

**WORKPLACE LEARNING PROCESSES IN  
SENIOR SECONDARY VOCATIONAL EDUCATION**

Cindy L. Poortman

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### *Title*

Workplace learning processes in senior Secondary Vocational Education

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SENIOR SECONDARY VOCATIONAL EDUCATION**

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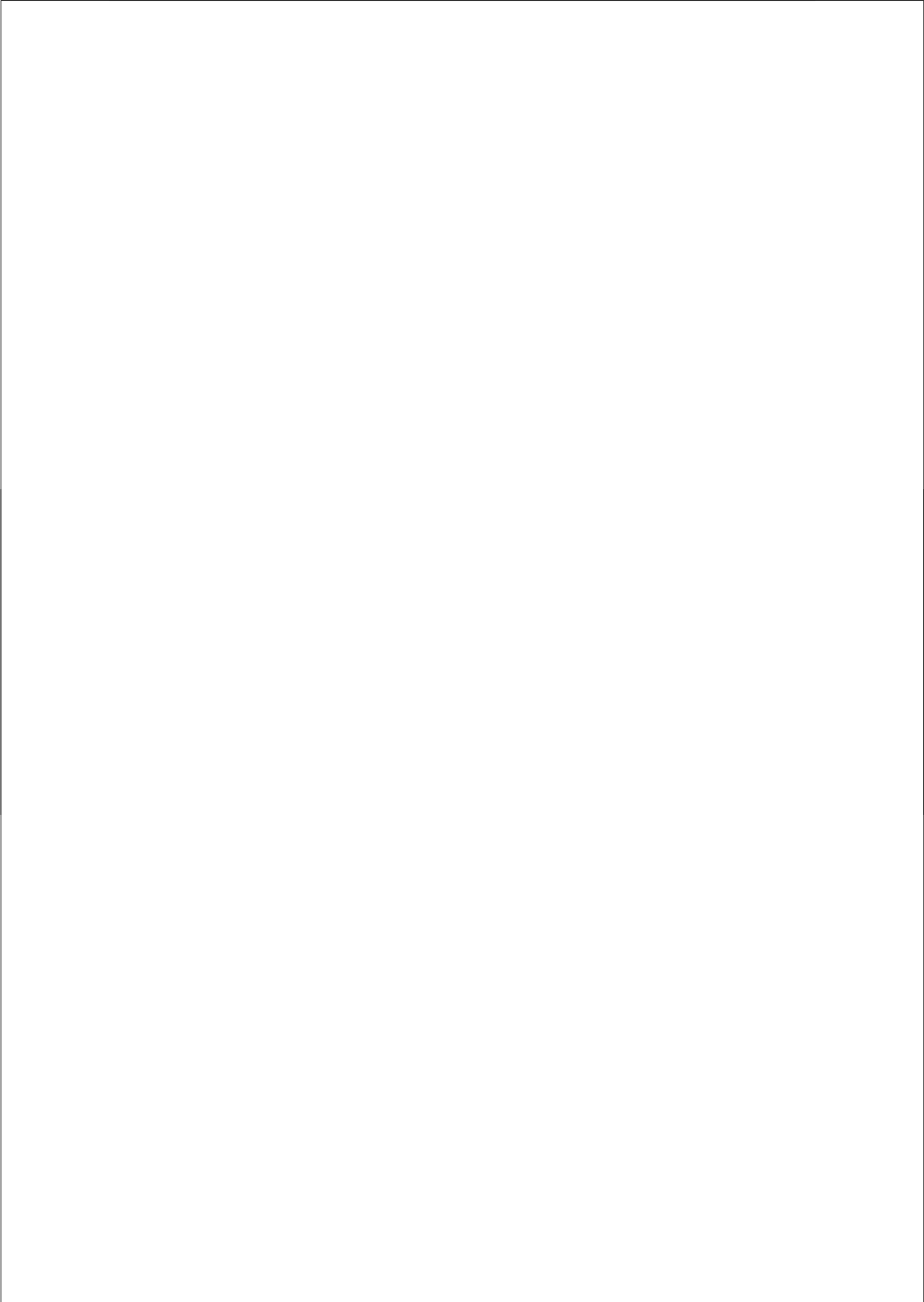
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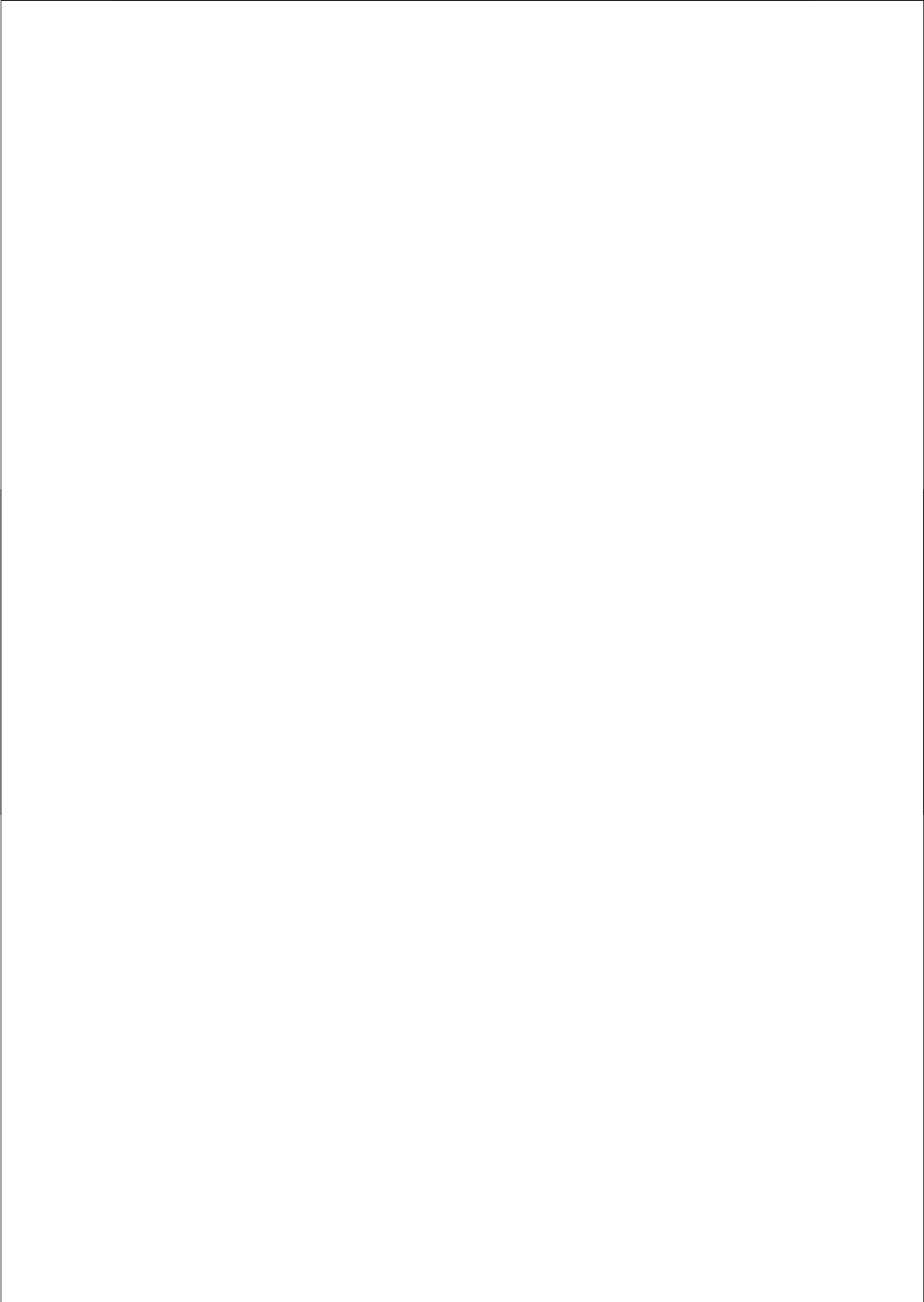
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Nieuwenhuis





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## Chapter 1

# Workplace learning processes in senior Secondary Vocational Education

### *1.1 Introduction to workplace learning*

Workplace learning in the context of senior Secondary Vocational Education (SVE<sup>1</sup>) is the subject of this study. In this chapter we aim to introduce this subject. In section 1.2 we discuss workplace learning in the context of labour organisations and in SVE. First, we give a brief historical impression in 1.2.1 to show how workplace learning was pushed aside by schooling, before interest revived more recently. In 1.2.2 we explain the role of learning in labour organisations. The workplace learning component in SVE, which we abbreviate to 'WPL', is discussed in 1.2.3. The reasons for the increasing attention to learning at work are explained in section 1.3. The lifelong learning argument is explained in 1.3.1. In 1.3.2 we explain why transfer is an important reason for the appeal of workplace learning. Some further claims are elaborated in 1.3.3.

However, workplace learning in general and in SVE specifically is subject to some paradoxes, which we identify in section 1.4. These paradoxes concern the transfer argument (subsection 1.4.1), WPL and informal learning (subsection 1.4.2), and the possible difference between pathways in SVE (subsection 1.4.3). Because of these paradoxes we question the learning potential of WPL in section 1.4.4. In section 1.5 we present the research questions aimed at further investigating WPL. We conclude with an outline in section 1.6.

### *1.2 Workplace learning in labour organisations and in SVE*

#### 1.2.1 Historical impression

On-the-job learning was a self-evident way of growing into the trade in the Dutch guilds at the time of the Middle Ages (Van der Klink, 1999). Apprentices would observe and imitate their master craftsman at work to learn the job. Throughout the nineteenth century, however, industrialisation and capitalism caused wage labour to become the general type of work relation in most European countries (Illeris & Associates, 2004). The differentiation in - and growing requirements of - this work impeded workplaces in their attempts to provide up-to-date training. Schooling therefore prevailed over training at the workplace. In the Netherlands, the schooling of workers was put in the hands of

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<sup>1</sup> mbo (middelbaar beroepsonderwijs) in Dutch.

technical schools. These technical schools were, however, closed around the start of the twentieth century for offering courses that were too theoretical in nature (Van der Klink, 1999). On the other hand, the vocational schools, in which theory and practice were combined, were maintained. They served to meet the growing need for schooled workers. In the twentieth century, school learning was the standard in the Netherlands (Van der Klink, 1999). Vocational education and training as well as company training schools provided training, which was still thought best to be theoretical in nature. From 1980 onwards there was increasing attention to learning at the workplace, in both education and labour organisations. Vocational education graduates did not have enough practical skills at their disposal to perform adequately in the work situation (Brandsma & Nijhof, 1999; Streumer & Van der Klink, 2004). On-the-job training was seen as one of the most important solutions to the problem of lack of connection between education and the labour market (Van der Klink, 1999). Before we elaborate on the arguments for this 'return' of the significance of workplace learning, we should like to explain briefly how learning at work is approached in labour organisations and in SVE.

### 1.2.2 Human Resource Development

In labour organisations, we discuss workplace learning in the framework of Human Resource Development (HRD). HRD is aimed at releasing the human potential in individuals, groups and organisations, through learning experiences that result from organised training, education and development activities (Nadler & Wiggs, 1986, p. 4). HRD activities are meant to improve both employee performance and the organisation as a whole (Nadler & Wiggs, 1986); they are specifically planned and organised to realise this goal. Regarding employee performance, for example, HRD activities may be required, because what was learnt at school may be too general for a particular job, or, due to rapid technological innovations, it may be out of date. In addition, employees may want, or be required, to develop towards more difficult or different jobs in terms of career development or because of reorganisations. Consequently, HRD may be directly focused on improving present job performance, on preparing an employee for a future job or on the general growth of an employee (Tjepkema & Wognum, 1999). It is, however, always deliberately planned and subject to goals that fit the company's policy. On the other hand, nowadays learning from work itself in a non-formal way is also perceived to be important, or may even be more so (Marsick & Volpe, 1999; Tjepkema & Wognum, 1999). This learning as such appears to contribute largely to competence development (Eraut, Alderton, Cole & Senker, 1998). However, in line with the lifelong learning and learning organisation trend (see 1.3.1), labour organisations may want to improve work practice by better facilitating such informal learning (Marsick & Volpe, 1999). Training is increasingly being replaced by 'learning' and preferably takes place on the job.

### 1.2.3 WPL in senior Secondary Vocational Education

Internationally, the match between vocational education and the labour market came into focus because of rising youth unemployment in different countries, as well as the



impact of technological innovations on the skills and diplomas required from around the 1980s (Brandsma & Nijhof, 1999). Growing concern about the match between education and the labour market caused a series of changes in both the organisational structure and the content of vocational education in the Netherlands (Nijhof & Van Esch, 2004). In 1981 the Wagner Commission was established to seek new industrial élan in the Netherlands. This commission recommended shared responsibility between industry and government (in 1984), for example by establishing sector-specific negotiating bodies between education and business and industry. It was also proposed that each individual should as a minimum be able to acquire a vocational qualification, and that vocational qualifications should be brought more into line with what was required in occupations and functions (Nijhof & Van Esch, 2004). As a result, the methodology for the development of targets, occupational profiles and training profiles to serve a qualification format became the subject of many concrete efforts, national discussion and international comparison. This created a climate for change (Nijhof & Van Esch, 2004, p. 17). To advise on the match between education and the labour market, the Rauwenhoff Commission was established in 1989. This commission (in 1990) went further, by recommending intensive cooperation between schools, business and industry, and government. Both the Wagner Commission and the Rauwenhoff Commission proposed dualisation as an important answer to the matter of connection between education and the labour market. However, the Dualisation (Van Veen) Commission (in 1993) concluded that many routes could lead to a vocational qualification (Nijhof & Van Esch, 2004). Participation in SVE had meanwhile (from 1984 - 1993) doubled and, according to the Dualisation Commission, the qualitative match was considered to have improved significantly. Ultimately, the Adult and Vocational Education Act ('WEB' in Dutch) came into force in 1996 to unite all forms of adult and vocational education in a single statutory framework<sup>2</sup>. Improving the connection between education and the labour market is an important aim of this act<sup>3</sup>.

Vocational courses of study are offered at five levels, ranging from assistant training to specialist's course of study. Levels, courses and duration are summarised in Table 1.1<sup>4</sup>. These levels are in line with the SEDOC classification (Nijhof & Van Esch, 2004).

Table 1.1: SVE levels, courses and duration

Level	Course	Duration
1 Simple executive work	Assistant's training	½ - 1 year
2 Executive work	Basic vocational training	2-3 years
3 Completely independent execution of work	Vocational training	2-4 years
4a Completely independent execution of work with broad usability	Middle management training	3-4 years
4b Specialisation	Specialist's training	1-2 years

<sup>2</sup> <http://www.minocw.nl/documenten/web8kwaliteitszorg.pdf> Retrieved June 25<sup>th</sup>, 2006.

<sup>3</sup> [http://www.logos-net.net/ilo/150\\_base/en/init/nld\\_9.htm](http://www.logos-net.net/ilo/150_base/en/init/nld_9.htm) Retrieved June 25<sup>th</sup>, 2006.

<sup>4</sup> [http://www.logos-net.net/ilo/150\\_base/en/init/nld\\_9.htm](http://www.logos-net.net/ilo/150_base/en/init/nld_9.htm) Retrieved June 25<sup>th</sup>, 2006.

Workplace learning is institutionalised as what is called ‘Beroepspraktijkvorming’ in Dutch SVE. The responsibility for this workplace learning component, which we abbreviate as ‘WPL’ (‘BPV’ in Dutch) is shared by the student, Regional Training Centres (ROCs in Dutch), Centres of Expertise for Vocational Education, Training and the Labour Market (CEs), and the companies in which students actually participate in WPL (further referred to as training companies). This responsibility is established in a formal learning agreement in which the rights and duties of the student, the ROC and the training company are laid down. The WPL mentors of the training company where students participate in WPL monitor the learning process. WPL teachers guide the student on the part of the ROCs.

Within this SVE system, either a work-based (w-b) pathway or a school-based (s-b) pathway<sup>5</sup> is intended to lead to the required competencies and diplomas. These pathways are equivalent to each other, as laid down in the WEB. In the s-b pathway, students go to school and participate in work placements for twenty to sixty per cent of the duration of the vocational course. In the w-b pathway, students are employed in a training company for more than sixty per cent of the time, and attend school for the remaining part. In the case of the w-b pathway, CEs are also a party to the learning agreement.

Although varying forms of organisation concerning the proportion of WPL, or type of curriculum (for example competence-based, modular courses or other) may prevail in different ROCs and among courses at the same ROC, WPL plays a large role in both pathways. According to Smith (2003), the increasing interest in workplace learning has been generated by a heightened awareness of its contribution to enterprise and national competitiveness. This trend appears worldwide. In addition, concerns about the effective transfer of the knowledge gained in educational situations to situations outside education have aroused this interest in workplace learning (Billett, 1996; Resnick, 1987). Bailey, Hughes and Moore (2004) discuss some more claims advocating workplace learning, in a context similar to that of SVE. We elaborate on arguments for the appeal of workplace learning in the following section.

### ***1.3 The appeal of workplace learning***

#### **1.3.1 Lifelong learning argument**

From the 1980s onwards, a reverse trend to that of increased schooling appears internationally, in the sense that learning is returned to the workplace (Illeris & Associates, 2004). Workers are presumed to be willing and capable of learning and performing new tasks and roles, and should be prepared to be redeployed in the flexible new workplace (Casey, 1999). Rapid changes in economic, technical and social

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<sup>5</sup> s-b pathway: ‘BOL’ in Dutch; w-b pathway: ‘BBL’ in Dutch.

conditions (Dehnbostel & Dybowski, 2001) seem to underlie a transformation of the nature of work and new thinking about the modern enterprise in our current globalised economy (Fuller & Unwin, 2002). Knowledge in the form of human capital as represented in human beings and as embodied in technology, is increasingly being recognised as central to economic development (OECD, 1996a). Investment in human capital is thought to be essential to the maintenance and improvement of European economic competitiveness. This development has encouraged greatly increased interest in education and training within labour organisations (Van Wieringen & Attwell, 1999). According to Casey (1999), the challenge for organisations and their training and development specialists is to find ways in which diverse learning experiences, effective for both the employee and the organisation, can be provided. Continuously changing work requires continuously learning employees (see also Payne, 2000); this development is translated into the trend of 'lifelong learning'. Although workplace learning is not a new concept, Stern and Sommerlad (1999, referred to in Fuller & Unwin, 2002) argue that this new thinking has made workplace learning acquire visibility and saliency. In perceiving learning for work more and more as learning integrated into work and taking place continuously, the focus shifts towards designing the workplace as a powerful learning environment (Streumer & Van der Klink, 2004; Van der Klink, 1999). Work organisations are expected to transform into 'learning organisations' (Van Woerkom, 2003).

Economic growth and international competition are thus believed to be fostered through the adoption of a 'lifelong learning for all' strategy (OECD, 1996b). This notion has consequences that reach beyond the labour organisation context. Governments are often involved in efforts to improve the quantity and quality of training. This involvement can be exercised via adult and vocational education and training. When work and learning are combined during initial training, less difficulty is experienced with this combination in the future career. In this way, initial training may be a foundation for lifelong learning (Van Wieringen & Attwell, 1999). Also in the Netherlands, the notion has been adopted that societal developments of a technical, economic and social nature force the education system to adapt. Education is no longer assumed to prepare people for their entire career. Content and didactic concepts in (S)VE are the subject of discussion, because of present and future demands to employees and school-leavers caused by the emergence of new technology and changing markets (Nijhof, 2000). Because of the intention to design (S)VE on the basis of competencies, learning in professional practice has become even more important (Onstenk, 2003a) as well.

Vocational education is also expected to contribute to the social and cultural development of participants in most European countries. There is a special responsibility to prevent the marginalisation and social exclusion of particular groups, implying the need for practice-oriented vocational education (Van Wieringen & Attwell, 1999). Continuous education and training, starting with initial training and carrying on throughout a career, is important for employees themselves, their employers

and society as a whole. In the Netherlands, the Rauwenhof Commission (in 1990) identified lifelong learning and employability as crucial skills to equip people with the ability to adapt to new developments (Nijhof & Van Esch, 2004).

### 1.3.2 Transfer argument

Transfer is about applying what has been learnt in a context different from the learning context (Gielen, 1995; Illeris & Associates, 2004). Transfer is viewed as problematic, especially in the case of essentially different contexts, such as school and the workplace (Resnick, 1987). However, if people learn in contexts that are the same or very similar to the ones in which what has been learnt should be applied, the transfer problem is expected to be solved or reduced. Actual work experience is therefore theoretically more likely to enhance work-related skills than is classroom-based learning (Bailey et al., 2004, referring to Resnick, 1987). This is also reflected in the idea that “a craft is not learnt at school, but in practice”<sup>6</sup>. Some competencies or parts of competencies, such as ‘being able to work in a team under real work-pressure’ are thought to be very difficult to develop at school or in formal training situations in such a way that they can be applied in a real work context. Consequently, acquiring and developing occupational competence, which also involves attitudinal change, might only be realised by the performance of occupational tasks (Bolhuis, 2003; Nieuwenhuis, 1991). Globally, the trend is to make workplace learning more central in vocational education to facilitate the transition from school to work (Brandsma & Nijhof, 1999).

In companies, on-the-job training may also be implemented because the context of application then becomes the context of learning. Instead of off-the-job training, work-related learning as such is believed to play a major role in competence development (Van Woerkom, 2003). For example, Eraut et al. (1998, p.1) found that “formal education and training provide only a small part of what is learned at work” in their study of the development of professionals’ knowledge and skills in employment. Solving work problems, improving quality and productivity, coping with change and social interactions with others at work together form a major source of learning (Eraut et al., 1998). Job experience and work assignments potentially provide the opportunity to try out skills and behaviours that are of importance, which fosters learning (Poell, Van Dam & Van den Berg, 2004).

### 1.3.3 Other claims for the appeal of workplace learning

Bailey et al. (2004) have identified and tested some further claims made for workplace learning. Their context specifically concerns the combination of high school learning with internships (which they refer to as work-based learning). Such a combination is similar to the SVE context. The claims were tested against data from observations and interviews with students in work-based learning placements from 14 different courses in different

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<sup>6</sup> <http://www.colo.nl/?134> Retrieved June, 25<sup>th</sup>, 2005.

regions. Several of these students were enrolled in a community college (comparable to ROCs). We therefore discuss these claims as well.

Academic reinforcement, skill development and learning about career options, youth development, and the development of 'new modes of thought' were claims tested by Bailey et al. (2004). They found, however, that, although academic reinforcement does happen, the work experience can be expected to reinforce only a small part of any high school curriculum. This claim is of less importance to the purposes of the current study, because academic reinforcement is not a direct purpose of WPL in SVE. Concerning the skill development and career option claim, Bailey et al. found that, although students do learn practical skills at some level and to some extent, they could also identify sites where many of those skills were not being developed. Additionally, Bailey et al. even bring up the problem of transfer as applying to work-based learning in a negative sense: "How will participating in those skilled (or semiskilled) activities shape their (the interns') participation in other settings?" (Bailey et al., 2004, p. 134). Their data do not indicate that students generalise the meaning of their experience. In other words, although the context of learning and the context of application may be more similar in workplace learning, a transfer problem always remains. School learning may not transfer to other settings, such as the workplace. However, workplace learning may not transfer to other workplace settings either. This issue is further elaborated on in subsection 1.4.1.

Concerning the career options claim, the 'daily-life perspective' on careers was not usually transcended by interns. Although interns did discuss educational preparation and career paths with colleagues, the information was limited. However, although learning about careers could have been better, Bailey et al. (2004) think it was substantial and superior to what could have been realised in classrooms. In SVE, WPL takes place in the sector in which students have already chosen to develop a career. On the other hand, they are still young and many students change to another sector somewhere during the course. Of course, it is important that students therefore learn about career options as early in the course as possible. Addressing the broader issues of preparation, alternative paths, compensation and rewards and other choices might rather be the function of the school, according to Bailey et al.

SVE students are presumed to develop societal competencies, in addition to occupational and career competencies. Societal competencies are related to what Bailey et al. (2004) call youth development. Work-based learning was found to have significant potential for contributing positively to youth development in their study. Conclusively, Bailey et al. tested the claim whether 'new modes of thought' would be developed through work-based learning. Their idea is that students in work-based learning learn to think in new ways compared to what they learn in classrooms. One example of such new modes of thought is problem definition and flexible problem-solving. Bailey et al.

sketch a situation in which students, who are supposed to be learning in addition to working, may ask broader questions than those usually asked in the workplace (by graduated employees), such as 'why' questions. Students turned out to sometimes have the opportunity to define and solve problems in a flexible way; and they learnt to participate in teams. On rarer occasions, they were even engaged in higher-order thought. However, although these and other 'new modes of thought' did occur, they were not inevitable. As Bailey et al. recognise, students may approach the work experience only as a new worker, focussing on the production process and not on learning. The supervisor may not guide the student to take an alternative approach to work either. Still, workplace learning has the potential for students to develop new modes of thought, an element that is related to the lifelong learning argument for workplace learning.

Altogether, Bailey et al. (2004) found the potential for work-based learning to contribute positively to the element of youth development. Their study showed that skill development, career options exploration and developing new modes of thought occurred to some extent in their respondents' work-based learning. However, none of these learning outcomes were inevitable. In addition, transfer might still be a problem and more general knowledge might not be developed. Learning in the workplace may be less efficient, less incremental and less accountable than teacher-controlled processes (Bailey et al., 2004, p. 167). Consequently, even though a variety of reasons appear to underlie the increased attention to learning at work, we have some grounds for questioning its appeal. Some paradoxes regarding WPL in the context of SVE are explained in the following section, concluding with a general reservation regarding the learning potential of WPL in SVE.

## **1.4 Paradoxes of WPL in SVE**

### **1.4.1 WPL and transfer**

Applying what was learnt at school to situations outside school is problematic. Workplace learning is expected to reduce or solve this transfer problem. As Van der Klink (1999) puts it: "because in workplace training situations the training and the work situation correspond completely, it is expected that tasks are being learnt in the way that they have to be performed at work" (Van der Klink, 1999, p. 4). This notion of 'identical elements' stems from Thorndike and Woodworth (Bransford, Brown & Cocking, 1999). Thorndike and Woodworth believed that the mind reacts in a particular way to particular situations and that improvement in any single mental function does not automatically lead to improvement in what we call similar functions. The more variation between a learning situation and an application situation, the less transfer is likely to occur (Thorndike & Woodworth, 1901).

If we accept the identical elements theory, workplace learning will still be problematic in terms of transfer. Some degree of transfer problem will always remain, because there is always a lack of similarity between contexts to some extent. What was learnt in a particular workplace setting may still be difficult to apply to other workplace situations (Bailey et al., 2004). Even more problematic is the fact that an important aim in the SVE context is that theory as learnt at school is applied to work practice; and that more general understanding should be developed in addition to specific skills. There are even fewer identical elements between the contexts of school and workplace. If transfer is indeed viewed as applying packages of knowledge and skills that remain intact (Tuomi-Gröhn, 2003) to a different situation, little transfer could ever occur (Tennant, 1999). Such a narrow view of transfer is highly unwelcome, because the idea that what was learnt has some generic application is a fundamental tenet of education (Tennant, 1999, p. 166). Those who accept theories of situated learning indeed challenge the notion of portable knowledge: they believe that knowledge is fundamentally situated (Tuomi-Gröhn, 2003, referring to Beach and to Lave). When knowledge is not viewed as a stand-alone entity and the context is not accepted as a clearly defined area, nothing can be carried over (Sfard, 1998). We need an alternative to the idea of identical elements, to enable the notion of 'generic application' of education.

In the 1950s, good problem-solving and other intellectual achievements were thought to be the result of general strategies (Perkins & Salomon, 1989). Good thinking depended mainly on the availability of general heuristic knowledge. However, research, for example into expertise in the area of chess started to yield contradictory findings (Perkins & Salomon, 1989). The experts' rich database of particular knowledge appeared to be the basis of their performance rather than general heuristics. Thinking thus appeared to depend on specific, context-bound skills and units of knowledge, with little application to other domains (Perkins & Salomon, 1989). This notion connects to the identical elements theory. However, more recent studies do allow for transfer to take place, especially when a conscious effort is made to realise this (Perkins & Salomon, 1989). Transferring the understanding of the central principles of a task to other similar tasks has been proven to be possible (Tuomi-Gröhn et al., 2004). This allows for an alternative perception of transfer. Instead of seeing transfer as an event in which a person suddenly becomes able to apply knowledge acquired in one context to a different one, transfer should be perceived as a learning process in which the learner also learns how to apply what has been learnt in the new context (Eraut, 2004; see also Bransford et al., 1999; Tennant, 1999). As suggested by Tennant (1999), Eraut (2004) and Illeris and Associates (2004) some further learning appears to be required in order to realise transfer. Judd (referred to in Tuomi-Gröhn & Engeström, 2003) questioned Thorndike's view by proposing that transfer depends on general rules and theoretical principles that underlie the learning content rather than on identical elements. Perkins and Salomon identify two different mechanisms of transfer. Firstly, the 'low road' to transfer is reached by a lot of practice in a large variety of situations. This should lead to mastery or

near-automaticity (Perkins & Salomon, 1989, p. 22). Secondly, the 'high road' refers to the careful abstraction of a principle. When students are urged to understand the reasoning underlying principles and to apply them to different situations, transfer can be supported.

We conclude that transfer possibilities are inherent in the learning process (Illeris & Associates, 2004). For example, according to Säljö (2003, referring to Katona), learning with understanding is superior to memorising, in terms of the possibilities to apply this in different contexts. When perceiving transfer as a learning process or as part of the learning process, transferring learning from school to work becomes possible. This is not the case when the identical elements theory is accepted. According to Guile and Young (2003) the transfer of learning between schools and workplaces does take place. It is, however, anything but a simple mechanical process (Guile & Young, 2003).

These considerations regarding transfer do not indicate that workplace learning as such indeed reduces let alone solves the transfer problem. As Perkins and Salomon argue neither low-road nor high-road transfer conditions are usually met in the real world. Because transfer is identified as inherent in the learning process, what is actually of interest is the way in which learning as a process takes place in WPL.

#### 1.4.2 WPL and informal learning

In a vast body of literature, informal learning and workplace learning are bracketed together (for example Eraut et al., 1998; Evans & Rainbird, 2002; Marsick & Volpe, 1999). This concept of informal or non-formal learning is subject to a considerable lack of agreement in the literature (Colley, Hodkinson & Malcolm, 2003). Different criteria are used by different writers. On the basis of a major literature review, Colley et al. distinguish 20 different attributes of 'formality' and 'informality' in learning, including "extent of planning or intentional structuring" and "whether outcomes are measured" (Colley et al., 2003, p. 35). The confusion is caused by two different dimensions being related to the criteria, which - to make matters worse - partly overlap (Colley et al., 2003). In the political dimension, informal learning is contrasted with formal learning. Informal learning in the political dimension is learning that is not part of a prescribed framework or an organised learning event; no teachers are present; no qualifications are awarded; nor are outcomes externally specified (Eraut, 2000). Many people have learnt or are learning in the workplace, or in a range of other non-educational contexts, without ever receiving or having received any acknowledgement of the results. The political dimension is concerned with the emancipation of these learners. To connect to what people already know and adjust trajectories of learning to their needs, recognition of the so-called 'tacit skills' of adult learners or woman returners<sup>7</sup> is of importance (Colley et al., 2003) for the lifelong learning policy that many governments pursue nowadays.

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<sup>7</sup> Women who have had a career break.



From the theoretical dimension, informal learning is perceived as the natural, daily learning resulting from participation in work processes. Implicit learning, tacit knowledge and incidental learning are concepts often related to this definition of informal learning. At first sight, informal learning in the theoretical dimension seems to be the same as in the political dimension. Natural, daily learning is not directed by a teacher nor is it accredited. On the other hand, we do not think that natural, daily learning could not take place at all within an organised, formal framework. According to Straka (2004), planned and unplanned activities may take place in both settings. This is also the paradox within the SVE context. SVE has a prescribed learning framework; teachers are present and learning is accredited. WPL, however, takes place in real companies; students participate in real work processes. We wonder whether the school's formal measures for guiding WPL can really penetrate these workplaces, where production is still the main goal. Certainly learning that is not directed by the formal framework must take place to some extent. This thought is also raised because of the difference between the school-based and the work-based pathway. In the latter, WPL appears to be a lot less formalised than in the school-based pathway. Students participate in the real work process to a larger extent. Consequently, if the work-based pathway is supposed to lead to the same output as the s-b pathway, an important part of this output may be realised through informal learning. Informal learning in the theoretical sense may therefore still occur, although the framework is formal, teachers are involved and learning is accredited.

However, maintaining the assertion that informal learning in the theoretical sense may occur within the formal framework of SVE is only confusing. The reason for discussing the concept of informal learning is that we need to be aware of the fact that learning is not always produced or guided - as intended - by the formal framework. WPL learning may occur differently and may lead to different (though not necessarily negative) outcomes than intended or foreseen in this framework. Consequently, what is of importance is the role of school assignments, learning plans and other measures by the school that are intended to direct learning, because we are interested in the way in which these control measures are used in practice. To avoid confusion by involving the informal learning discussion, we prefer to approach this as 'integration' between school and workplace. This concerns the degree to which the ROC is ensuring the integration of the vocational course at school into the student's workplace activities. Such an approach is also directly linked to the results of the evaluation of the WEB (Adult and Vocational Education Act) relating to the lack of control over WPL and the lack of connection between ROCs and training companies.

#### 1.4.3 Different pathways, same results?

Two essential differences between the SVE pathways are the proportions of WPL and the difference in the status of the learner. Students in the w-b pathway have the status of employee, they have a labour contract and are paid. More than 60 per cent of their course

is designated for WPL. Work placement for the s-b pathway students covers between 20 and 60 per cent of the course<sup>8</sup>. They have a supernumerary status (Onstenk, 1997). Even though WPL proportions between the pathways may not vary much in their average variants, the fact that w-b pathway students are treated as employees might make all the difference. In addition, as their training company's employees, w-b pathway students remain in the same training company throughout the course, with the exception of courses in which an external work placement period is organised. S-b pathway students, however, have the opportunity of experiencing WPL in different training companies, in different subsectors. These formal differences are summarised in Table 1.2.

Table 1.2: *Formal differences between pathways in SVE*

Element of difference	School-based pathway	Work-based pathway
WPL proportion	Between 20 and 60 per cent of course	More than 60 per cent of course
Student status	Supernumerary	Paid employee with labour contract
Setting	Work placement in different companies throughout course	Job in same company throughout course; with possible exception of an external work experience period

From an educational perspective, the w-b pathway seems to be pedagogically less well founded than the s-b pathway. Production has priority in the workplace; there is less time set aside for learning, and learning may be too context-specific (Achtenhagen & Grubb, 2001; Den Boer & Jellema, 2002). These disadvantages might be overcome by imposing a structure of pedagogic measures on the w-b pathway, as is the intention in the SVE framework. However, the lack of control over WPL reported by the WEB Evaluation Commission was especially evident in the w-b pathway (Stuurgroep evaluatie WEB, 2001). We may therefore question whether the w-b pathway indeed leads to the same competencies as those developed in the s-b pathway. On the other hand, workers generally attribute greater learning effects to workplace learning than to learning in school (Achtenhagen & Grubb, 2001, referring to Kloas). From the WEB evaluation, w-b pathway graduated students also appeared to be valued more than s-b graduated students, in the opinion of employers (Heijke, 2001).

Den Boer and Jellema (2002) set out to explore the differences between the two pathways, in terms of intake, developed competencies and career perspectives. Their results show that the pathways attract different types of students and lead to different positions on the labour market (even after correction for differences in intake). W-b pathway graduated students more often have a job after having graduated than s-b pathway students. S-b pathway graduated students, however, turn out to eventually acquire higher labour market positions, with related incomes, than w-b pathway graduated students. Jonker (2001) found a similar result for the situation of full-time and dual-track auditors (higher education). Den Boer and Jellema conclude that the pathways fulfil different functions and different learning needs (Den Boer & Jellema,

<sup>8</sup> <http://www.minocw.nl/factsheets/354> Retrieved June 25<sup>th</sup>, 2006.

2002). These results therefore conflict with the idea that the pathways are equivalent. Den Boer and Jellema were not able to determine why employers prefer to hire w-b pathway students. In addition, they were not able to investigate whether the same competencies are developed in both pathways; only intake and output were shown to be different. S-b pathway student graduates may simply go after a higher valued job themselves and may indeed be valued as such in practice, as is historically the case for full-time education. Another option is that in the s-b pathway, more competencies are developed or competencies are developed to a higher extent. The black box between intake and acquired labour market position was not opened by Den Boer and Jellema's study. They recommend further research into learning processes, taking into account background and the needs of the learners, rather than further research into the equivalence of the pathways in terms of labour market positions.

#### 1.4.4 The learning potential of WPL

In addition to the paradoxes regarding WPL in SVE that call for an investigation of WPL processes, workplace learning in general raises some doubts. According to Säljö (2003, p. 317), "the assumption that present-day work practices can serve as criteria for successful learning is grossly overrated". Workplaces do not necessarily provide ideal conditions for learning (Boreham, 2004, p. 222). Billett (2001) identifies several limitations of workplaces as learning environments. Relevant to WPL, these concern inappropriate learning, limited or denied access to work activities and to guidance required for learning, and difficulties with more implicit, tacit knowledge. New workers or students may only learn the shortcuts to doing the job; there may be little time or opportunity to engage in either routine or non-routine tasks or to access required protocols and other relevant documents; colleagues may not be willing or have time to provide guidance and feedback. To maximise "what is provided freely by the workplace" (Billett, 2001, p. 9) and reduce the limitations of learning at work, Billett (2001) therefore presents a 'curriculum for the workplace'. WPL is, in fact, subject to a curriculum, because it takes place within the SVE framework. However, the WEB evaluation has shown that this framework does not work as intended. According to the evaluation results, ROCs fail to adequately direct WPL (Stuurgroep evaluatie WEB, 2001). Learning in work settings seems to take place parallel to rather than in integration with school learning (Nieuwenhuis, 2001). Communication between ROCs and training companies is not optimal. These findings result from interviews with ROC management, examination institutions and the Education Inspectorate. Consequently, in addition to the paradoxes in SVE and the doubts regarding the learning potential of the workplace in general, the learning potential of WPL in SVE does in any case appear to be problematic.

### 1.5 *Research questions*

We have shown that the premises underlying the benefits of workplace learning are at the least debatable. Firstly, transfer is not simply more likely to occur through

workplace learning than through school learning. Transfer is part of the learning process, and the question remains how this learning process develops in WPL. In addition, the discussion of the claims of Bailey et al. (2004) shows that workplaces are not automatically powerful learning environments. And even if we accepted the general claims regarding the benefits of workplace learning, a problem would remain in the specific context under study. In SVE, the WEB evaluation has shown that WPL is problematic. Moreover, the question is whether learning in both pathways does indeed develop similarly.

This does not mean that our starting point towards workplaces as learning environments is pessimistic from the outset. Although the WEB evaluation respondents indicated lack of control over WPL and lack of integration between theory and practice as important problems, we assume that learning does take place in WPL. The question is how.

Understanding from a learning process perspective seems to be lacking in the discussion of claims regarding general benefits, the WEB evaluation results, and the explanation of formal differences between the s-b pathway and the w-b pathway. According to Onstenk (1997), previous studies concerning work placements in the Netherlands present hardly any useful information about *how* students learn. Most research is aimed at the design of the work placement or the activities of mentors and educators. He argues that vocational education is criticised because too little attention is paid to learning processes. This has been improved somewhat in recent years, but it has not been optimised (Onstenk, 2003b). Although schools and learning companies may create a range of learning possibilities, as a result of policy measures or on their own initiative, students need to interpret and make use of these possibilities (Van der Sanden, 1997). Insight into students' learning activities and influencing factors is therefore required. Earlier Dutch studies that examined work-related learning processes (De Vries & Meijer, 1983; Nieuwenhuis, 1991), did so for the system of vocational education before the implementation of the WEB, or only regarding what would nowadays be the s-b pathway variant of WPL (Onstenk, 1997, also referring to Meijer & Lucassen; De Vries; Van Bolhuis-Poortvliet & Snoek). Onstenk (1997) recommends further research into patterns of learning.

According to Van der Sanden and Teurlings (2003), research into work-related learning processes is still at an early stage. Guile and Young (2003, p. 66) argue that "the idea that workplaces can be primary opportunities for authentic learning because they provide real-life contexts is based on a misleadingly simplistic understanding both of contexts and their role in supporting learning and the process of transition between school and work". This also indicates that it is necessary to examine learning from a process perspective (see also Resnick, 1987).

By describing what learning is taking place, and how, we aim to show what the WEB evaluation outcomes concerning WPL mean in practice. We believe that a thorough

description of how learning is taking place in the current situation would be helpful for developing and implementing interventions to improve learning in WPL. We have therefore formulated the first research question as follows:

1. How can we describe WPL learning processes and related learning outcomes?

In addition, the formal differences between SVE pathways as well as the unequivocal results of research into their equivalence, give rise to the question whether students in the work-based pathway indeed follow learning processes similar to those of students in the school-based pathway, leading, in turn, to comparable learning outcomes. The second research question therefore, is:

2. How can we distinguish the work-based pathway from the school-based pathway in terms of WPL learning processes and related outcomes?

## **1.6 Outline**

In Chapter 2 we examine how workplace learning can be analysed as a process, and we proceed to develop a research model for the description of WPL. Chapter 3 is concerned with the design of the study. We explain why we make use of qualitative case studies and a descriptive approach. In Chapter 4, this design as applied to cases in the SVE Care course is discussed. The results of the Care case studies are presented in Chapter 5 and in Chapter 6. In Chapter 7 design specifications and analysis and results and conclusions related to the case studies into the SVE Retail course are discussed. We present the conclusions and recommendations in Chapter 8.



## Chapter 2

### Workplace learning as a process

*You grieve you learn  
You choke you learn  
You laugh you learn  
You choose you learn  
You pray you learn  
You ask you learn  
You live you learn*

*Lyrics by Alanis Morissette (1995)*

#### 2.1 Introduction

Summarising Chapter 1, workplace learning is subject to expectations regarding lifelong learning, transfer, and other possible benefits, such as learning about career options. Workplace learning is an important part of Dutch SVE. However, because of more general uncertainties concerning the process and outcomes of workplace learning, in addition to problems with WPL in SVE more specifically, research into WPL processes is required. We therefore aim to describe these processes, and the differences in WPL between w-b and s-b pathway students. In this chapter we examine how workplace learning can be analysed as a process, and we proceed to develop a research model for the description of WPL in SVE. In section 2.2 we define learning, briefly discuss the workplace as a context and compare major learning theories. In section 2.3 we introduce Illeris' learning theory as a way of combining different dimensions of learning. This theory is further elaborated in sections 2.4 and 2.5. We present a research model for describing WPL in section 2.6.

#### 2.2 Views on learning

##### 2.2.1 You live, you learn?

Learning is defined in many ways in the literature: “the very definition of learning is contested” (Schoenfeld, 1999, p. 6). Learning can be viewed as a ubiquitous phenomenon. As in Morissette’s song referred to at the start of this chapter, *living* is learning within this view. This popular vision of learning reflects the idea that learning is a daily, ongoing process (Van Woerkom, 2003; Wenger, 1998) that people go through always and everywhere (Bolhuis & Simons, 2001). We do not, however, entirely agree with this view. Although learning is not restricted to the domain of schools either, there are some criteria for distinguishing learning. Shuell (1986) discusses three criteria for defining learning that are either explicitly or implicitly involved in nearly all conceptions of learning, even though definitions of learning generally vary in their

formulation. Firstly, learning implies a change in behaviour or the capacity for behaviour. Secondly, this change must be relatively lasting. Although it is difficult to determine for how long the change has to last, the purpose of this criterion is also to rule out temporary changes in behaviour caused for example by taking drugs (Schunk, 2004). Thirdly, the change should result from practice or experience, ruling out changes caused naturally by maturation or ageing.

### 2.2.2 The workplace as context

Although we do not believe that people always learn everywhere, learning is not restricted to such obviously educational situations as a school course or an HRD course either. Work as such is viewed as an important source of learning (Van Woerkom, 2003). Workplace learning is unique in relation to the context rather than in relation to the mechanism of learning. For example, Bolhuis and Simons (1999, p. 16, translated from Dutch) define workplace learning as “the realisation of a relatively lasting change in knowledge, attitudes and skills” in the context of work, and these changes are supposed to lead to changes in performance and work processes for individuals, groups and/or the labour organisation. This definition corresponds with the first two criteria for defining learning as formulated by Shuell (see subsection 2.2.1) in the first part; the second part indicates that the workplace is concerned as a context. To approach learning as a process, we turn to learning theories (Merriam & Caffarella, 1999). These theories do not necessarily consider workplace learning specifically. However, we take the workplace into account as the context for learning in this study. This role is further elaborated in subsection 2.6.3.

### 2.2.3 Main learning theories

According to McInerney (2005), cognitive psychology, behavioural psychology, social cognitive theory and humanism are four basic emphases in educational psychology. In Merriam and Caffarella (1999), constructivism is also discussed. We provide an overview of these main theories to position the orientation followed in this study in relation to these theories.

Behaviourism dominated the psychology of learning particularly in the first half of the twentieth century (Schunk, 2004). Watson (Bransford et al., 1999) asserted that the behaviour of human beings, rather than consciousness is the subject matter of psychology. Learning is viewed as a change in the rate, frequency of occurrence, or form of behaviour or response, which occurs primarily as a function of environmental factors (Schunk, 2004, p. 17). The formation of connections between stimuli (environmental events) and responses changes behaviour, and internal processes are not required to explain this learning. Behaviourism still influences current thinking, for example in the systematic design of instruction and the formulation of behavioural objectives (Schunk, 2004). From the cognitive orientation, behaviourists were criticised because learners’ minds should not be seen simply as a passive exchange-terminal



system, where the stimuli arrive and the appropriate response leaves (Merriam & Caffarella, 1999). Learners' thoughts, beliefs, attitudes and values also influence learning. Social cognitivism (or social learning theory) started to challenge behavioural theories from the late 1950s. This theory considers the interaction between the environment and the individual, and not solely the direct response of learners to their environment, in addition to the mental processes of learners. Humanist theories consider learning from the perspective of the human potential for growth (Merriam & Caffarella, 1999). Learners are expected to assume primary responsibility for their own learning, and the affective and cognitive dimensions of learning are stressed. The influence of constructivism has increased especially in recent years; however, the main influences on this theory were Piaget's development theory and Vygotsky's cultural historical theory (Schunk, 2004). Both Piaget and Vygotsky were born in 1896. References to Vygotsky's work were, however, banned in the Soviet Union until the 1980s (Schunk, 2004, referring to Tudge & Scrimsher). His work (or translations<sup>1</sup> of it) therefore only became available several decades after his death (1934). Psychological factors can only be understood in a historical perspective and based on interaction with the cultural environment, according to the cultural historical tradition approach (Illeris, 2002). Corresponding to Piaget's constructivist approach, this involves the active development of psychological structures, based on interaction between the individual and his environment. Constructivism argues that there is no single scientific truth and that learners form their own knowledge, based on their own unique beliefs and experiences (Schunk, 2004). There are, however, different orientations within constructivism for example regarding the nature of reality, the role of experience and whether the making of meaning is mainly individual or mainly social (Merriam & Caffarella, 1999). In Table 2.1, the major orientations to learning are summarised.

### ***2.3 Combining different dimensions of learning***

Schoenfeld (1999) is of the opinion that there is lack of synthesis between the social and cognitive dimensions of learning. Table 2.1 also illustrates that the cognitive and the social dimension are not typically integrated, except maybe in social cognitivism. According to Illeris (2002, referring to Bandura), however, social cognitivism is still rather cognitive in emphasis. Social interactions are taken into account but primarily from the psychological viewpoint (Wenger, 1998).

According to Sfard (1998), learning is considered either from the 'acquisition metaphor' or from the 'participation metaphor'. In the acquisition metaphor, learning is viewed as the acquisition and accumulation of knowledge. This metaphor basically emphasises the human mind as a container that can be filled with knowledge. According to the participation metaphor, learning is an ongoing activity, which is never considered

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<sup>1</sup> For example Thought and language, 1962, which was also translated in German: Denken und sprechen, 1964.

separately from the context within which it takes place (Sfard, 1998). Learning is 'situated' and characterised as 'legitimate peripheral participation': increasing participation in communities of practice (Lave & Wenger, 1991). On the one hand, the learner develops the ability to communicate in the language of this community and act according to its norms. On the other hand, the community changes because the new learner becomes a member; the learner turns into a part of the team (Sfard, 1998).

Table 2.1: *Main learning theories (mainly based on Merriam & Caffarella, 1999; Schunk, 2004)*

Behaviourism	Cognitivism	Social cognitivism	Humanism	Constructivism
Learning is manifested by a change in behaviour, caused by forming associations between stimuli and responses. Elements in the environment determine what is learnt; mental phenomena are not necessary to explain learning.	Learning is an internal mental phenomenon. Learners' thoughts, beliefs, attitudes and values influence learning; sensations are interpreted and given meaning.	Learning is an information processing activity, during which information about the structure of behaviour and about environmental events is transformed into symbolic representations that serve as guides for action (Schunk referring to Bandura). Behaviour, cognitive and other personal factors and environmental events operate as interacting determinants of each other.	Learning is a function of motivation, involving choice and responsibility. Self-directedness is stressed; self-actualisation is the primary goal of learning.	Learning is the construction of meaning from experience. Learners build their own mental structures when interacting with an environment (Wenger, 1998).  Individual orientation: adaptation of cognitive schemes to environment, dependent on previous and current knowledge structure. Social orientation: making meaning as a dialogic process involving social interaction.

As Sfard notes (1998, p. 6), "The act of acquisition is often tantamount to the act of becoming a participant", and, if so, the metaphors should not be considered separately or as mutually exclusive. An adequate combination of the acquisition and the participation metaphor is therefore required. According to Illeris (2002), learning should be understood as both an individual (mental activities) and a social (interaction) process. His view is based on an extensive theoretical study using Piaget's theory as a starting point, from which a broader perspective is gradually developed (Illeris, 2002). This means that Piaget's almost entirely cognitive focus on learning has been expanded by the inclusion of both an emotional and a social dimension of learning. Defining learning as "any process that leads to psychological changes of a relatively lasting nature and which are not due to genetic-biological conditions such as maturation or ageing" (Illeris, 2002, p. 24), Illeris argues that learning is "a highly complex matter that always comprises three different dimensions" (2002, p. 9). Within the cognitive, emotional and social dimension, two different processes are involved in integration. The first process is the internal acquisition process, relating to the prior knowledge and motivational aspects of the learner (on the cognitive-emotional side of learning); the second is the external interaction process between the learner and his material and social environment (on the

social side of learning). This latter process includes the ‘practice or experience’ referred to in the third criterion for learning, as discussed in subsection 2.2.1. The first (psychological change) and second (relatively lasting) criteria are also addressed by the definition. This concept of learning is basically constructivist in nature because the learner himself actively constructs his learning as mental structures (Illeris, 2003, p. 167). In Figure 1 Illeris’ notion of learning is visualised.

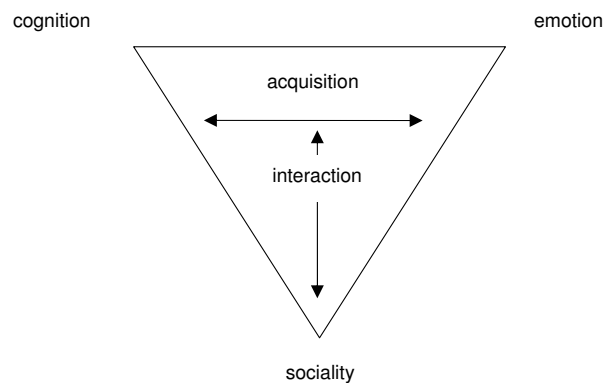


Figure 2.1: Three dimensions of learning (adopted from Illeris, 2002; 2003)

## 2.4 Internal acquisition process

### 2.4.1 Types of learning processes

How is psychological change, as in Illeris’ definition, realised? To answer this question, we need to further investigate his elaboration of the integrated processes that represent learning within the cognitive, social and emotional dimensions. Impulses for learning result from the social interaction between individuals and their environment (Illeris & Associates, 2004). These impulses are internally processed and acquired or developed further. This internal acquisition is located in the emotional and cognitive dimensions. The cognitive dimension concerns the content and epistemological component of learning (Illeris & Associates, 2004). Content is about *what* is learnt in terms of a competency. These competencies are actively constructed through what Illeris calls cumulative, assimilative, accommodative or transformative processes. Which of these types of processes occurs is partly determined by the way in which new impulses ‘fit’ prior knowledge. Prior knowledge is the competence stemming from previous experience of a particular task or subject. Psychological energy is also required for learning. This energy is derived from the learner’s motivation and feelings towards learning, and therefore concerns the emotional dimension. Motivation refers to the reason why someone is learning. Underlying factors may be interest in the subject or task and perceived enjoyment.

Cumulative processes take place when new impulses do not relate to any prior knowledge schemes. For example, learning the random numbers of a reservation number by heart refers to a cumulative process. Assimilation is about elaborating new impressions and integrating them into previously established structures. For example, the gradual, step-by-step development of a skill is mainly assimilation. When new impulses do not fit previously developed structures of knowledge and skills, reconstruction is required. Instead of fitting new impulses into previously developed structures, the latter need to be wholly or partly restructured to fit the impulses. This process requires more psychological energy than cumulative processes or assimilation, and is called accommodation. Reflection and critical reflection may be more demanding and more extensive forms of learning. When several previously developed schemes need to be decomposed and restructured “into a new coherent understanding and experience of the learner himself in relation to one or more significant areas in life, a new understanding or a fundamental tenet”, this is called transformation (Illeris & Associates, 2004, p. 55). An example of the need for transformation is when it is suggested to a skilful car mechanic that he retrain as a teacher, after having been dismissed because of his employer’s financial problems. This person needs to transform his entire work identity.

In defining types of learning processes in this way, different forms of learning are connected with different transfer possibilities (see Chapter 1, subsection 1.4.1) (Illeris & Associates, 2004). Cumulative learning is tied to the learning situation, whereas accommodative learning can be recalled in a broad spectrum of contexts in which it is possible to relate to the required understanding. This means that there is room for both the identical elements notion of transfer (assimilative learning) and the general principles theory (accommodation) (Illeris & Associates, 2004). This therefore supports the idea that transfer is inherent in the learning process.

#### 2.4.2 Types of non-learning

People may have an aversion to learning, for example as a result of negative school experiences or concerning difficulties with particular tasks or subjects. These negative emotions may hinder learning. In general, humans learn within the framework of life fulfilment. Creating meaning, maintaining equilibrium and overcoming distortions or obstacles is what drives them. On the other hand, limitation of life fulfilment may also be experienced, such as obstacles imposed by others. This may result in a reaction shown as anger, frustration or aggression. According to Illeris (2002), all learning requires psychological energy that can be caused by either the desire for life fulfilment or the desire for resistance. A combination of both may also be the cause. Both potentials can ultimately be traced back to the struggle for survival innate in humans.

When the intended learning does not occur, the question is whether nothing at all happens (Illeris, 2004). Several basic categories of so-called ‘non-learning’ can be

identified. In the case of a misunderstanding or lack of concentration, simple mislearning may take place: the learner does not really grasp what should be learnt. New impressions may be linked to the wrong preliminary structures. When discovered in time, this may easily be corrected. On the other hand, people may build further on these mistakes, requiring more psychologically demanding accommodation later on to put right the ideas learnt. In situations where it is more difficult to determine what is right and what is wrong, for example in the case of interpreting art or novels, it would be better to speak of 'different learning' rather than 'mislearning'.

Resistance is activated when the person perceives himself to be in conflict with the situation or context, such as an unwanted lesson subject, or an unpleasant teacher. As a consequence, the originally intended learning rarely occurs. When the resistance is brought into the open and the learner is confronted with it, resistance may lead to constructive accommodation. This, however, is likely to require outside help, in the form of teachers or colleagues at work. However, when people clearly want something else, but do not feel capable of rising to the challenge, they may, for example, drop out of the education course (Illeris, 2004). Frustrated resistance will typically lead to defence and blocking, which may hinder further learning (Illeris, 2002, p. 103). People may, for example, learn that they "hate the subject of physics", or that "this teacher just never understands" them.

Consequently, when situations are perceived as threatening, restrictive or altogether unacceptable, psychological defence may be developed. For example, to prevent conflicts from becoming too challenging, repression (Illeris, 2002, referring to Freud) is effected, to push the conflict back into the unconscious<sup>2</sup>. Impulses could also be ignored, which is termed rejection. In the case of repetitive rejection, blocking occurs: an automatic and strong rejection. In the case of distortion (which is more common than blocking), the impulse is deformed into something acceptable. When distorted assimilations are not corrected, accommodation is required to bring the cognitive structures in line with reality. However, in the case of further rejections and distortions, distorted assimilations may be established as prejudice.

According to Illeris (2004, p. 114), in modern society a type of general defence mechanism has developed, which we all share and which is directed precisely at our learning. Psychologically, it is impossible to absorb the overwhelming volume of information and impacts to which we are constantly exposed. To defend ourselves against the number and - often unpleasant - nature of these impacts, a larger, coherent defence system called 'everyday consciousness' (termed as such by Leithäuser, referred to in Illeris, 2004), is developed. Everyday consciousness entails systematic and massive rejection and distortion. This means that new impulses are picked up within a specific thematic sphere (the so-called 'theme-horizon-schemes') and are either rejected

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<sup>2</sup> <http://www.iep.utm.edu/f/freud.htm> Retrieved May 29<sup>th</sup>, 2006.

or systematically distorted. Alternatively, a new influence could also be admitted, thus allowing the current scheme to be accommodatively altered in agreement with the new influence. This requires special mental effort. Everyday consciousness functions as a necessary defence and as a kind of broad and general form of prejudice. Prejudice involves a mistaken understanding about a specific subject, which would cost a great deal for the person to give up. Impulses that contradict the prejudice are therefore distorted. A high degree of safety, tolerance and drive is necessary to be able to deal with the defence. Identity defence is also a type of defence that has been more generally developed in modern society. This relates to experiencing oneself as a unique individual and understanding how one is perceived by others (Illeris, 2004). In so far as identity is stable and fixed, it is embedded in adults' vocation and education, in family relations and possibly in political and religious beliefs. When adults are put in the context of change, retraining or personal development, they may be subject to identity defence, because they have developed mental barriers that can deflect influences that may threaten their established identity.

While humans normally coordinate cognitive schemes by assimilating new impulses to give them meaning, accommodation occurs when resistance or obstacles that disturb the current equilibrium are experienced. Accommodation is thus a kind of 'balancing' process in the case where assimilation meets with disturbances. This is why Illeris (2002, p. 44) concludes that "a profitable development process involves an interaction between assimilative and accommodative (and perhaps also cumulative) processes, balanced in relation to the context".

### 2.4.3 Elaboration of internal acquisition processes

We have elaborated on Illeris' explanation of the processes in the cognitive and emotional dimensions further, to provide a more concrete understanding of how these processes can be inferred from situations in practice. This elaboration is presented in Table 2.2. Please note that, in reality, more variations of internal psychological processes may occur. Table 2.2 therefore serves as a basic framework rather than as an exhaustive account.

Table 2.2: *Elaboration of the types of internal acquisition processes*<sup>3</sup>

Nature	Cognitive structures	Psychological energy	Result and transfer possibilities	Situation and example
Cumulative (automation: mechanical learning)	Situations in which the learner does not possess any developed scheme to which specific impressions from the environment can be related: the first element of a new scheme may be established.	Requires relatively low energy input.	Is likely only to be recalled and applied in situations mentally similar to the learning context.	To learn something that is not connected with anything of which one has any previous knowledge, such as learning the random numbers of a PIN-code by heart.
Assimilative	New impressions are elaborated and integrated into previously established structures. The new element is linked as an addition to a scheme or pattern that was already present.	The relation of the learner to the situation (e.g. teacher, school, peers, mentor) determines whether an uncritical assimilation occurs. This requires a moderately low energy input.	The new impressions are linked to the scheme or pattern in question in such a way that it is relatively easy to recall and apply when one is mentally oriented towards the field in question - for example, a school subject - while it may be hard to access in other contexts.	School learning that is built up by means of constant additions to what has already been learnt. Also in work contexts assimilation can take place, in a situation where capacities are gradually developed.
Accommodative	New impressions are difficult to fit into any existing schemes or patterns because they are not really understood or are difficult to relate to. The learner therefore needs to break down all or parts of an existing scheme and transform it so that the new situation can be integrated.  Established structures are reconstructed through dissociation, liberation and reorganisation.	Accommodation is a hard and energy-demanding process. A new understanding is required.	The result can be recalled and applied in many different, relevant contexts; it has really internalised.	Occurs in new situations and possibly while meeting and/or working with other people; for instance when an s-b pathway student enters the workplace for the first WPL period. Theoretically acquired knowledge may not be wrong but may well be inappropriate for certain WPL contexts. The learner needs to perceive the situation as safe and permissive to develop the new understanding. This may also be a short and sudden process: "aha, that's how it works!"

<sup>3</sup> The author would like to thank Professor Illeris for commenting on this further elaboration of the internal acquisition processes (e-mail communication, 2004 and 2006).

Table 2.2: *Elaboration of the types of internal acquisition processes (Continued)*

Nature	Cognitive structures	Psychological energy	Result and transfer possibilities	Situation and example
<i>Reflective (afterthought)</i>	Accommodative learning that does not occur immediately in connection with the trigger impulses, but after a time lag, implying a further elaboration of the impulses.	Reflection may require even more psychological energy than normal accommodation.	An even stronger result than with normal accommodation can be expected.	"Something remains unfinished (...) and when a suitable situation appears, the afterthought makes itself felt" (Illeris, 2002, p. 46). Can occur in interaction with teacher/mentor and peers who question the learner and ask for justification of actions or takes place as an individual afterthought. Also occurs when what has been learnt is to be used in a later context or an examination or justification of acquired comprehension (Illeris, 2002, referring to Mezirow, 1990; 1991).
<i>Critically reflective</i>	The validity of the presuppositions for previously acquired understandings is assessed.	May require even more psychological energy than normal accommodation.	This type of learning can result in transformed meaning perspectives, for instance towards the question "What does it mean to be a good employee?" (Van Woerkom, 2003; referring also to Mezirow, 1990).	Critically reflective work behaviour, for example, is defined as "a set of connected activities carried out individually or in interaction with others, aimed at optimising individual or collective practices, or critically analysing and trying to change organisational or individual values" (Van Woerkom, 2003, p.64). It can take place individually or collectively but in the latter case requires an open, stimulating context.
Transformative	The premises of a problem or situation are transcended. This type of learning implies real personality changes; a complex accommodation involving simultaneous restructuring in the cognitive and emotional dimensions. This is a rare form of learning.	This is a very demanding process that requires strong motivation.	The result is profound and extensive. The learner's self has changed and qualitatively new understandings and patterns of action have been acquired in relation to identity, self-image, values and opinions.	Typically the result of a crisis-like situation caused by urgent and unavoidable challenges. The learner needs to change in order to advance. The result is physically noticeable by relief/relaxation. For example, emancipating groups (illiterates, women) re-evaluate their identity and self-image by transformative learning.



Table 2.2: *Elaboration of the types of internal acquisition processes (Continued)*

Nature	Cognitive structures	Psychological energy	Result and transfer possibilities	Situation and example
Non-learning a. Mislearning	Either a faulty accumulation takes place or new impressions are linked to the wrong preliminary structures (mistaken assimilation).	Possibly caused by lack of concentration, energy or motivation.	When detected on time, relatively easy to correct. However, when further assimilations are made on a mistaken basis, more extensive contradictory structures may result leading to further misunderstanding.	Because of a misunderstanding or lack of concentration the learner does not really grasp the subject. In clear 'right' or 'wrong' situations: mislearning; otherwise: different learning.
b. Resistance  - Defensive resistance: the learner resigns himself to the situation, eventually (unconsciously) developing a kind of psychological defence against the situation or subject.  - Offensive resistance: the learner tries to fight the unacceptable situation.	Barriers are set up against possible learning which is (subjectively) unbearable or unacceptable.	Learning is blocked and the learner either consciously or unconsciously chooses to protest or to withdraw.  Refusal: possibly anger or frustration.	The originally intended learning rarely occurs. Frustrated resistance will typically lead to defence and blocking, which can hinder further learning. When the resistance is openly expressed, however, and the learner is confronted with it, constructive accommodation may be the consequence. This, however, is likely to require outside help in the form of teachers or colleagues at work.	Resistance is activated when the person perceives himself to be in conflict with the situation or context, such as an unwanted lesson subject or an unpleasant teacher. When people clearly want something else but are not capable of rising to the challenge, they may for example show indifference, or a disturbing attitude; or they may drop out of the education course.
c. Defence  - Classical personal defence. - Everyday consciousness as a coherent defence system: protection to overpower of stimuli and influences. - Identity defence.	Defence is developed in the person to protect against specific kinds of influences.  Possibilities: - Complete rejection: any kind of acquisition is avoided. Repetitive rejection: blocking. - Mental distortion: any impulses that contradict present beliefs/perceptions are distorted to something acceptable. - Take in: mode of perception is changed in an accommodative or transformative way.	Negative emotion: no will to learn or not able to learn.	Defence leads to no result or to 'the wrong' result: negative or restrictive in relation to learning. The initial rejection can further lead to blocking or even phobia, involving a strong anxiety reaction. Distorted assimilations may result in prejudice. Only in the case of taking in and accommodation, can the result be positive.	When situations are perceived as threatening, restrictive or altogether unacceptable, psychological defence may be developed. For example, in the case of repression, the conflict is pushed back into the unconscious. Because it is impossible to absorb the overwhelming amount of information and impacts, 'everyday consciousness' serves as a coherent defence system. Identity defence serves to protect the established identity against for example retraining.

## 2.5 Social interaction process

For the social interaction from which impulses for learning result, Illeris (2002) identifies six main categories of processes, as displayed in Table 2.3. This may concern direct social interaction with colleagues at the workplace or teachers at school, peers and other people from whom students may learn. Indirect social interaction through media (such as books) may also be concerned (Illeris & Associates, 2004). We have

attempted to subdivide Illeris' description of the interaction processes more concretely into 'interaction activity'; 'role of others'; and 'learner's initiative and activity degree'. This should improve description and analysis opportunities in the empirical study. The type of interaction activity related to each of the processes labelled in column one is explained in the second column of Table 2.3. In the third column the role of others in the interaction is described. The learner's initiative and activity degree generally increase with each successive category, as indicated in the fourth column. The social interaction processes do not occur completely separately in practice, however: they partially overlap (Illeris, 2002).

Table 2.3: *Social interaction processes (adapted from Illeris, 2002)*

Social interaction process	Interaction activity	Role of others	Learner's initiative and activity degree
Perception	Possible registration through observation and interpretation	Presence of colleague(s) or teacher(s) who is/are talking or working in learner's proximity	-/+
Transmission	Listening, making notes, or otherwise processing information	A colleague, model or teacher who is passing on information; books or other media from which the learner may take in information	+
Experience	Trying out performance under supervision of an instructor, colleague or teacher	Colleague(s), model(s) or teacher(s) supervise(s) and help(s) the learner; feedback ranges from instruction to explanation and correction	++
Imitation	Copying behaviour of a model, instructor, teacher or colleague	Model, instructor, teacher or colleague shows how to perform a task	++
Activity	The learner is working independently, possibly under loose supervision	Other(s) may be called upon to help or provide feedback	+++
Participation	Working autonomously	Co-operation with colleague(s)	++++

## 2.6 Towards a research model

### 2.6.1 The framework for describing WPL

Internal acquisition can be described as cumulative, assimilative, accommodative or transformative learning, or different types of non-learning. Social interaction processes range from perception to participation. We have elaborated on both of these kinds of processes, to make them more concrete for describing WPL. Internal acquisition and social interaction processes take place within a framework of learner characteristics and learning environment that may both affect learning and explain differences in learning processes among learners and contexts. We therefore need to take this broader context into account as well. We also aim to describe how particular outcomes are realised by particular processes. To describe learning as a process-in-context with a start and an outcome, we have integrated Illeris' internal acquisition - social interaction triangle into the input-process-output model, as presented in Figure 2.2.

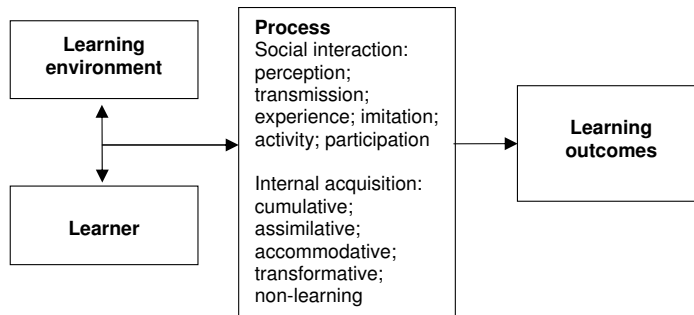


Figure 2.2: Input-process-output model of WPL

In this model, learning outcomes result from the social interaction between the learning environment and the learner and the subsequent internal acquisition. On the one hand, the learner role, the learning environment role and the learning outcomes need to be clarified in terms of categories of description, while, on the other hand, we do not aim to make prior assumptions about how these elements are all related. We therefore start with basic categories only and keep an open mind towards other possible influences. The context of work is included in the social interaction process and in taking account of the learning environment.

### 2.6.2 Learner background

What people learn at work depends on their previous experiences (Illeris & Associates, 2004). In addition to prior knowledge specifically regarding the task students are learning about, their background serves as a broader framework for learning. Identifying this framework may help to understand differences among learners and may also provide an extended basis for understanding why a particular learning process has taken place in a particular way. We therefore aim to take background characteristics such as previous education, age and gender into account. We aim to find out during data collection what other categories may be relevant.

### 2.6.3 Learning environment

Concerning the workplace environment, Nijman (2004, p. 18) argues that “the range of factors from the general work environment affecting training effectiveness could be endless”; (...) “most of these have barely been studied, however”. Again, we cannot be certain what list of factors would be important in this specific context. Jørgenson and Warring (referred to in Illeris & Associates, 2004, p. 30) define learning environment as the opportunities for learning contained in the material and social surroundings. In addition to the employees’ learning potentials, they identify the social learning environment and the technical-organisational learning environment. Illeris and Associates (2004) distinguish communities of work, political communities and cultural communities in the social learning environment. However, these communities typically

overlap, or are strongly interwoven. The use of their identification of a social learning environment for this study appears to be merely that traditions, norms and values in the communities at the workplace are relevant to learning. In the technical-organisational learning environment, the content and organisation of the work, as well as the technology that is used, influence learning (Illeris & Associates, 2004). Firstly, division of work and work content seem to be relevant factors. The vertical division of work relates to the hierarchical relationships in the labour organisation; horizontal division refers to the extent to which the individual stages in the chain of production are integrated. Illeris and Associates (2004) assume that when planning, execution and evaluation are split up to a large extent, the possibilities for learning are reduced.

Strain and stress concerns the balance between challenges and high demands versus low variety and low pace of work (Illeris & Associates, 2004, referring to Jørgenson & Warring). This factor also appears to be decisive for how learning processes may occur, because low pace and low demands may free more time for learning, high pace and variety may, however, provide more opportunity to learn. The 'possibilities for social interaction' that Jørgenson and Warring mention are included in the process description that we use. They further distinguish 'possibilities for making decisions' and 'possibilities for using qualifications'. However, these categories are difficult to distinguish from the categories of work content, division of work and social interaction processes. For example, by describing the social interactions occurring, the type of tasks (work content) and whether students perform or are allowed to perform planning and evaluation as well as the execution of tasks (division of work), we also describe the scope students have for making decisions and what skills can be used. We conclude that at least the following learning environment factors at the training company should be taken into account:

- social learning environment: the norms, traditions and values of the communities in which learners participate
- division of work:
  - vertical relationships
  - horizontal: how planning, execution and evaluation are split up
- work content (including required material and technology)
- strain and stress: the challenges, demands, variety and pace of work

In addition to the workplace, school is part of the learning environment. In the first chapter we have argued why it is important to describe the integration between school and workplace. Integration measures are for example assignments and workbooks. First of all, WPL mentors are assigned to guide the student at work and provide feedback. In addition, WPL teachers provide guidance from the school's perspective. Guidance is partly 'covered' by describing the social interaction processes. However, the number of meetings a student has with his mentor, and the way in which the student is corrected, also reflect a part of the guidance, which is not included in the social interaction definitions. We do not specify guidance and feedback models beforehand; we do,

however, keep in mind that some aspects of guidance may be better reflected as additional to the social interaction categories as identified in the process description. By studying the cases we aim to find out what range of integration measures are used in total. We know beforehand that the following are employed:

- WPL mentor and WPL teacher guidance and feedback
- assignments
- workbook
- progress evaluations between WPL mentor and student
- mid-term and final evaluations

#### 2.6.4 Social interaction and internal acquisition variables

Regarding the internal acquisition process, we have identified prior knowledge as a main variable on the cognitive side. This is defined as the competence that stems from previous experience. In the emotional dimension, motivation and feelings towards learning play an important role. Motivation is reflected through, for example the interest, enthusiasm and enjoyment shown regarding the subject or task. However, negative emotions such as frustration or anger, fear or the expressed difficulty of the task are also relevant. We do not know beforehand exactly which feelings have an influence on the learning process. We therefore aim to take any expressions of feelings towards learning into account. We do not strictly define beforehand the students' prior knowledge and motivation. We aim to find out as much as possible about prior knowledge, motivation and other background characteristics by examining the learning processes as they naturally occur.

Although students may express general motivation or feelings towards learning or their job, the type of internal acquisition regarding a particular learning process is derived from the specific prior knowledge and motivation concerning this process. For example, a student may generally want to finish his course and be very motivated to do so. However, the same student may not like domestic tasks at all. The motivation to learn how to clean up may therefore be rather low. This example shows why prior knowledge and motivation and feelings should be located in the learning process box of the research model, instead of in the learner background box.

Situational information regarding how gradually a process appears to take place and the apparent result and transfer possibilities of learning also need to be taken into account to determine the type of learning process (see Table 2.2). For the cognitive and emotional dimensions we focus on the following variables:

- prior knowledge
- motivation and emotions
- result and transfer possibilities: extent to which outcome was realised
- situational information (whether automation takes place, sudden understanding, gradual addition)

Interaction activity, role of others and learner's initiative and activity degree determine

the social interaction process of learning. For the social dimension, we focus on these variables, therefore:

- interaction activity
- role of others
- learner's initiative and activity degree

### 2.6.5 Learning outcomes

The outcomes of WPL are supposed to relate to the attainment targets as defined for the course of study concerned. However, as a consequence of participating in real work processes, other outcomes may be found in addition. We therefore aim also to be alert to outcomes other than the attainment targets.

### 2.6.6 Research model

In Figure 2.3 we visualise the extended model of Figure 2.2 that serves as a starting point for data collection. In the next chapter we explain why and how we aim to follow a case study approach, using this model as a starting point, for describing WPL in the context of SVE.

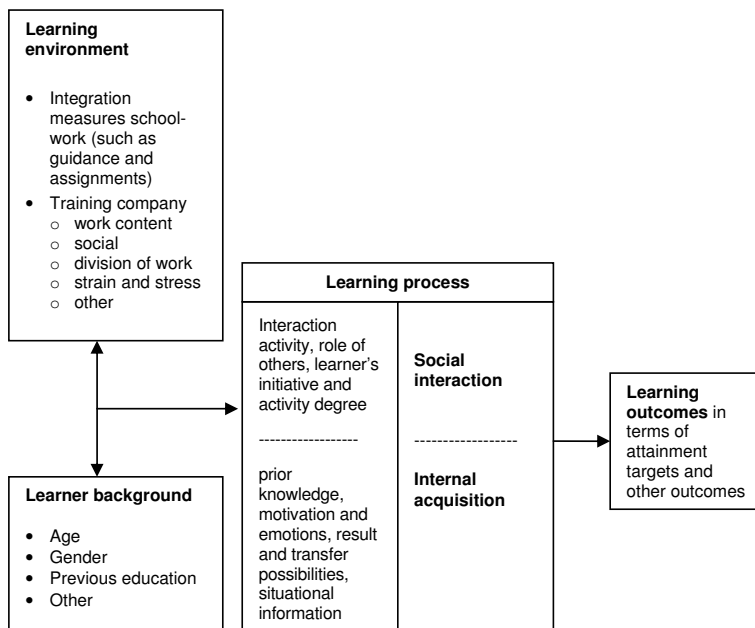


Figure 2.3: Research model for describing WPL

## **Chapter 3**

### **Case study design**

#### ***3.1 Introduction***

In this Chapter the design of the study is presented. In section 3.2 we first explain why a qualitative, descriptive approach is used to answer the research questions (3.2.1). More specifically, the case study methodology is applied as explained in 3.2.2. In 3.2.3 we describe how we aim to reconstruct learning processes. Sources of evidence for case studies (3.3.1) and planned data collection (3.3.2) are then discussed. Quality considerations as applied in this study are discussed in 3.3.3. We show how we aim to apply triangulation by sources and methods in 3.3.4. Design and use of the instruments is presented in 3.4. In section 3.5 we provide some conclusive remarks about the design of this study.

#### ***3.2 Methodology and approach***

##### **3.2.1 Qualitative description**

We wish to find out what is important regarding WPL learning processes and to develop an understanding of how it works. Qualitative procedures are the most useful for describing a phenomenon in its context, when a holistic view is pursued and the focus of the study is on a process (Krathwohl, 1998). We therefore apply a qualitative, descriptive research approach. Description means verbally portraying a situation, person, culture or behaviour to highlight the important characteristics, to put them in context and to show the interrelations between them (Krathwohl, 1998).

In a purely qualitative approach the study often starts without much structure and is arranged as it proceeds. On the one hand, we want to keep an open mind to categories not yet covered by the research model; we do not hypothesise relations beforehand. In addition, we wish to intervene in the WPL process as little as possible. We therefore aim to connect as much as possible to what is normally happening in WPL already to discuss and assess learning. We choose to maintain such an explorative approach because, firstly, the learning theory as based on Illeris (2002) has not so far been applied to actually describe WPL, and, secondly, because there has hardly been any empirical validation of workplace learning theories and the factors related to the learner and the learning environment, that is unequivocal (Nijman, 2004; Van Woerkom, 2003). On the other hand, data collection should be neither entirely unstructured nor spontaneous. The variables of the research model (Figure 2.3) are used as a basis for guiding the data collection. In addition, we aim to systematise the data collection procedure, to enhance

the comparability of the results and to remain sufficiently focused on the research questions.

### 3.2.2 Case study methodology

The aim of this study is to examine how learning processes occur, in the current, real work context. This means that behavioural events cannot be controlled. These conditions meet the criteria as identified by Yin (1984) to make use of the case study methodology. Case study can be defined as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (Yin, 1984, p. 23). Although initially a case study produces information about the particular case, we aim to investigate the WPL learning process as a phenomenon. According to Stake (2000), particular cases can be examined to provide insight into an issue and a number of cases can be jointly studied to investigate a phenomenon. This requires the identification and description of general patterns that lie beyond the single case. Accordingly, we make use of multiple, qualitative case studies to facilitate understanding of the more general issue of the WPL process. We view a specified WPL period of one student, in a particular training company, as a case.

In case study research the emphasis is on extensively researching a phenomenon in its natural context rather than aiming for larger numbers of context-stripped cases and statistical significance (Miles & Huberman, 1994). Small samples of respondents are therefore usually involved and sampling is purposive. The results of the case study are not generalised statistically: cases are not 'sampling units', consequently, the empirical results can only be generalised analytically.

To follow Yin's 'replication logic', cases must be selected either to produce similar results, or to produce contrary results for predictable reasons. For literal replication (Yin, 2003), students participating in the same sector, the same type of subsector (for example a subsector of Care is nursing home care), the same year and the same pathway could be selected. Conversely, for theoretical replication differences could be explained by differences in the learning environment such as the type of nursing home and difference in pathway. Consequently, although the aim is to have small numbers of respondents, we need to select several cases from the same context as well as several cases from another context. We need to realise variation in pathways, training companies and sectors. Aiming for two different sectors, we want to select three students from each pathway per sector. This means that in total, 12 cases are selected.

### 3.2.3 Reconstruction of learning processes

Learning is distinguished as a process resulting in a change in behaviour- or the capacity for such a change - that is relatively lasting. We cannot actually see such a capacity for change - the internal acquisition process - develop in the learner's head. We can only conclude that learning must have taken place when the learner displays or reports



changed behaviour after a period of practice or experience. This reported or observed changed behaviour is, therefore, a starting point for reconstructing the learning process. First, we need to know what learning outcomes have been realised as a result of the WPL period under study. Then we want to reconstruct how these outcomes were realised. We hope to provide a complete description by combining a strategy in which we are present when learning is taking place, or when it is discussed shortly after having taken place, with a strategy of reconstructing the processes as far as possible at the end of the WPL period under study. In the following sections we explain how we intend to apply these strategies, using the case study approach.

### **3.3 Data collection and methods**

#### **3.3.1 Sources of evidence**

Multiple sources of evidence are used in case studies (Yin, 1984). The main sources are interviews, direct observation and documentation (Yin, 2003). Semi-structured interviews focusing on actual tasks, required competencies and both daily and notable learning experiences are often used as learning process recording instruments (Berings & Doornbos, 2003). Such semi-structured interviews are, therefore, used as one of the main data collection instruments in this study. As Silverman (2000) comments, however, interviews result in answers to the question how people 'see things'; rather than how they 'do things'. Observation is, therefore, a crucial supplement to interviewing. It can facilitate the interpretation of data collected through interviewing (Berings et al., in press) and provide concrete examples of how work tasks are carried out and in what context. Non-participant observation is consequently applied as a main data collection instrument as well. We also intend to study written material relevant to WPL.

#### **3.3.2 Planned data collection**

We need to connect data collection to the occasions during which the learning process is already discussed, because we have the intention to intervene in WPL as little as possible. For example, there are progress evaluations in the training company and mid-term and final evaluations during which the WPL-teacher visits the training company to discuss the student's learning process. These situations would be suited to observe. We also know that students use guidelines from workbooks and assignment books during WPL. Workbooks and assignments therefore serve as informative documents. However, we also want to gather information about learning when it is less explicitly focussed on, as is the case during a normal working day at the training company. We therefore plan to observe students for part of the working day. This also serves to gather more information about the learning environment. In total, we plan to observe a progress evaluation, a mid-term evaluation, a final evaluation, and the student at work; we also propose to interview each student, his mentor and his WPL teacher at the end of the period of study to reconstruct the learning process and ask further questions referring to the observations. In addition, we aim to study relevant documents such as the workbook

and the assignment book. These documents also serve as sources for describing the curriculum as specified for WPL. To realise a complete WPL curriculum description, teachers and students are also questioned about the curriculum. Planned data collection per case is presented in Table 3.1.

Table 3.1: *Planned data collection per case*

Source	Method
Progress evaluation	Non-participant observation
Mid-term evaluation; final evaluation	Non-participant observation Document analysis of completed evaluation forms
Students (and colleagues) at work in the training company	Non-participant observation
Student	Semi-structured interview
Mentor	Semi-structured interview
Teacher	Semi-structured interview
Workbook	Document analysis
Assignment book and assignment completion	Document analysis

### 3.3.3 Quality considerations

Swanborn (1996) mentions striving for intersubjective agreement, valid argumentation, efficiency, and maximally informative knowledge as regulative ideas for science. Although procedures for meeting the criteria of quality control may differ between quantitative and qualitative research, they can be derived from this common base of regulative ideas (Swanborn, 1996). Valid argumentation refers to the logical quality of the connections between propositions. A careful description of how the data lead to the results and conclusions contributes to valid argumentation. Efficiency is about the ratio between the costs and the expected benefits of the study; an aspect that is dealt with in the discussion. Controllability, reliability and validity are subcriteria of intersubjective agreement. Controllability refers to the public availability of the products of the study, the preciseness of the language in the report and its falsifiability. Reliability refers to the consistency of results over time, independent of researcher and instruments. To support intersubjective agreement, we aim for a systematised approach to data collection. In addition, we aim to document the research steps and interpretation steps as completely as possible ('thick description'), which also relates to the regulative idea of maximally informative knowledge. Member checks are planned as part of the data collection too.

The researcher has the role of 'non-participating observant'. This means that respondents know that they are being observed. This is necessary because the students and their WPL-mentors are also interviewed about the learning process by the same researcher. Non-participant observation also best allows concentration on the observation process. To avoid possible adaptations of behaviour and answers, the following procedure is applied. First, it should be explained to the respondents that the purpose of the study is to record the usual situation and that it is not meant as a direct assessment of behaviour and procedures. This also implies that the researcher avoids as

much as possible influencing the timing and content of WPL meetings (such as the mid-term evaluation) that are part of the data collection contact. For example, although present, the researcher does not ask questions during the mid-term evaluation meetings, because the mid-term evaluation discussion should take place between the student, the teacher, and the mentor. Secondly, it should be explained to respondents that they remain anonymous. In addition, prolonged contact is aimed at to gain respondents' trust so that they behave naturally during further observations. For example, the workday observation takes place at least a few weeks after the study has started, when respondents have had the chance to become more familiar with the researcher.

There are obviously some measures that cannot be avoided during research, however. These measures concern note-taking during observations and the tape-recording of interviews. In addition, although the intention is for the researcher to be inconspicuous during the observations, the workday observations take place in environments where the student probably moves around in different spaces, possibly helping clients and asking colleagues for help, and the like. This means that it may be necessary to follow the student around at the workplace, which may be disturbing for both the student and any clients or colleagues. It needs to be explained in advance to the respondents, their colleagues and any others present why these measures are required and how their products will be used. We also plan to make notes about the researcher's role in each case study, to be able to comment on the question of the impact of the study on the results.

Validity is the 'ultimate' criterion, according to Swanborn (1996). This is about describing and explaining the empirical world in a correct way. We apply triangulation to enhance the validity of the data (Krathwohl, 1998). Following Meijer, Verloop and Beijaard (2002), we apply the procedural approach of triangulation rather than an intuitive or an intersubjective approach. This means that we describe each step in the triangulation procedure to make it more transparent and replicable. Miles and Huberman (1994) argue that triangulation is supposed to support a finding by showing that independent measures of this finding agree, or at least do not contradict each other. Denzin & Lincoln (1978; referred to in Krathwohl, 1998) distinguish the following types:

- data triangulation is about using multiple sources of data across time, space and persons
- method triangulation refers to using multiple methods such as interviews, questionnaires and observations
- investigator triangulation concerns employing multiple investigators for the study

Data triangulation (Krathwohl, 1998) and method triangulation (Stake, 2000) are the types most commonly performed. In this study, method triangulation is applied by employing interviews, observations and document analysis. The criterion for data source triangulation is met, by interviewing mentors and teachers besides the students, and we aim to observe at different times within the period of study (Stake, 2000). Investigator triangulation is not completely applied because the study is carried out by

one researcher; however, the data collection procedure and some parts of the analysis, such as coding, are discussed with external researchers.

Triangulation stands for the procedure of carrying out three measurements to determine the exact position of a point in the landscape. The idea is that different sources and methods show converging conclusions. However, in practice qualitative studies in the social sciences often involve picking triangulation sources that have different strengths and foci, so that they can complement each other (Meijer et al., 2002). Although each of the data collection contacts could serve to gather information about any of the research model boxes, specific parts of the model are emphasised in different contacts. In the next section we explain which sources and methods are planned to gather data about which variables.

### 3.3.4 Methods and variables

Learning is inferred from behaviour using the criteria of changed behaviour, durability and experience or practice. By observation, interviews with student, teacher, and mentor and document analysis, we want to gain a complete picture of the learning processes, the learner and the learning environment. In Table 3.2 we show how triangulation is realised in this study, by presenting the source(s) of data and approach per learning process element and related variables (see Figure 2.3).

Table 3.2: *Source(s) of data and approach per variable*

Variable	Source(s) of data and approach
<b>Learner</b> <ul style="list-style-type: none"> <li>• Age: date of study minus date of birth.</li> <li>• Gender: male/female.</li> <li>• Previous education: level and subject.</li> </ul>	<i>Student interview</i> Ask student about background.
<b>Learning environment</b> <ul style="list-style-type: none"> <li>• Integration between school and work: measures intended to direct learning, such as guidance, assignments and workbooks.</li> </ul>	<i>Observations</i> How student receives guidance and feedback; what measures are used.
	<i>Student interview</i> Ask student how guidance takes place and what measures are used.
	<i>Mentor interview</i> Ask mentor how guidance takes place and what measures are used.
	<i>Teacher interview</i> Ask teacher and any other representative(s) of the school what measures should be used in what way and how guidance takes place; and about the broader context of the curriculum.
	<i>Document analysis</i> Examine what material the school has developed to direct WPL.

Table 3.2: Source(s) of data and approach per variable (Continued)

<ul style="list-style-type: none"> <li>• Training company</li> <li>• Learning environment in social respect: norms, traditions and values.</li> </ul>	<p><i>Observations</i> What norms, values and traditions do the student, his model and colleagues appear to reflect?</p> <p><i>Student interview</i> Ask student about norms, values and traditions of the workplace.</p> <p><i>Mentor interview</i> Ask mentor about norms, values and traditions of the workplace.</p> <p><i>Teacher interview</i> Ask teacher about norms, values and traditions of the workplace.</p> <p><i>Document analysis</i> Examine brochures and internet for vision, mission, norms, etc.</p>
<ul style="list-style-type: none"> <li>• Division of work and work content               <ul style="list-style-type: none"> <li>- Vertical: hierarchical relationships.</li> <li>- Horizontal: division of planning, execution and evaluation of work.</li> <li>- Content: what types and nature of tasks?</li> </ul> </li> </ul>	<p><i>Observations</i> What roles are fulfilled in what way? What kind of hierarchy appears? How is the work divided among colleagues and students? What types and nature of tasks are carried out?</p> <p><i>Student interview</i> Ask student what roles and tasks are fulfilled by whom, who supervises and how work is formally organised.</p> <p><i>Mentor interview</i> Ask mentor about content and nature of the job; ask mentor about vertical and horizontal division of labour.</p> <p><i>Teacher interview</i> Ask teacher about content and nature of the job.</p> <p><i>Document analysis</i> Ask training company for brochures and documents explaining type and nature of work, etc.</p>
<ul style="list-style-type: none"> <li>• Strain and stress</li> </ul>	<p><i>Observations</i> How busy are the student and his colleagues? What pace is reflected during the working day? How demanding or challenging is the job?</p> <p><i>Student interview</i> Ask student about pace and demands of work.</p> <p><i>Mentor interview</i> Ask mentor about pace and demands of work.</p> <p><i>Teacher interview</i> Ask teacher about pace and demands of work.</p>
<p><b>Learning process</b></p> <ul style="list-style-type: none"> <li>• Social interaction               <ul style="list-style-type: none"> <li>- Interaction activity: type of interaction in terms of observation, listening, writing, copying behaviour, trying out or working autonomously.</li> <li>- Role of others: what others do in relation to what the learner is doing.</li> <li>- Initiative and activity degree: the extent to which the student is actively taking initiative.</li> </ul> </li> </ul>	<p><i>Observations</i> Student interacting with mentor, model or other colleagues showing role of others, <b>interaction activity and initiative and activity degree.</b></p> <p><i>Student interview</i> Ask student what type of interaction activity, role of others (model, colleagues and mentor) and initiative and activity degree have led to particular learning outcomes.</p> <p><i>Mentor interview</i> Ask mentor how particular learning outcomes have been realised in terms of interaction activities, his role and the role of the model; ask about student's initiative and activity degree.</p> <p><i>Teacher interview</i> Ask teacher how particular learning outcomes have been realised in terms of interaction activities, his role; ask about student's initiative and activity degree.</p> <p><i>Document analysis: assignments</i> How have assignments concerning particular learning outcomes been completed in terms of social interaction?</p>

Table 3.2: *Source(s) of data and approach per variable (Continued)*

<ul style="list-style-type: none"> <li>Internal acquisition</li> <li>Prior knowledge: specific competence stemming from previous experience.</li> </ul>	<i>Observations</i> Observe difference between what student should do and is able to do, indicated by observed difficulties, student's verbal comments, model's verbal comments; colleagues' comments concerning specific prior knowledge.
	<i>Student interview</i> Ask student about what he knew or was able to do regarding specific tasks and competencies before WPL started.
	<i>Mentor interview</i> Ask mentor what student knew or was able to do regarding specific tasks and competencies before WPL started.
	<i>Teacher interview</i> Ask teacher what student knew or was able to do regarding specific tasks and competencies before WPL started.
<ul style="list-style-type: none"> <li>Motivation and emotions: motivation and feelings expressed through interest, enjoyment, experienced difficulty and the like concerning the specific task or subject.</li> </ul>	<i>Observations</i> What motivation and feelings are expressed regarding particular tasks?
	<i>Student interview</i> Ask student what extent of enjoyment, enthusiasm, interest or aversion is involved in particular tasks and learning outcomes.
	<i>Mentor interview</i> What extent of enjoyment, enthusiasm, interest or aversion is involved in particular tasks and learning outcomes with this student?
	<i>Teacher interview</i> What extent of enjoyment, enthusiasm, interest or aversion is involved in particular tasks and learning outcomes with this student?
<ul style="list-style-type: none"> <li>Result and transfer possibilities: extent to which learning outcome has been realised (combine with 'learning outcomes' to determine both which outcomes were realised and to what extent they were realised).</li> </ul>	<i>Document analysis and observation of mid-term and final evaluations.</i> What is written on the forms by mentor and model, and possibly teacher about the extent to which outcomes were realised?
	<i>Document analysis: assignments and grading</i> How are assignments graded by mentor and/or model?
	<i>Observations</i> How well does the student appear to perform the tasks? However, because the researcher is not an expert in care, this should be treated as additional information.
	<i>Student interview</i> How well does the student feel he has acquired and developed particular competencies?
	<i>Mentor interview</i> Ask for grading or additional information about grading.
	<i>Teacher interview</i> How well does the teacher think the student has acquired and developed particular competencies?
<ul style="list-style-type: none"> <li>Situational information: Any possible additional information that may for example indicate mechanical, step-by-step or sudden learning.</li> </ul>	<i>Observations and interviews</i> <i>Document analysis: assignments</i> May become visible through student, mentor and teacher's stories. Also dependent on relation between prior knowledge and further learning.
<b>Learning outcomes</b> Attainment targets or possible additional outcomes of learning (combine with 'result and transfer possibilities' to determine both which outcomes were realised and to what extent they were realised).	<i>Observations</i> Observe tasks that student is involved in or is allowed to perform.
	<i>Student interview</i> Ask student what he is able to do or knows now, that he could not do or knew before WPL.
	<i>Mentor interview</i> What is the student able to do and does he know as a result of WPL?
	<i>Teacher interview</i> What is the student able to do and does he know as a result of WPL?
	<i>Document analysis: evaluation forms and assignments</i> What assignments have been completed and what outcomes are shown to have been realised in the evaluations?

### 3.4 Instrumentation

#### 3.4.1 Observation sheet

People often find it difficult to talk about learning at work (Berings & Doornbos, 2003). Therefore, asking questions about overt behaviour, rather than only asking about learning directly, might help to reconstruct how learning processes take place. Observation is used to gather information about overt behaviour, which can serve as input for the interviews. In the case of 'ecological observation', a posteriori defined categories are used. Everything that happens during a visit is attempted to be recorded as completely and in as detailed a way as possible (Medley, 1982). This approach suits the purposes of this study because we do not know for sure what events, interactions, and people other than the student, are important to observe. On the other hand, we have already developed beforehand a set of categories about which we want to gather information (see Table 3.2). In a multiple-coding system a single event or interval of time is coded in more than one category system. For example, a single interaction between two individuals might be classified according to the type of social interaction, such as transmission or imitation, and according to the content of the task they are carrying out, such as 'cleaning up the shop'. Consequently, we combine the ecological observation approach with the multiple-coding approach, in the sense of recording everything that happens as much as possible, and coding this on multiple categories as developed beforehand or as 'other'.

The observation sheet as shown in Box 3.1 serves as a basis for the observations. The first row serves to link the observation to the respondent and the training company. The execution of a task (such as serving a meal to nursing home residents) or participation in an activity (lunch break) by the student, as displayed in the first cell of the second row, is used as the structuring object for the observation. In the second row a setting drawing (room/apartment/hallway, interior decoration) can be included, to support memory of the observation. This row also includes room for other comments or any other categories. In the third row, concretely observable elements related to the research model are indicated. In the final row, the research model elements in total are mentioned, to check whether observations also include information about these aspects. Some categories are clarified in italics between brackets.

Box 3.1: Observation sheet (translated from Dutch)

<i>This cell only on first page</i>		
Date: .....		
Page number: .....		
Student: .....		
Participants: ..... ( <i>who is present during observation situation</i> )		
Code for training company (and department): .....		
Other comments: .....		
<i>One sheet for each work task for the next cells.</i>		
Time: ..... - .....	<i>Room for other comments</i>	Setting drawing
Location: .....		
Activity/task ( <i>outcomes</i> ): .....		
.....		
.....		
.....		
.....		
⇒ What is the student doing? ⇒ Who is present? ⇒ Interaction ( <i>between</i> )/guidance (instruction, correction, ...)? ⇒ Non-verbal expressions ( <i>emotions/motivation</i> )? ⇒ Material ( <i>work content – integration measures</i> )? ⇒ Explicated goal for learning?		
Learning process elements: <ol style="list-style-type: none"> <li>1. Interaction (<i>with people and material</i>)</li> <li>2. Internal acquisition (prior knowledge, difficulties, motivation and feelings)</li> <li>3. Non-learning (mistakes, resistance, defence)</li> <li>4. Role of integration measures? (guidance, assignments, workbook)</li> <li>5. Training company: social atmosphere, content, strain and stress, etc.)</li> <li>6. Learning outcome (prescribed coincidental, intended result?)</li> </ol>		

Observation takes place continuously during the data collection contact concerned. For example, a mid-term evaluation that lasts an hour is continuously observed for an hour. According to Krathwohl (1998), around four hours of observation per day should be maintained as a maximum for the researcher. This means that a maximum of around one half workday can be observed at any one time. The duration of the workday observation further depends on what range of tasks and events are included within a time frame of a workday. A workday observation period should include the range of crucial tasks regarding the job the student is trained for, and at least one break, for example to be able to describe social relations and informal talk. Holidays or weekend shifts are excluded from selection, because the range of tasks may be very different from normal workdays during such shifts.

### 3.4.2 Interviews

#### *Student interview*

In the interviews we want to reconstruct learning processes using the outcomes of learning as a starting point, and to gather information about the learner background and



the learning environment. Directly answering questions about learning may be difficult for respondents who are mainly concerned with working. We therefore apply a strategy in which the job and the course are discussed more generally in the interview, before more specific questions concerning learning experiences are asked. Consequently students can gradually become more aware of their learning and how this takes place. This strategy can be translated into a concrete interview as follows. A preamble about the start and organisation of the course and the start of WPL is the first topic. We also ask the student about previous education, age, and the reason for entering the current course. Then the student is asked to tell something about the training company. Subsequently, this subject can be further elaborated by questions about the content and nature of the job, and how the work is organised and divided among colleagues. Learning outcomes and processes, and learning and school are discussed next. As a starting point for the reconstruction, learning outcomes are reviewed using questions such as: "What do you know/are you able to do better than when your WPL period started?". To reconstruct the underlying learning process, we could ask questions such as: "What steps did you follow to become able to do this?". To generate explanations and elaborations, the use of 'what', 'how' or 'why' questions is more fruitful than using yes-no questions. Probes, paraphrases and synonyms should be thought up beforehand to correct misunderstandings and avoid hesitations in the student's answers. The interview should be concluded with some general questions about the student's feelings about this WPL stage and a reflection on his approach to working.

However, the order and specific formulation of questions depend largely on the student's specific situation (for example concerning his previous education), observation results, the reaction of students to former questions and the like. On the other hand, an equally 'rich' interview providing answers to the same research model elements should be yielded with every interview. The procedure and main topics are therefore the same for every interview. All topics should be discussed as referring to the same meanings with every student. Meanings are therefore noted between brackets or further explained in probes in the interview guide. Each student is interviewed for one-and-a-half hours.

#### *WPL mentor interview*

Some of the same topics addressed in the student interview should be examined from the mentor's point of view (Table 3.2). In addition, more specific workplace environment questions are asked, for example about the structure of the organisation. The same type of strategy is applied for determining the order and formulation of questions as in the student interview. We aim to interview each mentor for an hour.

#### *WPL teacher interview*

This interview serves to provide more information about the teacher's perception of the student's current development, the curriculum concerning WPL in terms of integration

measures and broader context and design, and the teacher's opinion about the training company. The same type of strategy for determining the order and formulation of questions is applied as in the student interview. We aim to interview teachers for one hour.

### 3.4.3 Documents

Material to be consulted for information about the learning process concerns for example the workbook and the assignment book. We also aim to study other possible material used for the integration between school and work. In addition, material about the training company can be consulted to describe the related learning environment elements.

## 3.5 *Case study design conclusions*

Although we do not know in advance exactly what situations and events are important regarding WPL, we want to approach all the cases in a similar way. In addition, quality considerations such as triangulation need to be thought about beforehand. A good outline is also required to be able to connect to the WPL schedule with the observations, and plan interviews and workday observations for multiple cases within the same period. However, practice cannot be organised beforehand to meet this design entirely. We do not want mentors and students to schedule or reschedule any appointments or force any progress evaluations because of the study, as we wish to give a description of the usual procedure as far as possible. In addition, the aim is to find out what other integration measures are used, and what learning environment characteristics and learner characteristics turn out to be relevant, in addition to the framework as defined beforehand. This means that some adjustments to the design need to be made along the way.

In Chapter 4 we discuss design specifications and analysis of cases in the context of the SVE Care course, and in Chapter 5 and 6 we present the results of these case studies. In Chapter 7 the design specifications, analysis and results of case studies in the context of the SVE Retail course are presented.

## Chapter 4

### Design specifications and analysis Care cases

#### 4.1 Introduction

We aim to describe how students learn in WPL and what the difference in learning processes and related learning outcomes is between s-b pathway students and w-b pathway students. In this chapter we explain how the case study approach as explained in Chapter 3 was applied in practice for case studies in the SVE Care course context, and how the data were analysed. In section 4.2 the application of the design in the context of the Care cases is described. In 4.2.1 the selection of Care cases is explained. Adjusted data collection contact is discussed in 4.2.2. In section 4.3 we explain how we analysed the data for the Care cases.

#### 4.2 Application of design to Care cases

##### 4.2.1 Case selection

Not all SVE educational levels (see Table 1.1) are equally suitable to select respondents from. Level 1 students usually have problems with learning, and it would be extra difficult to conduct research into learning processes with this group. This problem also applies to level 2, although to a lesser extent. Level 4 students from the specialist course follow a very particular course and are mostly to be found in the work-based pathway<sup>1</sup>, which makes it hard to compare the two pathways at this level. Level 3 students can be found (generally in numbers of equal magnitude) in both pathways and would be more suitable as a target group for this study than level 1 or level 2 students. We therefore selected level 3 students for participation in this study. For the first set of case studies, we selected Care students. In the following we refer to cases as students, because a specified WPL period of one student in a particular training company is viewed as a case. For example, 'Anne's case' refers to Anne's WPL period in a nursing home, which was examined for this study.

Students were selected in cooperation with the responsible schoolteacher from the participating ROC. First-year students from both the s-b and the w-b pathway start with seven months of school before they enter professional practice. The first ten-week period of WPL starts at the same time for all students. This ten-week period is concluded with the summer holiday for s-b pathway students and w-b pathway students have their first mid-term evaluation then. To have comparable periods of study for

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<sup>1</sup> [www.statline.nl](http://www.statline.nl) Retrieved October 31<sup>st</sup>, 2005.

students in both pathways, we carried out data collection in this first ten-week period. At the time of the study, this period was from April 13<sup>th</sup> to the end of June, 2004. The students had started their course in August 2003. Three students from each pathway were selected. These six students in total were employed in three different nursing homes: one student from each pathway per nursing home as shown in Table 4.1. This allows us to explore differences between students from the same pathway but in different nursing homes, and between students from different pathways but in the same nursing homes. Although homogeneity of the group was intended, there was little scope for manipulation of the selection, given the criteria of regular (non-adult) first-year students from the same school, divided into pairs of s-b pathway and w-b pathway over three nursing homes.

The WPL mentors and WPL teachers of s-b pathway students also participated; s-b pathway teachers are more actively involved in guidance than w-b pathway teachers. The latter only discuss WPL with the student once during the ten-week period under study, and have to base their evaluation contribution on what the mentor and student tell them about it. They were therefore not involved as respondents.

Table 4.1: *Participants and nursing homes*<sup>2</sup>

Nursing home	S-b pathway	W-b pathway
Nursing home A	Student: Mary Mentor Grace Teacher Mona Bonnie after transfer <sup>3</sup> Teacher Mona	Student: Dennis Mentor May
Nursing home B	Student: <i>Bonnie</i> Mentor Andrew	Student: Anne Mentor Andrew
Nursing homes C & D (different annexes of same home)	Student: Tonya Mentor Layla Teacher Joyce	Student: Claire Mentor Dora/Sookie (two)

#### 4.2.2 Data collection contact

Beforehand we planned to observe a progress evaluation, the mid-term and final evaluation and part of a working day. We also planned to interview the student, mentor and teacher. In addition, we wanted to analyse the workbook and the assignment book. In practice, the opportunities for connecting data collection to already existing activities to discuss and assess learning were slightly different than planned beforehand. First-year s-b pathway students have a WPL preparation lesson at school and an introduction into the workplace. We added observations of these events to the data collection plan

<sup>2</sup> All names are pseudonyms to preserve anonymity. As five out of six students were female, we will refer to the Care students using 'she' and 'her'.

<sup>3</sup> After some weeks, Bonnie appeared not to be able to cope with home B's residents. She therefore transferred to home A, which accommodates less dependent residents.

(see Table 3.1). For s-b pathway students a final evaluation of the first WPL period is organised at the end of the first ten-week period. These students also have two school feedback hours after approximately two and eight weeks from the start of WPL. This is an integration measure that we decided to study as well. W-b pathway students did not appear to have any school feedback hours. Their final evaluation could not be observed either, because it took place outside the period of the study.

The interviews were planned at the end of the period to look back on the entire WPL trajectory. Student interviews took between one-and-a-half and two hours. Mentors were interviewed for between one and one-and-a-half hours. After data collection contacts, such as the research acquaintance and observation of the introductory interview, we sent an email to the WPL mentor with a short summary and, if required, remaining questions. The teacher interviews took between one and one-and-a-half hours. In Table 4.2 we show data collection contact for the Care case studies as adjusted from Table 3.1 in the previous chapter. In Table 4.2, the differences in data collection contact between s-b pathway students and w-b pathway students are indicated in italics. The duration of data collection contact is also included in Table 4.2.

Owing to the sickness of students and mentors, the transfer of one student to another nursing home after a few weeks, and other practical complications, data collection contacts could not be entirely standardised across cases. We chose not to disregard any data in favour of standardisation because these complications and the way they were handled are also interesting for the study, and, more to the point, they are part of the findings. Details are discussed in each case.

To make a curriculum description, we studied the workbook and the assignment book and asked the WPL teachers more specific questions in the interview. However, there was little time to examine the curriculum in a detailed way with the teachers, in addition to discussing the students' learning processes. We therefore interviewed another teacher and a curriculum coordinator together, to specifically discuss the curriculum regarding WPL. These teachers reviewed the resulting curriculum description on its completeness, after which a final description was made.

Table 4.2: *Adjusted data collection contact Care*

Phase	W-b pathway students	S-b pathway students
In advance of WPL start	Introduction of the study at school with students Acquaintance with WPL mentor at training company (around ½ hour)	Introduction of the study at school with students Acquaintance with WPL mentor at training company (around ½ hour) <i>Observation of WPL preparation at school (35 minutes)</i>
Week of April 13 <sup>th</sup>	Observation of (collective) introduction at training company (1 - 1½ hours)	Observation of (collective) introduction at training company (1 - 1½ hours)
Between fourth week of April and final week of May	Observation of one progress evaluation (½ – 1 hour)	Observation of one progress evaluation (½ – 1 hour)
Final week of April		<i>Observation of first school feedback hour (½ – 1 hour)</i>
Between second week of May and third week of June	Observation of part of the working day at training company (4-6 hours)	Observation of part of the working day at training company (4-6 hours)
Between third week of May and second week of July	Observation of mid-term evaluation with WPL teacher and WPL mentor (around ¾ hour)	Observation of mid-term evaluation with WPL teacher and WPL mentor (around ¾ hour)
Second and third week of June		<i>Observation of second school feedback hour (½ – 1 hour)</i>
Between third week of June and second week of July	Interview with student (1 - 1½ hours) Interview with WPL mentor (1 - 1½ hours)	Interview with student (1 - 1½ hours) Interview with WPL mentor (1 - 1½ hours)
Between third week of June and second week of July		<i>Observation of final evaluation with WPL teacher and WPL mentor (around ¾ hour)</i> <i>Interview with WPL teacher</i>

### 4.3 Analysis of Care cases

#### 4.3.1 Analysis preparation

Interviews were tape-recorded and transcribed verbatim. We also transcribed the observation notes. To determine the applicability of the research model and identify any other possible categories already during the process of data collection, we summarised two different data collection moments according to the contact summary sheet (CSS) approach (Miles & Huberman, 1994). This concerns summarising the main themes of the data per collection contact, and reflecting on how they are related to the research model. Further questions and any research procedure-related comments can also be identified. We also used this approach as an opportunity to discuss the relation of the data to the theoretical framework with two external researchers, to avoid researcher bias. One of the external researchers commented on a CSS as constructed by the original researcher, in relation to its relevance to the theoretical framework. This effort yielded information about further questions that might be relevant for the next data collection contacts. The other external researcher constructed a CSS herself from the

raw observation data. This effort served to find out what topics and situations another researcher would identify as important regarding the theoretical framework. It also helped identify the relevant parts of the data in relation to the first research question about how learning takes place.

To further assign meaning to the descriptive information gathered by data collection, coding was applied (Miles & Huberman, 1994). This concerns looking for core variables or themes, comparing fragments seemingly related to the same variable or theme, and relating fragments of different codes to find patterns (Kratwohl, 1998). We applied a constant comparison approach to systematically generate codes and further analyse the data (cf. Boeije, 2002). This means that fragments are constantly compared first within transcripts (an interview or observation or document), then between transcripts (interviews, observations and documents) within the same case and, ultimately, also between cases to label them, determine the appropriateness of codes after further comparison and, finally, generate a coding framework with which all the fragments can be coded satisfactorily. However, the codes were not entirely generated from the data as is normally the case in grounded theory (Boeije, 2002), because we first compared text fragments to the research model variables. For example, a fragment of the student interview "*I was born in 1981*" would be coded 'Learner background-age'. If a fragment did not fit the model, we applied open coding and comparison to determine the new code name and its definition. Memo-writing was used to document ideas and difficulties regarding the coding process, which were used for further development of the coding framework.

#### 4.3.2 Adjustment of framework for description

The learner background codes that were defined beforehand were age, gender and previous education. The 'other' category turned out to be quite large; consequently, we analysed whether it was made up of more specific categories. Firstly, we identified fragments that appeared to provide information about the learner's personality. Personality refers to "all of those fundamental traits or characteristics of the person that endure over time and account for consistent patterns of responses to everyday situations" (Furnham, 1992, p.13). Characteristics such as liveliness, spontaneity, creativity, modesty, laxity and insecurity can be categorised as personality characteristics (De Raad & Schouwenburg, 1996; Hofstee & De Raad, 1991). Secondly, 'other' fragments described the general motivation, goals, expectations and approach of students towards WPL and school. Examples of this category are the fragments "*I have no expectations regarding the next WPL stage*", or "*This is really work for us*". To label the student in relation to students from another sector in a later phase of the study and in relation to students from another pathway 'current education' was also added as a code. The remainder of the 'other' fragments concerned the learner's hobbies, the distance of the learner's house from the nursing home, whether the learner is a smoker, and such.

These fragments remained coded as 'other' learner characteristics and are mostly not regarded as relevant for the study.

Concerning the learning environment, we identified beforehand the integration measures WPL mentor and WPL teacher guidance and feedback, assignments, workbook, progress evaluations, and mid-term and final evaluations. S-b pathway students turned out to have school feedback hours in between the WPL period. This category was therefore added as an integration measure during coding. Different nursing homes used different 'other' integration measures, such as an alternative workbook, for which we maintained the 'other' code. Comments regarding the general structure and organisation of activities during the WPL stage were coded 'WPL curriculum'. Respondents also made comments about the curriculum in advance of WPL, which were coded 'Curriculum'.

To better fit the data, the training company characteristic categories were also slightly modified and completed. During initial coding efforts, the following categories turned out to be appropriate:

- content: type and nature of the work, for example about what types of tasks carers need to perform
- social: norms, traditions and values of the training company and the student's department, for example *"In this department we always help each other with finishing the work"*
- division of work:
  - horizontal division: division of work in terms of planning - execution - evaluation, for example about the care lists and the evaluation procedures
  - vertical division: hierarchical relationships, for example *"the department head runs the department; however, the mentor answers to the personnel manager"*
- workload (in stead of 'strain and stress'): positive and negative indications of the workload, for example: *"all carers need to hurry to finish the work in time"*, or: *"in the afternoon there is a lot less to do"*. This includes time pressure and physical workload
- size of the nursing home was added as a category, because some fragments concerned such a description. This concerns the number of residents and employees



In Appendix Ia the attainment targets and clusters related to the WPL phase studied are given, and in Ib the attainment targets selected for this study and the other learning outcomes are explained. We clustered and modified the attainment targets suitable to describe in this study (Appendix Ib), and identified 'knowledge of the organisation and work process', as a different learning outcome than the prescribed attainment targets. This outcome relates to the extent to which students are able to talk about and explain their training company, the work processes, and the 'why and how' of their job (cf. 'work process knowledge', Boreham, 2004), which is not explicitly included in the attainment target clusters. Additionally, in the students' workbook 'learning to learn' is indicated as an important goal for WPL. Therefore we included it as a learning outcome, although it is not explicitly mentioned in the prescribed attainment targets for the period studied. Learning to learn is likely to influence other outcomes. If students are not able to plan their learning or make assignments, they cannot satisfactorily realise the attainment targets. If initial training should provide a foundation for lifelong learning (see 1.3.1), it is important that students learn how to combine working and learning during WPL.

We also included two codes for comments related to the research, by the researcher or participants. Fragments related to this code are used to reflect on the way in which data collection was carried out in the discussion section (Chapter 8):

- researcher comments: notes made by the researcher about the progress of the study, about how respondents reacted to the study and about further appointments for data collection
- participants' comments on research: any remarks and questions by the participants about the study; for example about how they experienced the observations

#### 4.3.3 Check-coding

Miles and Huberman suggest that at least two researchers code 5-10 pages of transcripts and discuss their interpretations to improve the clarity of definitions and reliability. The outcome should be at least 70% proportion of agreement at first (Miles & Huberman, 1994). The fragments resulting from data collection in this study do not concern straightforward question-and-answer formats. They sometimes consist of words, then of sentences, and parts of sentences or several sentences that together appear meaningful in the semi-structured conversations, observations or documents that were analysed. This also means that a certain fragment could be coded with more than one code, or that overlapping parts of fragments could have different codes. For example, the fragment "*I like my team of colleagues because they work together well*" (student interview) refers to the motivation and feelings of the student regarding interaction with colleagues, and also to the social atmosphere in the training company. We highlighted parts of a fragment that related to one code to facilitate check-coding; on the one hand these

subfragments needed to be placed in context, while on the other this could complicate check-coding. In addition, categories were further defined during the analysis itself (see 4.3.2). We therefore conducted three steps of check-coding for thoroughly discussing definitions of codes and the framework as a whole. This led to a conceptually stronger coding framework and a thorough review of the type and number of meanings the data incorporated. The third step of check-coding resulted in an agreement of 75%<sup>4</sup>. The resulting coding framework was used for the definitive coding of all cases.

#### 4.3.4 Learning process analysis

For further coding and comparison, we loaded all transcripts into Atlas-ti (version 4.1). Transcripts were grouped per case in the analysis program. ‘Learning environment’, ‘learner background’, ‘learning process-social interaction’, ‘learning process-internal acquisition’ and ‘learning outcome’ are the main codes for text fragments. Regarding learning environment and learner background, all the fragments related to the subcodes of these categories could be grouped in an output file in the analysis program. This output was used as a basis for a descriptive text about the case in terms of learning environment or learner background.

Regarding the learning process, the learning outcome is the starting point for analysis. Fragments are either related to the subcodes of internal acquisition or to social interaction - concerning a particular learning outcome. For example, the fragment: “*Claire is reading the residents’ files*” points to social interaction - in this case transmission - related to the learning outcome ‘interaction with residents’. However, a single fragment cannot be directly categorised as a type of internal acquisition, because this depends on the development of the process from prior knowledge to the learning outcome, and the influence of motivation and emotion. For example, the fragment “*I could not put on support stockings when I started with WPL*” is coded Learning process-prior knowledge-personal basic care. By combining different fragments related to prior knowledge, motivation and emotion, the resulting learning outcome and possibly other situational information in an Atlas-ti output (See table 4.3), the type of internal acquisition regarding a particular learning outcome could be derived.

We wanted to use grading of assignments to determine to what extent learning outcomes were realised. However, assessment is one of the major problems SVE is dealing with (Stuurgroep evaluatie WEB, 2001). In addition, although mentors were supposed to assess assignments according to standard criteria, hardly any of the students completed any assignments during the period of the study in the first place.

Almost all the mentors made at most some general comments about the students’ progress during the mid-term evaluations, final evaluations and interviews. We attempted therefore to apply a more general framework for assessing the learning

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<sup>4</sup> For this step we selected five pages of quotations from two cases at random. Of 24 quotations, 18 were coded the same.

outcomes to have at least some means of determining progress. The information about competencies and subcompetencies in the data turned out to largely fit the levels of occupational skills as used by De Jong (1998). These levels of outcomes have been developed in the context of elderly care. They are:

- 1) Care operations: for instance changing a catheter bag, or putting on support stockings.
- 2) Professional activity: for instance preparing physically for a meal, notifying the patient and providing support, also afterwards.
- 3) Task: combination of professional activities, for instance 'nourishment and drinking balance'.
- 4) Function: different tasks that are performed for a certain 'living room' or 'hallway' of different patients.
- 5) Occupation: performing (4) ('function') independently in different contexts (elderly care, home care, care for the disabled).
- 6) The fifth level will not be observed in these cases because the students have not graduated yet.

Although these descriptions appear rather focused on psychomotor skills, the knowledge aspect is included and becomes more complex with every level. At the first level, the psychomotor aspect is emphasised. Students are able to perform the standard procedure for this action. The knowledge aspect concerns knowing the care list or protocol and performing the action in agreement with this standard. At the second level, students are able to prepare the patient for the action and offer support. In addition to the psychomotor aspect, the interaction aspect is also included. Students need to know the standard procedure and to know how to interact with residents. At the third level, more knowledge is required to be able to combine different actions. For example, students need to know what order of activities is most efficient and most pleasant for the resident (bathing before combing hair; feeding before bathing and such). In addition to psychomotor aspects, interaction aspects and knowledge of standards, students also need to be able to anticipate and solve problems at the fourth level. For example, what if the student is bathing one resident and another resident in the same bedroom becomes aggressive? At previous levels, colleagues are always available and are supposed to handle such problems. At the fourth level, the student is expected to anticipate, plan and solve problems herself.

Although the information given during the observations or interviews might not always be sufficient to determine how well the student is handling the activity in relation to the levels, we could at least determine whether they have been trusted with a particular level yet or whether they have not reached a particular level at all.

In Table 4.3 the analysis strategy is illustrated. In reality, the analysis process is less straightforward because more situational information may be required to make a complete description. In addition, there are outcomes that cannot be assessed on the basis of De Jong's levels, such as 'learning to learn' (Appendix Ib). In the results, these types of outcomes are verbally commented on regarding the extent to which they were realised, also in comparison with other students.

For cross-case comparisons, data displays were used (Miles & Huberman, 1994). By summarising and illustrating the research model element descriptions in displays, these could be compared to draw conclusions about patterns and exceptions in the data between cases. The comparison order is displayed in Table 4.4.

Table 4.3: *Analysis strategy illustration*

Fragment example	Code	Analysis
- "Anne has learnt how to interact with residents really well" (mentor interview) - "Anne is chatting nicely with Mrs. Smith, who appears to enjoy their talk" (observation fragment)	Outcome-interaction with residents	Derive <i>outcome</i> level (based on De Jong or verbal)
- "I really enjoy interaction with residents" (student interview)	Process-motivation and emotion-interaction with residents	Derive <i>internal acquisition</i> (also from situational information)
- "I did not know anything about demented elderly people when I started" (student interview) - "I did not know that I would be too lively for these residents sometimes" (student interview)	Process-prior knowledge-interaction with residents	
- "I watched how others approached residents" (student interview) - "My model told me I was too lively sometimes" (student interview) - "This resident reacted aggressively because I spoke too loud" (student interview)	Process-social interaction-domestic care	Derive <i>social interaction</i> (on the basis of interaction activity, role of others and learner's initiative and activity degree)
- "Colleagues always work together pleasantly" (mentor interview)	Training Company-social learning environment	Combine with other fragments to describe <i>learning environment</i>
- "Bonnie is a very shy person" (teacher interview)	Learner Background-personality	Combine with other fragments to describe <i>learner background</i>

Table 4.4: *Cross-case analysis strategy*

<ol style="list-style-type: none"> <li>1. Compare six Care students regarding the learning process displays: which internal acquisitions, social interactions and outcome levels; which influences in terms of learner, integration measures and training company (Chapter 5 and 6)?</li> <li>2. Compare s-b pathway with w-b pathway students within Care (Chapter 6).</li> <li>3. Compare six Retail students (Chapter 7).</li> <li>4. Compare s-b pathway with w-b pathway students within Retail (Chapter 7).</li> <li>5. Compare Care students with Retail students (Chapter 8).</li> <li>6. Compare s-b pathway students and w-b pathway students of both sectors (Chapter 8).</li> </ol>
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## Chapter 5

### Learning processes in Care

#### *5.1 Introduction*

In Chapter 1, we formulate the first research question as: “How can we describe WPL learning processes and related learning outcomes?” As a result of the data analysis, the model presented in Chapter 2 (Figure 2.3) was refined as presented in Figure 5.1. This model is the descriptive framework for the Care case studies. To answer the first research question, learning is described according to the elements of this research model. Firstly, we describe the general WPL curriculum for all Care cases together, in section 5.2. The other elements of the research model are described by case. In section 5.3 we explain in more detail how the case descriptions are structured. In section 5.4, ‘Anne’s case’ is presented as an example of an extensive case description and of how the subsequent conclusions are based on the full description. The other five extensive case descriptions are presented on the accompanying CD-ROM for reference. In Chapter 6, we present the summaries and conclusions of these five cases and the cross-case conclusions of all of the Care cases.

#### *5.2 Care curriculum and WPL*

##### 5.2.1 Curriculum components

In this section we describe the Care curriculum directed to WPL as the general context of the case studies. Curriculum refers to the plan for providing sets of learning opportunities for persons to be educated (Saylor, Alexander & Lewis, 1981). This involves the methods and material that are used to realise student learning (Nijhof, 1993). Differences in interpretation and experience between the original designers of the curriculum, users, such as teachers, and students may lead to different outcomes than originally intended (Van den Akker, 2003). We should be aware that the description of WPL processes in this study is a combination of the operational curriculum and what is experienced and learnt by the students.

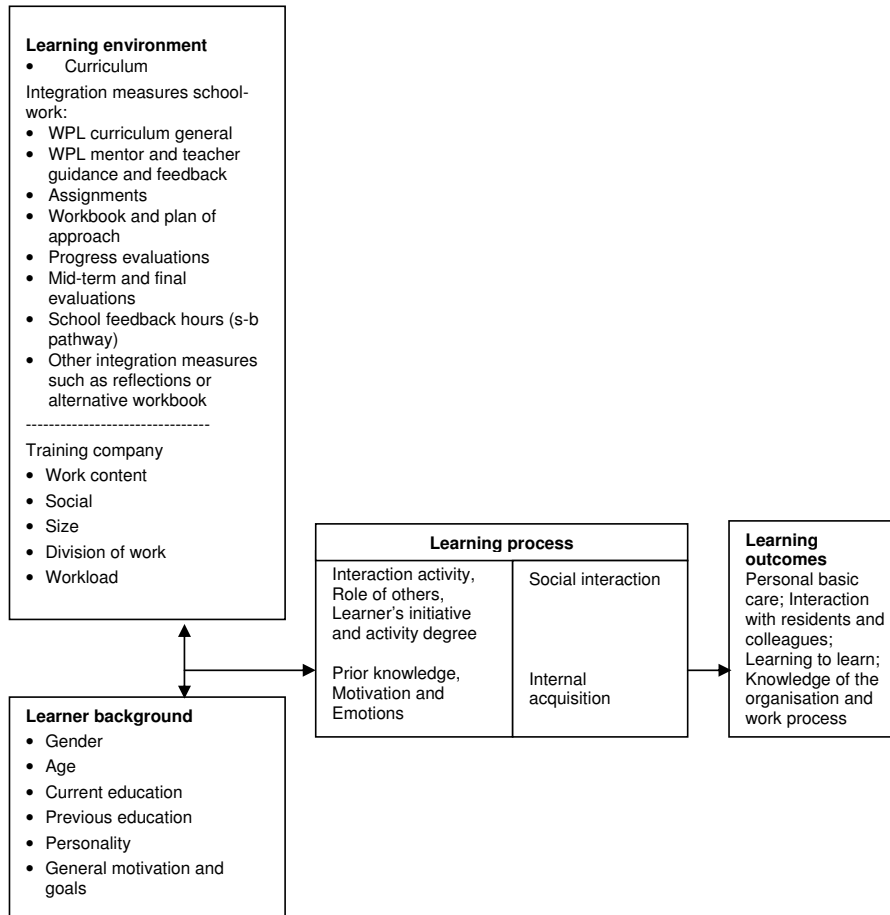


Figure 5.1: Adjusted framework of description

Purpose, organisation of learning and content are the three basic elements of a curriculum (Van den Akker, 2003). Rationale and aims and objectives are subelements of the curriculum purpose. Learning activities, teacher's role, materials and resources, grouping, location, time and assessment are subelements of organisation of learning. Content relates to the question what should be learnt (Van den Akker, 2003). In Table 5.1 the focus for each of the curriculum components is displayed. In the following, we describe how these components are addressed in the Care curriculum of the ROC involved. This description concerns the curriculum for the school year in which the study took place: 2003-2004.

Table 5.1: *Explanation of curriculum components* (Adapted from Van den Akker, 2003, p. 4)

Curriculum component	Refers to
Rationale	'Why' of learning (overall principles and central mission)
Aims and objectives	Goals of learning
Content	'What' of learning
Learning activities	'How' of learning
Teacher's role	'How' of facilitating learning
Materials and resources	Source and media of learning
Grouping	Extent and method of cooperation in learning
Location	Place of learning
Time	'When' of learning
Assessment	Progression of learning

In this curriculum description, integration measures are also discussed in terms of their formal meaning. WPL mentor and WPL teacher guidance and feedback are discussed in the section about the teacher's role. Assignments are discussed in materials and resources and in assessment. The workbook is also discussed in materials and resources. Mid-term and final evaluations are discussed in assessment. The school feedback hour is discussed as a part of learning activities.

### 5.2.2 Rationale

Although graduated carers help clients with personal care, such as bathing, and domestic tasks, care is directed at maintaining or improving the client's autonomy. Ill, elderly or handicapped people are part of the client group. In this study we focus on elderly people as the client group. Care students also need to learn how to cooperate in a team. Level 3 students need to learn how to plan and provide guidance to clients and their families in addition to normal care tasks. They also need to become able to provide health information and education to these clients. In terms of occupational attitude, Care students need to be willing to empathise with others, gain and show respect, be able to cooperate in a team, be able to handle criticism and be interested in health care.

### 5.2.3 Aims and objectives for WPL

Learning outcomes are defined as attainment targets (Commissie Kwalificatiestructuur, 1996) such as "The graduate should be able to describe in which situation support with basic care and domestic care is given" and "The graduate should be able to evaluate a care plan". Clusters of attainment targets that students are required to achieve during WPL in the basic phase (first 20 weeks of WPL) are:

1. Domestic care (and care of housing conditions) (202<sup>1</sup>)
2. Interaction in occupational situations (204)
3. Planning of care (301)

<sup>1</sup> Numbers refer to the official, national attainment target clusters.

4. Basic care (302)
5. Prevention and health information & education I (303)

At the time of the study the ROC was in the process of developing competence-based learning outcomes (see Appendix Ia). Basic, generic competences are focused on in the basic phase. In the main phase, generic and specific competences are dealt with. More in-depth knowledge and competences are supposed to be developed in the differential phase. This structure is called ‘concentric’: skills are intended to be dealt with more generally at first, after which they are acquired in and applied to different situations, simultaneously with the acquisition of additional skills and knowledge.

In addition to the attainment targets, application of what has been learnt at school to practice is the general goal of WPL. As a preparation for the demands of professional practice, students also need to learn how to learn. A student profile related to specific phases of the course, concerning what behaviour the student should display at the end of each phase, is presented in the workbook. Learning behaviour, work behaviour and learning result are specified in the profile. The part of the profile (basic phase) about learning behaviour explains that the student should be able to discuss learning, be able to deal with and use feedback, be able to deal with and use guidance, be able to plan learning and, also implied in the former subjects, express an active attitude towards learning. Work behaviour is categorised into responsibility, complexity and transfer. Concerning responsibility, students are supposed to be able to provide and coordinate basic care and domestic care to assigned patients. Planning, execution, evaluation and reporting regarding basic care are also part of their responsibility. In addition, the w-b pathway student is required to develop positively as an employee. This means that the nursing home’s care vision is applied and that the collective agreement, house rules and departmental goals are respected. Regarding complexity, the student performs care in predictable situations (not deviating from planned care) and reacts adequately when complexity increases. An adequate reaction may refer to simply reporting an incident, conferring with colleagues about incidents and required action, or conferring with colleagues and colleagues from other disciplines, such as the physiotherapist. The transfer category reflects the idea that the student is capable of applying learnt skills in comparable situations of low complexity.

#### 5.2.4 Content

The structure of the curriculum is modular. Modules are built up of subject matter related to a cluster of attainment targets (see 5.2.3). The basic phase of the course starts with an introductory module. Other module subjects are ‘interaction in occupational situations’ and ‘domestic care’ (two modules). Basic care is a large cluster of attainment targets and is therefore addressed in a range of modules. The subjects of these modules are care of appearance, rest and sleep, nutrition and metabolism, excretion, sexuality and reproduction, medicine, and vital functions. Prevention and health information &



education I is a separate module. Planning of care is addressed in three different modules. The other modules are not explicitly related to the clusters that are part of the WPL period studied.

Five weeks before the start of WPL, s-b pathway students indicate the sector and training company of their choice by means of a form. They can choose from maternity care, homecare, nursing home care, the mentally disabled or a home for the elderly. Students may indicate a preference for a specific home. The school contacts the training company to arrange acceptance. Once accepted, the student is supposed to make an appointment with the assigned WPL mentor. W-b pathway students have applied for a job in a specific nursing home before they enroll in the SVE course.

#### 5.2.5 Learning activities

At school the lessons are teacher-centred. Students also work on questions in small groups. Practical skills, such as bathing others or interaction skills, are practised in a special classroom. In advance of the WPL period students need to prepare themselves by formulating a plan of approach. Guidelines for producing this plan are included in the WPL workbook for s-b pathway students. Students should formulate questions for the introductory interview with their future WPL mentor. In their workbook, it is suggested that students should formulate questions about for example patients, the goals of the care department and methods of consultation in the nursing home to be answered in the introductory period. They should also plan what assignments will be made during this WPL period, and how these could be grouped. The learning activities required to complete the assignments are also part of the plan of approach. Students need to plan what theory is required and whether they need to observe, plan meetings, receive instruction, practise and exercise. They should provide reasons for their choices. S-b pathway students should finish the plan before the start of WPL and discuss it with their WPL teacher before they enter WPL. They have the opportunity to prepare for WPL in the preparatory lessons in advance of WPL. W-b pathway students should complete a plan during the four weeks of introduction in advance of WPL and discuss it with their WPL mentor. They receive a format at school.

After having made the acquaintance of their WPL mentor and others involved in the department, students usually have a (collective) introduction to the nursing home. Other learning activities are assignment completion, the school feedback hours, the mid-term evaluation and the final evaluation. Progress evaluations are usually also part of the learning activities at the training company during WPL. S-b pathway students' school feedback hours take place after around two weeks and after around eight weeks of WPL. These feedback hours take place at school with the WPL teacher and the other students who are guided by this teacher. In advance of these meetings, the students need to produce a report, to be handed in five days before the actual meeting. Students are required to describe prior expectations and how these were met. They should also

describe an important WPL learning experience. Guidance and feedback are further topics of this report. In conclusion, students are supposed to comment on their planning in relation to assignment completion.

W-b pathway students are in fact supposed to schedule meetings for school feedback hours with their WPL teacher during the two-week period of school in between the WPL period. Discussion topics should be whether everything is clear to the student, and whether the student is on the right track. Further discussion topics are possible problems and progress regarding the assignments. W-b pathway students are supposed to produce a report as well. This should be handed in at least one week before the actual meeting. Students and the teacher also make an appointment for the next meeting. However, in practice w-b pathway students did not have any school feedback hours.

#### 5.2.6 Teacher's role

Students are expected to self-regulate learning during WPL. They should also be increasingly autonomous in this respect. Expected learning behaviour is explained more specifically in the 'student profile' included in the workbook (see 'aims and objectives'). During WPL, students are guided and assessed mainly by the WPL mentor and/or role model from the nursing home. In general, the mentor monitors the learning process and the student accompanies the role model at the care department. Teachers are supposed to guide the student in close cooperation with the WPL mentor, to integrate theory and practice and to monitor learning. During the feedback hours at school, WPL teachers are supposed to discuss the main aspects of the students' reports (see 'learning activities'). Both occupational and learning process aspects need to be discussed. WPL mentors and/or role models are supposed to work with the student to assess her completion of assignments. Final assessment takes place when students have also completed the written part of their assignments. For the mid-term and the final evaluations, the teacher visits the nursing home (see 'assessment').

#### 5.2.7 Materials and resources

The workbook is a main source for guiding the s-b pathway student through WPL. This workbook includes an explanation of assignment completion, the content of WPL in relation to the course as a whole, the goals and objectives of WPL, the organisation of WPL, learning activities that need to be performed, an example of the evaluation form and an overview for filling in which assignments have been completed. Suggestions to the WPL mentor for assessing assignments are also included. W-b pathway students do not have a workbook at their disposal, because the workbook is mainly directed at students who are new to working in care institutions. W-b pathway students have often worked in a nursing home already. In addition, the w-b pathway students' course structure is not based on 10-week stages as in the school-based pathway. They receive guidelines for making a plan of approach for assignment completion for an entire school year.

Assignment completion and content is explained in the assignment book. Assignments are clustered into main assignments. For each main assignment, a plan for completion should be made by the student, in agreement with the mentor. This mentor assesses whether the main assignments have been completed adequately. In the assignment book, each main assignment is introduced in terms of content and expectations. Also, the assignments are linked with the related cluster of attainment targets. Subsequently, criteria, questions and procedures for each of the assignments are described. For example, the subassignment of 'planning domestic tasks' belonging to the main assignment 'Domestic care' is described as in Box 5.1. 'Domestic care' consists of five subassignments in total.

Each subassignment should be commented on by means of a self-evaluation form by the student. For the mentor, an assessment form serves to comment on the student's performance for each of the assignments. In conclusion, a 'compilation sheet' is included in the assignment book to be filled in by the mentor/model, for noting the results (fail/pass) for each of the subassignments, together with a signature. This form should be signed by an ROC representative and the student.

#### 5.2.8 Grouping

At school students are grouped together in classes. For parts of the lesson, students may work in subgroups to answer questions. During WPL, students are assessed based on their individual performance. They make the assignments individually and usually accompany their models individually. During feedback hours at school, groups of around six people, depending on the number of students a WPL teacher is guiding, share WPL experiences.

#### 5.2.9 Location

In addition to lessons at school, students are taken on excursions as part of the curriculum. For example, they visit a hospice, the crematorium, an innovative nursing home and the Museum of Anatomy and Pathology. WPL takes place in real nursing homes. Students should carry out the practical aspects of their assignments with real patients in their actual living environment of the nursing home. Written parts of the assignments can be completed in the nursing home as well as at home.

**Attainment target:**

The graduate is able to plan domestic tasks, taking into account the abilities of the patient and his/her relatives'. This assignment is performed in the care institution or in the patient's home. Patients need to be involved in what is going to happen. Subsequently, you have to look at how you are going to plan things to determine how you are going to start, what is done next, et cetera.

Make sure that in performing this assignment you:

- work hygienically
- work safely
- work ergonomically safely
- work environmentally safely
- work efficiently

1. Elaborate the abilities of the patient. This may be asked, observed or read in the care plan.
2. List the wishes of the patient and possibly his/her relatives'. Answer these questions:
  - What would I like to achieve?
  - What is the patient capable of him/herself?
  - What activities do I need to care for as a carer?
  - What activities can be taken over by volunteer aid?
  - What protocols and/or guidelines formulated by the care institution/organisation are applicable?
3. Elaborate what domestic tasks need to be carried out.
4. Process the outcomes of the first three questions in a plan of approach.
5. Discuss this plan with your mentor/model.
6. Carry out the activities in your plan of approach and mind the following aspects:
  - Take into account the experience of the patient and his/her relatives'
  - Connect to the perception of the environment of the patient
  - Involve the patient
  - Involve the volunteer aid
  - Use the right aids
  - Use the protocols and guidelines that apply in the care institution/organisation
7. Discuss the care you provided the patient or his/her relative with. Verify how they have experienced this.
8. Discuss your activities with your mentor/model. Select some issues for discussion yourself.

Box 5.1: Subassignment 1- planning domestic tasks (Domestic care)

### 5.2.10 Time

At level 3, the Care course takes three years<sup>2</sup>. The basic phase and the main phase take one and a half calendar year (60 weeks). The students from both pathways start with seven months of school in their first year. Consequently, instead of starting work directly, w-b pathway students only start working after seven months of school. The reason is that it is felt that they should be properly prepared, especially in a social respect, before being 'released' to care for real human beings. W-b pathway students have four weeks of introduction in their own nursing home, before actual WPL starts in April. They should have a labour contract for at least 16 hours a week. The first period of WPL for s-b pathway students coincides with the start of w-b pathway students' actual employment. W-b pathway students return to school for theory lessons for a two-

<sup>2</sup> Normative study load for a school year is 40 weeks of 40 hours. This means that the entire course of 3 years involves 4800 study hours, including WPL. [www.minocw.nl/documenten/web4termen.pdf](http://www.minocw.nl/documenten/web4termen.pdf) Retrieved September 24<sup>th</sup>, 2006.

week period after eight weeks after the start in mid-April. Approximately eight to ten weeks after the start, their first mid-term evaluation takes place. After the first seven months of school, eleven weeks of school are scheduled in the entire course. WPL covers 70% of the course.

S-b pathway students have ten weeks of WPL in the first year, starting in April. They have a 36-hour working week. They return to school for a feedback hour with the WPL teacher and a group of students after around two weeks and after around eight weeks of WPL. Halfway through WPL their mid-term evaluation takes place (in the training company, with the WPL teacher participating) and the ten-week period is concluded with a final evaluation. Depending on the employment area of their choice, s-b pathway students have either three WPL periods of ten weeks scheduled in the main phase, or two WPL periods in the main phase and another ten-week period in their differential phase. In total, they have nearly 60% of WPL in their course.

Table 5.2: Time schedule WPL and school per pathway

School year	S-b pathway	W-b pathway
1	30 weeks (seven months) of school	30 weeks (seven months) of school of which 4 weeks (2X2) of introduction at training company
1	Ten weeks of WPL	Eight weeks of WPL alternated with one two-week period of school
2 (basic phase)	Ten weeks of WPL in one block; and 10 weeks of school	18 weeks of WPL and two weeks of school
2 (main phase) - 3	Two ten-week periods of WPL and 30 weeks of school / three ten-week periods of WPL and 30 weeks of school when chosen to do individual care	53 weeks of WPL and 7 weeks of school when chosen for individual care
Differential phase	One ten-week period of WPL (differential: for example elderly care, maternity care)	53 weeks of WPL and 7 weeks of school when chosen for differential care

### 5.2.11 Assessment

Students show what competencies they have acquired and developed by completing assignments. Assignment completion is therefore subject to test regulations. All the assignments (see 'aims and objectives') need to be passed. Assignments have been compiled in the assignment book. Although, according to the WEB, ROCs are ultimately responsible for assessment, the Care section of the ROC involved has delegated assessment responsibility to the nursing homes. The reason is that assessment is context-related, and occurrence of situations in which the competencies can be shown is difficult to plan ahead. WPL role models and mentors therefore have a much better opportunity of assessing the student's competencies. Because students have the assignments at their disposal beforehand, they have the opportunity to use them as learning activities. Students may themselves indicate when they are ready for assessment.

Mid-term and final evaluations serve as a reflection on the learning process as a whole. Planning of WPL activities, the students' personal learning goals and the assignment clusters are important topics to discuss in these evaluations. Guidelines for the evaluations are written down on the standard evaluation form. This form is identical for the mid-term and the final evaluation. On the first page of the form, the names and signatures of all the participants, as well as the name of the nursing home, should be filled in. In addition, the phase of the course (basic/main/differential) should be indicated. Further headings on the form are:

- planning of learning activities
  - working systematically according to a plan of approach
- personal learning goals
- assignments
  - completed assignments
  - failed: ...
- cooperation with colleagues
  - contact, communication, assertiveness
- occupational attitude
  - values, rules and regulations, communication
- routine activities and factual knowledge
- problem-solving skills
- institutional goals
  - institution's vision, participation in clinical lessons<sup>3</sup> or theme meetings
- for w-b pathway students: the student as an employee
- conclusion

Under each heading the student and mentor can fill in their comments. Mid-term and final evaluations serve as formative evaluations for the student, to generate points of improvement for the next stage (of WPL or the first stage after graduation). In addition, this is a contact moment for the ROC and the nursing home. Teachers gain more insight into how the WPL process is guided in the particular nursing home, which may yield input for discussing learning and assessment. The mid-term and the final evaluations are scheduled to take 45 minutes.

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<sup>3</sup> Clinical lessons are nursing home-initiated lessons, in which clinical topics are further elaborated on. For example, diabetes may be a topic. Its symptoms, diagnosis and treatment may be a topic of discussion, related to care in the particular nursing home. Clinical lessons are not related to the course curriculum.

### 5.3 Care case descriptions

Learner characteristics such as age and previous education and training company characteristics such as size are general elements that can be described as a background for each case. Consequently, each case is introduced with a description of the learner's background, and the learning environment in terms of the training company and the WPL curriculum and integration measures as applied in the case<sup>4</sup> concerned. Then we discuss the development of learning processes. We restrict the detailed account to four learning outcomes the processes of which we describe extensively: 'personal basic care', 'interaction with residents and colleagues', 'learning to learn' and 'knowledge of the organisation and work process' because these appeared to be crucial for this study (see Appendix Ib).

Consequently, each learning process description is labelled with a learning outcome, such as 'personal basic care'. We first describe prior knowledge, motivation, emotions and relevant personality aspects of the learner regarding this outcome. Then we describe what types of social interaction were involved in realising this outcome, and how learning environment elements appeared to be involved. Next, we indicate which outcome level appears to have been realised and we deduce what internal acquisition has taken place. After the extensive learning process descriptions, we summarise the case background in terms of learner and learning environment, and summarise each process description in a one-page display. In these displays apparently important or remarkable influences are highlighted as a first step to drawing conclusions.

These displays are further compressed into tables resembling the research model (Figure 5.1). Here, however, they show the specific learning processes per category of learning outcome and the specific learning environment and learner influences. Based on these tables the final case conclusions are drawn in terms of learning processes, learning environment and learner influences and related learning outcomes.

In Figure 5.2 the description structure is visualised. We have first presented a general WPL curriculum description in the former section (A), proceed in each extensive case description with the case background (B and C) and the process descriptions (D and E) and finally summarise each case and draw conclusions per case (B, C, D and E).

In section 5.4, the extensive case description for 'Anne's case', including the case summary and the conclusions, is presented as an example. The other five case summaries and conclusions are presented in Chapter 6, and their extensive descriptions are presented on the accompanying CD-ROM.

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<sup>4</sup> These descriptions concern the situation in 2004. For example, recent innovations in the nursing homes or regarding the Care curriculum are not included.

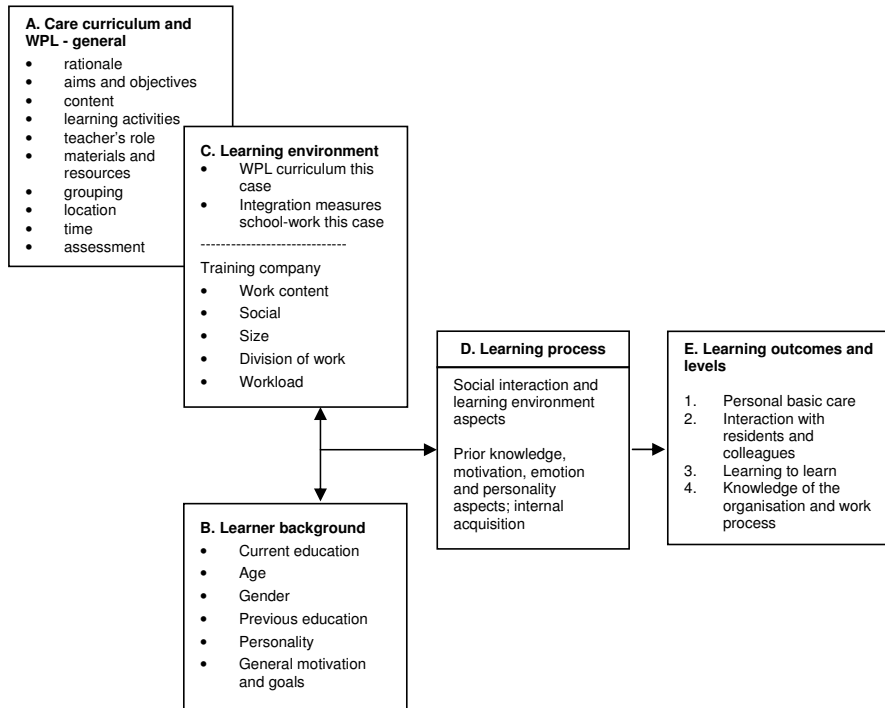


Figure 5.2: Description structure

## 5.4 Anne's case<sup>5</sup>

### 5.4.1 Background Anne's case

#### 5.4.1.1 Anne's background

Anne is an eighteen-year-old w-b pathway student. After having finished junior general secondary education<sup>6</sup>, she started a socio-cultural VET course in the s-b pathway. She

<sup>5</sup> After each statement or coherence of statements we indicate which sources and methods have provided information about which results between square brackets: Student interview: [si]; Mentor interview: [mi]; Teacher interview: [ti] Observation day observation, or any of the other observations during data collection contact (such as progress evaluation; introduction; see Table 3.2): [o]. This may also refer to what any of the participants verbally reported during an observation. Document analysis (such as students' assignments and mid-term evaluation forms): [da]. For example, the statement that Anne is a very lively student is followed by the indication [si; mi; o], because Anne's mentor and Anne herself have verbally reported her to be very lively in their interview. She also came across as lively during the observations. Sources are not indicated in case of externally determined information such as age and current pathway. Contradictions between sources are noted in the text. Literal quotations are displayed in italics and between quotation marks.



left this course in the first year because she hated school and wanted to go to work, although still in the framework of an education [si]. Anne then responded to a vacancy at nursing home B, which was pointed out to her by her mother [si]. She only accepted the job on the condition that she could have a holiday job first, to find out whether she liked it [si].

Anne comes across as a spontaneous and direct person. She is very lively [si; mi; o]. Anne is characterised as a 'doer' ('accommodator' in Kolb's terms, 1984) [si; mi; o] according to Home B's learning style test (based on Kolb, 1984), and a go-getter [mi]. Accommodators rely on concrete experience and active experimentation (Kolb, 1984). This description seems to suit Anne well. For example, just having to "*watch with your hands behind your back*" [si] during the introduction weeks frustrated Anne. She likes this job because she really enjoys interaction with people and chatting [si; o]. Anne hates school because doing everything the way teachers tell you to does not appeal to her [si].

#### 5.4.1.2 Anne's learning environment

##### *Training company*

Home B is a psychogeriatric nursing home, accommodating more than 200 residents<sup>7</sup>. Most residents suffer from senile dementia, which means that their short-term memory is affected [mi; si; da]. Forgetfulness is common among the residents; apart from that they are individuals with their own personalities [si]. In a later stage of senile dementia, physical abilities are also affected [da; si]. Diabetes and incontinence are examples of physical disorders from which the residents suffer [o]. Their mobility problems and mental illness may cause inability or unwillingness to cooperate. This makes care physically hard [mi; si; o] and may require carers to work in pairs to help a resident.

Carers at home B start a regular day shift at 7.30 a.m. by having coffee and tea together while reading the day schedule [si; o]. Residents' appointments with the doctor or the hairdresser are for example noted in this schedule; it also says which staff members are absent. Responsibilities for the day are assigned. To become up to date with the residents' health conditions, evaluation booklets and related resident files are also read. Then the residents are woken up, bathed and dressed. In the living rooms residents are provided with breakfast by the kitchen assistant. When this assistant is very busy, carers may help them. After carers have discussed further tasks, there is a morning break. After the break some residents still need to be bathed. When all residents are out of bed, the carers make the beds, clean up, supplement towels and washcloths, and take care of other small (domestic) tasks. Around twelve, the afternoon meal is provided. The

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<sup>6</sup> Dutch: VMBO-theoretische leerweg (pre-vocational secondary education), formerly known as MAVO.

<sup>7</sup> In 2004, nursing homes had the capacity to accommodate 81 residents on average. However, in the geographical area of the study, nursing homes had an average capacity of 172 beds. [http://www.rivm.nl/vtv/object\\_map/o1558n21299.html](http://www.rivm.nl/vtv/object_map/o1558n21299.html) Retrieved March 22<sup>nd</sup>, 2006.

residents are helped with their meal in the living room. A graduated carer takes care of medicine distribution. Then carers take their lunch break. One or two of them stay behind to help the residents finish their meals. When carers return from their break, they confer about the remaining tasks again. Coffee is served to the residents. There is also a toilet round. Some residents have taken an afternoon nap and are woken again. For the remainder of the day shift, carers chat with residents, put on some music or go for a walk with them. Evaluation and transfer takes place around three or four, after which carers have tea together. Residents may be provided with more drinks and a snack. At 4.15 p.m. the day shift finishes.

During the mornings, carers need to work hard to finish personal basic care and distribution of meals in time [mi; si; o]. Absence of only one carer already has an effect [si]. This was obvious during the observation day and a frequent topic of discussion during this day [o]. In addition, Anne's living room consists of the highest number of bedridden residents, which also implies more work. During the afternoon, the workload was observed to drop for Anne [o; si]. However, throughout the day her role model's pager was observed to ring rather often implying a high workload for him [o].

Nursing home B aims to provide care that is in line with what residents were used to at home [o; mi; si]. This means that it aims to pay attention to the type of person and their wishes. In the past residents would have less say in the kind of interior design of their accommodation or regarding recreational activities [o; mi]. Although living rooms are furnished with comfortable chairs, a television, a stereo set, and sometimes even a budgerigar and paintings on the walls, the atmosphere of the interior decoration still comes across as rather gloomy [o]. However, in the near future a new building is to be constructed in which residents will have their private bedroom instead of the shared four-person bedroom they have presently [mi; si]. This also involves a new way of working. Care will be adjusted more to the personal needs and wishes of the residents [mi]. For example, residents of the same age could be grouped together in a department [mi], and the privacy of residents should be respected better [si].

Maple, Anne's department, accommodates around 30 residents and around the same number of employees, half of whom work part-time. Anne's fixed living room group consists of eight residents. Besides Anne, two other w-b pathway students work at Maple [mi]. Maple consists of a very tightly-knit team [mi], with an apparently pleasant social atmosphere [o; si]. Anne really likes her colleagues [si]. Anne's mentor feels that everything can be discussed at Maple [mi].

#### *WPL curriculum and integration measures*

Alan is Anne's role model. Other colleagues may also function as role models. Andrew is Anne's WPL mentor and John is her WPL teacher. Andrew worked as a carer at home B for more than 15 years, before he became a WPL mentor appointed to the

personnel department. The training of graduated employees is also part of the mentor function. Andrew keeps up to date by receiving information from the ROCs and participating in courses himself [mi]. He uses a large overview board in his workroom, showing where all the apprentices from all the school types are located per department, including their evaluations and school periods.

Before WPL starts in April, there are four introductory weeks in nursing home B. In the first half of this introduction, Anne needs to get to know the organisation, for example by interviewing staff members from different disciplines. In the second half, Anne already starts accompanying a graduated carer at her own department. Anne is planned supernumerary until the second week of WPL [o]. Students start with two months of day shifts to get to know home B's residents [si; o], rather than being assigned night shifts. Students rotate to different departments from the introduction to actual WPL, and again after around seven months [o]. First-year students are not allowed to administer medicine or to replace (graduated) colleagues. Students are not allowed to accompany residents on their own outside the nursing home at all, not even in the garden, before they have graduated [si]. Students receive an information booklet about WPL in this nursing home [mi]. In this booklet home B's history, vision and specific rules for students are explained briefly [da]. The booklet also includes an explanation of senile dementia and a fire drill and evacuation plan.

On the second day of WPL, Anne has a short introductory interview with Andrew. In addition to progress discussion in the mid-term and final evaluations, student progress is discussed in regular progress evaluations at home B, conducted by the mentor and possibly the model. In progress evaluations, mentors ask students about their plan of approach and assignment completion, for example. Andrew discusses the students' progress using a 'progress report', as shown in Figure 5.3. Anne is supposed to ask colleagues to fill in the form; afterwards this can be discussed [si; o]. Progress evaluations are supposed to take place every two weeks on average [mi]. Anne is told in her introductory interview that she needs to think about her expectations regarding WPL and have some progress reports completed by colleagues for the first progress evaluation. This first progress evaluation takes place one week after the start of WPL [o], with Alan present. In home B, w-b pathway students take a learning style test (Kolb, 1984) at the start of WPL, which Anne takes in this progress evaluation. Two weeks after the start of WPL, there is a collective assignment explanation at home B. After 12 weeks, Anne's first mid-term evaluation takes place. Clinical lessons at the nursing home (for example about diabetes) are also part of WPL. Anne is supposed to take increasing responsibility for her own learning process; for example by filling in the mid-term evaluation forms increasingly independently [mi].

Institution B	Progress report form
Student:	
Colleague:	
Date:	
Subject of activity:	_____
What went well?	
What could be improved?	
My tip is:	

Figure 5.3: Progress report form (original is A4 size)

Anne does not have a workbook for WPL, but only the assignment book [si]. In the collective assignment explanation at home B, specific guidelines for completing the assignments in this nursing home are explained. Completing assignments at home B entails practising them at work, completing them in writing and discussing them with Alan [o]. According to Anne, she only has to complete one subassignment per main assignment in writing at home B (see Box 5.1 for an example of a subassignment) [si]. For every main assignment, Anne should have two or three progress reports completed [si]. Preparation and completion in writing should be carried out at home [si]. Each task should be prepared, a plan of approach for each task should be made, the model should supervise performance of the task and performance should be evaluated together with the model [da].

Although Anne is supposed to participate in lessons for a two-week period after eight weeks of WPL, only three half-days of school are scheduled [si]. Anne has time off for the rest of the two weeks. Anne does not have any school feedback hours with the WPL teacher during the period of the study.

## 5.4.2 Anne's learning processes

### 5.4.2.1 Process description of Personal basic care

#### *Personal basic care in nursing home B, Maple department*

[observation fragment:] Anne and her role model Alan start with bathing Mrs. Stewart, who is in bed. Mrs. Stewart complains because she is in pain. Anne tells Mrs. Stewart to lift her arms up for a moment. In the meantime Alan washes Mrs. Stewart's face. He makes this known to her verbally as well. To Anne, Alan comments that there is too much water in the washbowl (Anne put the water in). "Okay, it's a bit too much", Anne agrees. Alan tries to comfort Mrs. Stewart when she complains again. A little later, Anne imitates this action of comforting. They are both bathing Mrs. Stewart now, talking about it and about Mrs. Stewart's skin condition. Anne asks Alan about the little sore on Mrs. Stewart's skin. She says she has reported that this sore was still there in the file last week; however she has the idea that no one saw this note. Alan comments that the sore is already a little better.

Personal basic care covers the greater part of the morning tasks in nursing homes. After residents have been woken up, carers start with bathing and dressing them. Making the

beds, changing catheter bags, mobility support and wound care may need to be applied concurrently. Bathing residents is more complex than it seems [mi]. The resident needs to be prepared, the bed should be at the right height, and clean clothing needs to be selected beforehand. Washbowls need to be ready with enough water at the right temperature and with the right amount of soap, and washcloths and towels need to be at hand. In addition, the resident's privacy needs to be protected for example by closing the curtain and the bedroom door in advance. Personal basic care in nursing home B can be physically hard because the residents' physical and mental abilities are limited. They may therefore not be able or willing to cooperate. This may also cause time pressure to increase.

#### *Prior knowledge*

At school Anne practised bathing peers (only partly) instead of real residents. The 'ADL'<sup>8</sup> method was explained as a procedure for personal basic care [si]. This abbreviation refers to general basic activities that people need to perform every day, such as bathing themselves. Patients are supported from the view that they should bathe and dress themselves as independently as possible. Otherwise, there is a certain systematic way of helping them, for example bathing 'from head to toe'; all the people are helped in the same way. In nursing homes, however, when the patient's health condition is too poor, 'PDL' (passivities of daily life) is applied. In this case, patients are helped in their own preferred way. Although Anne was told at school that PDL may replace ADL, she did not learn how to apply it [si]. Consequently, Anne does not have prior experience in bathing the actual target group of nursing homes and she has not learnt to apply PDL in practice. Her prior knowledge is therefore partly incorrect and insufficient.

#### *Motivation, emotion and personality*

Anne is highly motivated to perform basic personal care, because it is her favourite work activity [si]. She likes the close individual interaction with the residents [si]. Her motivation shows during the observation day: Anne encourages residents and likes chatting to them and making jokes with them [o]. She experiences the physical workload as high because residents may not be able to cooperate physically: "you need muscles to work here" [si], or mentally.

#### *Social interaction and learning environment*

During the first two weeks of the introductory period, Anne is only allowed to accompany and watch [si; mi]. During the second two weeks, she is allowed to start bathing residents under close supervision by Alan and other graduated colleagues [mi]. This supervision gradually decreases. For example after a couple of weeks, Anne is allowed to care for some residents independently and Alan drops in every now and then

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<sup>8</sup> 'Algemene dagelijkse levensverrichtingen' in Dutch.

to check up. Students can themselves indicate whether they are ready to work more independently [si]. However, colleagues work together a lot to finish the work, even when graduated [o; si]. Later on in the morning of the observation day, when Anne is left to work more independently and Alan only stops in now and then, Anne is observed working together with other colleagues. For example, she helps a colleague who is bathing a resident lift this resident [o]. After around four weeks of WPL, Anne has started to notice differences in handling the bathing procedure among colleagues. During the observation day, she also comments to Alan about these differences: “*Everyone does it differently!*” He tells her that she should do what is most comfortable for her [o]. Within the standards for residents’ well-being, you appear to be allowed to apply your own way of working. Anne claims she has developed her “*own way of working*” at the end of the study period [si; o].

Anne has observed, listened (to the day schedule being read and) to colleagues and residents, asked questions, read care lists and files and made notes for the evaluation booklet and residents’ files as interaction activities regarding personal basic care. Trying out and imitation also occurred as interaction activities during this first phase of WPL [si; o]. Related social interaction processes are perception, transmission, experience and imitation. Developing her own way has been realised by observing colleagues, asking questions, trying out, working more independently and observing how residents react to different approaches. Activity is therefore also involved.

There seems to be enough opportunity to learn about the difference between theory and practice and develop deeper understanding in terms of work content and cooperation among colleagues. Different residents with different mental and physical abilities need to be bathed or showered and dressed, which takes up the greater part of the work time. In addition, the social atmosphere among colleagues seems to be good and they cooperate to finish the work in time and because the residents’ physical ability may require this [o]. Asking questions is permitted. However, during the personal basic care activities on the observation day, the workload is observed to be high and to be a frequent topic of discussion among the carers [o]. The former shift turns out not to have anticipated one resident’s chiropodist’s appointment. This means that the current shift has to miss one of the graduated carers to accompany the resident [o]. In addition, the large number of bedridden residents in Anne’s living room also implies more work [si]. During the observation day, Alan closely supervises Anne in the morning during the personal basic care activities. He instructs Anne regularly, answers her questions and shows her how to perform tasks regarding bathing and dressing. However, he mostly tells her what to do and corrects her rather than have her start first, or go into why this work should be done this way [o]. An example is that Anne asks Alan whether she can bathe one of the residents independently because she wants to write a progress report about it. Alan’s answer is that she can bathe the resident independently next time. It remains unclear whether he does not want her to write the report because of time

pressure, or whether he thinks she is not ready to bathe this resident independently yet. Nevertheless, the fact that he does not take the time to elaborate might be restrictive for deeper learning. Consequently, time pressure may prevent further learning. On the other hand, students are supposed to plan learning, such as performing assignment tasks, beforehand. Anne did not tell Alan in advance of this day that she wanted to write a progress report [o], while such activities are difficult to squeeze in ad hoc. In terms of integration measures, Anne has not used the plan of approach. She has not completed any personal basic care assignments and the subject is not specifically addressed in the mid-term evaluation [o].

#### *Outcome level*

At the end of the WPL phase studied, Anne has become able to bathe and dress residents relatively independently and has developed her own way of working [o; si]. She is able to carry out care activities such as putting support stockings on and showering the resident. She has also become able to carry out the entire activity (including preparation and support) and combine this with other activities. She claims that she performs this work as a routine [si]. Anne has been reading the assignment book, although she has not completed anything yet [o]. In addition, she is able to explain the ADL-PDL difference [si], which is one indication of the difference between theory and practice. At the end of the period studied, however, Anne is still not aware of the existence of protocols for personal basic care. She claims never to have seen one [o]. She therefore does not know what their status is either. Also, because Anne has not completed any of the assignments in writing, the question remains to what extent she would really be able to apply theory to practice and anticipate and solve problems in a variety of situations. These findings indicate that Anne has developed personal basic care to a 'task' (3) level (see section 4.3.4).

#### *Internal acquisition*

During the introduction, Anne finds out that "*nothing you learn at school can be applied in practice*" [si]. She has to re-learn how to perform 'personal basic care' in home B, because of partly insufficient and incorrect prior knowledge. From accompanying others and watching to accompanying others with gradually decreasing supervision, Anne develops more competence regarding personal basic care. After a couple of weeks she discovers that different colleagues might apply slightly different approaches, and that she herself could also develop her own way of working. Anne observes colleagues, notices a difference between the school approach and practice and between the approaches of different colleagues, asks questions about it, tries this out for herself, and ultimately develops her own way of working. She is highly motivated regarding this attainment target. Both accommodation (start and after a couple of weeks) and assimilation (after start and after realisation of developing her own way) appear to characterise this internal acquisition process. Reflection in the sense of afterthought about what was learnt at school and the differences in approach between

colleagues was also part of this process. However, Anne has not taken the opportunity to thoroughly reflect on the difference between theory and practice by means of the assignments yet.

#### 5.4.2.2 Process description of Interaction with residents and colleagues

##### *Prior knowledge*

Anne did not know Maple's residents before she started WPL [o]. Nonetheless, her previous vacation job at another department provided the opportunity to get to know the target group of demented residents in general [si]. Anne feels she has always been able to interact well with the residents [si]. Her liveliness, however, is experienced as a problem, because home B's residents may react aggressively or otherwise negatively [si; o].

Anne's colleagues do not always appreciate her liveliness either [mi; si; o]. Andrew characterises her as a "loose cannon" in the beginning [o]. Anne still has to learn how to work together with colleagues and how to confer at the start of WPL [mi]. For example because she is a 'doer', she just starts doing things instead of conferring with colleagues first [o].

##### *Motivation, emotion and personality*

What Anne likes so much about the job is that she can have a nice chat with and have fun with home B's residents [si]. Having fun and staying cheerful is important, because otherwise people only "want to go home and become sad" [si]. It may also be harder at home B, because many residents are no longer able to express themselves verbally. However, Anne makes an effort not only to apply the basic communication required to be able to care, but also to talk with the residents further [o; si]. Even when situations become problematic (residents' incontinence, residents complaining or being unkind [o]), she appears to try and do something extra to elicit a reaction from every resident she is caring for [o]. Although her liveliness may sometimes be experienced as a problem, it is also the source of her energetic appearance [o]. Anne really likes her colleagues [si; o]. In the beginning, there are some instances where Anne is perceived as being a little cheeky [o].

##### *Social interaction and learning environment*

Truly caring for people involves much more than technical skills. In addition, consultation among colleagues is very important. Interaction skills are therefore perceived as crucial at home B [mi]. Accordingly, interaction with colleagues and residents is explicitly discussed in the first progress evaluation [o]. Anne needs to get to know home B's, and especially Maple's, residents well. She aims to reach this goal by observing the residents and reading the files [o]. She also comments that the files are not completely up to date during the first progress evaluation, which means that she has already been reading them [o]. She plans to ask colleagues questions to make sure that



she is up to date [o]. Both Alan and Andrew tell Anne that conferring with colleagues before taking action is better, in relation to her tendency to 'do' rather than to think and confer [o]. Although Anne reacted rather defiantly, Andrew urged her a week earlier, in the introductory interview, to have several progress reports completed at this progress evaluation [o]. Alan also urged Anne to have colleagues other than him fill in progress reports and guide her concerning interaction [mi]. Later on, when Anne has left, Andrew explains that Anne can be rather lively and a little cheeky, which is possibly why he wants her to have colleagues comment on her performance already [o].

Throughout WPL, interacting with colleagues and residents is a normal part of Anne's work. Discussing work progress during the morning and after lunch and conferring about further activities are regular activities of a working day [si; o]. The day schedule is drawn up by the department head and communicated to and discussed with the team at the start of the shift. Cooperation among carers seems to occur frequently [o; si] because of the high workload and residents' mobility problems. This appears to occur pleasantly [o]. Colleagues are observed talking about work as well as informal topics, and making jokes together [o]. This all seems to have contributed positively to Anne's learning how to interact with colleagues. By asking them, Anne finds out which colleagues are graduated and what everyone's responsibilities are [si]. Andrew thinks that having to use the progress reports helps Anne to learn about interaction with colleagues. However, Anne does not really like using them because colleagues complain they lack the time to fill them in [si; mi]. This means that she has fewer reports completed than suggested by Andrew [si]. On the other hand, colleagues' tips as a result of the progress reports are useful to Anne [mi; si], also regarding interaction with residents [mi]. For example, her liveliness is pointed out by colleagues when Anne asks them about her performance [si]. Anne also notices herself how residents react to her liveliness, and adapts accordingly [si]. Colleagues from other disciplines, such as the physiotherapist, also provide suggestions regarding resident interaction. For example during the observation day, a physiotherapist confirms to Anne that a particular resident is supposed to use her (injured) arm rather than let it rest [o]. Although Anne had not formulated any personal learning goals in advance of WPL, she mentions "*becoming calmer*" as a personal learning goal during the mid-term evaluation. John, Anne's WPL teacher, points out that Anne could view Alan as an example for being calmer [o]. Besides transmission and experience, activity is an important social interaction process when Anne is refining her interaction skills further by more independent working.

Anne has not completed any assignments regarding interaction throughout the period of the study. She has not shown that she has used a plan of approach to improve her interaction skills either [o].

*Outcome level*

Although Anne has not completed any of the assignments regarding interaction with residents and colleagues, this is the attainment target in which she has progressed the most of all the learning outcomes [mi; si; o]. She has become calmer and treats residents respectfully [o]. Anne has shown herself able to handle different problems in interaction with residents. She has learnt for example, that one of the residents does not want to get up because of her back, but that this complaint is not well-founded. Anne knows now how to convince this resident to get up and accompany her [si]. Although Anne really likes making jokes with the residents, she now also knows when to stop. She feels she has really got to know the residents well [si]. These findings indicate that she has realised interaction with residents at 'function' (4) level.

Anne has also learnt how to work together and confer with colleagues better [mi; da; o]. Although she has progressed and she was observed commenting on Alan's performance during the observation day [o], providing feedback to colleagues still seems a little difficult for Anne [si; o]. She could show a more critical attitude [mi]. This also depends on the person she is working with. These findings indicate that Anne has realised interaction with colleagues at 'task' (3) level.

*Internal acquisition*

Anne's extreme liveliness needed to be controlled for her to be able to work with home B's residents and colleagues. Simply reducing volume or quantity of speech was not enough, because residents are also individuals who need a specific approach to interaction. However, Anne did not have to completely transform into a calm, silent person to perform well at home B. After having suppressed her liveliness to a sufficient level and having adjusted her interaction approach to specific resident needs, indicating accommodation, she appears to have learnt gradually how to treat residents respectfully and how to communicate with colleagues better by assimilation. This latter process is still ongoing, for example regarding providing feedback to colleagues.

5.4.2.3 Process description of Learning to learn*Prior knowledge*

Although assignments have been explained at school and in the assignment book, Anne does not understand how they have to be completed [o; si], not even after home B's collective assignment explanation: "*Those assignment books are rather difficult*" [si]. She finds planning learning difficult as well [o], and her plan of approach as formulated from the school's guidelines does not work for her [si; o]. Anne does not have any personal learning goals formulated beforehand [o]. Consequently, she does not know how to plan, start and direct her own WPL.

*Motivation, emotion and personality*

While Anne is really motivated for the job [mi; o; si], school is a secondary aspect to her [mi]: “*For us, this is really work*” [si]. Alan comments on Anne’s energy investment and the motivation she shows for learning as “*moderate*” [o]. Anne acknowledges that she has a rather lax attitude towards learning, especially regarding completing the assignments in writing [si; o]: “*I am not much of a writer*” [si]. Another example of this laxity towards learning is that at the end of the mid-term evaluation, Anne appears to express a lack of interest regarding the outcomes. When told to check the evaluation form, she reacts: “*Do I have to read all that?*” [o]. For assignments that can be done in practice, completing them in writing also seems unnecessary to her [si].

On the other hand, both Andrew and Anne claim that Anne worried a lot about the assignments at first [mi; si]. In addition, Anne wants to obtain good grades at school even though she hates school [si]. Obtaining a diploma is important to Anne, and because she hates school doing the w-b pathway is the best alternative for her [si]. Anne also comments that the assignments are required to really learn about all the components of care [si]. For example, serving coffee to the residents is “*really part of fluid balance and nutrition*” [si]. Perhaps Anne also finds it hard to pay more specific attention to her learning process because she finds the work physically hard. She might lack the energy to study and complete assignments after a working day. As a preparation for the mid-term evaluation, she eventually formulates avoiding delays (regarding assignments), making appointments (regarding assignment completion), dealing with feedback and becoming calmer as personal learning goals [o; da]. Anne is happy to be a student at home B, because she thinks it is better organised than in other nursing homes [si]. She gives starting in day shifts to get to know the residents as an example [si; o], because she has heard from students in other nursing homes that they had to take night shifts from the start. In addition, she appreciates always being allowed to ask questions [si].

*Social interaction and learning environment*

In the introductory interview, Anne is prepared for her first progress evaluation because Andrew tells her to think about her expectations and have some progress reports completed (by colleagues). During the first progress evaluation, Andrew, Alan and Anne discuss mutual expectations regarding her WPL. Anne clearly and elaborately states her expectations of Andrew, Alan and the (absent) department head (via Andrew), and vice versa [o; si]. For example, Anne expects that she can discuss problems regarding the course with Andrew and regarding the work with Alan. Examples of other topics discussed are how Anne feels about the job and why and how she will progress to more independent working. Anne is always allowed to ask questions, but she should take the initiative herself to plan assignments, make appointments for their performance and to complete them in writing.

Anne's first mid-term evaluation, in which Andrew and John participate, takes place 12 weeks after the start of WPL. The form as discussed in 5.2.11 was used. The meeting has been carefully prepared during the progress evaluation the day before, with Alan present. During this preparation, Andrew asks Anne the questions that John will ask the next day [o]. He takes Anne's form to copy and partly rewrite it on a new form during the evaluation the next day [o]. Alan also contributed to Anne's form [o; da].

At the start of the actual evaluation, John explains this and future mid-term evaluations. Although Anne is supposed to take the initiative, John needs to urge her to elaborate at the start of the evaluation [o]. Anne turns out to have conferred with a student colleague about some of the concepts in the evaluation form, such as 'productive skills' [o]. Anne mentions "*becoming calmer*", and "*completing the assignments*" as personal learning goals [o]. John emphasises Anne's own responsibility for learning [o].

Although Anne feels that she is guided well at home B [si], the approach seems to be inconsistent. For example, Anne claims to have met with Andrew less than the intended "once every two or three weeks" [mi; o]: maybe three times at most [si]. The actual number could not be traced. However, at least one progress evaluation was cancelled because Andrew was ill, and he also appeared to be very busy in general. His pager rings very often, even in meetings; and he always answers it [o]. This seems to disturb the continuity of the meetings with Anne [o]. In addition, although Andrew has mentioned Anne's learning style test outcome ('doer') on several occasions, he does not show any explicit connection with his guidance approach. Andrew seems to use a style where students have to work out for themselves what they want from their learning process and how they will achieve this [o]. At the end of the study, Andrew claims that Anne should be pressured more from now on to complete assignments [mi]. He claims that the assignments are a means and not an end [mi]. Anne has worked on a lot of things, and now it is time to fine-tune and relate (theory to practice) [mi; o]. However, if the assignments are not used during the process to acquire attainment targets but are postponed to a later phase in which students have already learnt a lot in practice, they are actually treated as an end rather than a means.

Although Anne should complete assignments, she claims to have been reassured not to worry about them during the progress evaluations [si]. According to Alan, Anne does not have to complete everything in writing; what she "*does*" is important [si; o]. Although Anne claims that working is the same as practising the assignments, there is much more to it (see description of 'WPL curriculum and integration measures'). On the other hand, Anne was observed being told by Andrew and Alan to use a plan of approach and work on the assignments from the start [o].

Throughout WPL, Anne's own responsibility for learning is emphasised by Andrew and Alan, and also by John during the mid-term evaluation. Alan also tells her he expects

her to start working on the assignments at the end of the observation day. They have, however, not discussed learning at the start of the day [o]. Alan was observed instructing Anne rather than asking or telling her why things are done in a particular way [o]. Perhaps during the observation day, work pressure was too high to deviate from this approach. In addition, he did not appear supportive when Anne wanted to write a progress report. This may also have been caused by lack of time, although it might also have been due to Anne's lack of planning learning. Although Andrew thinks that at Maple everything can be discussed and students really have the opportunity to pay attention to learning [mi], Anne's other colleagues also appear to lack time to fill progress reports in properly. She does find the completed forms useful to show what she should improve and what has already been done well. Anne reads the completed forms and discusses them with the person who completed them if required [si].

Anne has asked both Andrew and Alan for further explanation of the assignments [mi; si; o] and has been reading in the assignment book [mi; si]. Alan has helped Anne make an alternative plan of approach for assignment completion [mi; si; o]. This plan is not based on which activities, regarding assignments, are done each week or day as is the case in the school's format. The alternative plan is based on what steps should be taken per assignment to complete it [si; da]. The reason that the original plan of approach does not work is because you need to practise for example for three days for a particular assignment and then have performance evaluated. However, when "*something comes in between*" [si], the approach is no longer feasible. In addition, Anne claims not to have met with Alan for six weeks because of holidays [o]. Alan gives lack of time as an explanation for Anne's delay: the first two or three weeks are an orientation regarding the way the work is done. Students also go to school for two weeks, so there is little time to complete assignments in the first ten weeks [o]. Time for learning is taken at home rather than during work time at home B [o; si]. In practice, however, Anne only had three half-days of school in the two-week school period [si]. She could have started the assignments in the remaining time.

Although teachers are supposed to guide the student in close cooperation with the mentors, Anne has not had any contact with her WPL teacher apart from the mid-term evaluation and the two-week school period [o; si]. No school feedback hour was scheduled within the school period.

Alan, Andrew and John's instructions and Anne's reading of the assignment book and receiving assignment explanation at home B point to transmission as a social interaction process. Anne has worked on assignment subjects, which indicates experience and activity, although this only concerns the practical aspects of the assignments.

#### *Outcome level*

Although Anne has not completed any assignments in writing yet, she has worked for them in practice [mi; o; si], and feels she has "*done everything*" so far [si]. She claims to

finally understand how the assignments should be dealt with. She has progressed regarding her personal learning goal of becoming calmer. Andrew also believes that Anne is now on the right track (at the end of the study) [mi]. The question remains whether Anne will really progress in terms of assignment completion from now on, or whether it will be further delayed.

#### *Internal acquisition*

Combining working and learning is hard, Alan thinks [o]. In addition, Anne had little or incorrect prior knowledge about assignment completion, learning goals and planning learning. She required more assignment explanation than the explanation at school or the collective explanation at home B. She also showed little motivation. On the other hand, Anne worried about assignment completion at first. At the end of the study, Anne appears to have been reading the assignment book and realised that assignments have a purpose. A constructive accommodation may therefore have started. Without Anne's mentor, model and teacher having urged her to take responsibility for her own learning, or Alan helping Anne out with new planning and explanation of the assignments, Anne's indifference regarding learning might have continued. Still, it is too soon to conclude that Anne will succeed regarding her learning. The process so far can be characterised rather as resistance.

#### 5.4.2.4 Process description of Knowledge of the organisation and work process

##### *Prior knowledge*

Because of her vacation job in advance of WPL and because of the four-week introduction (in another department), Anne already knew about the general way of working in different departments at home B when she started WPL at Maple. For example, she knew that you are supposed to show initiative during WPL. She was also told this at school. She has also learnt that different departments generally use the same material (such as incontinence material) for care and that other departments are larger than Maple [si]. In addition, she has had the opportunity to become familiar with the target group of demented residents [mi]. Still she reacts with "What was I able to do (when I started)?" when John asks her during the mid-term evaluation how she has progressed [o]. For attainment targets such as nutrition and fluid balance, it is important to know the specific resident. For example, it is important to know whether the resident has a problem swallowing. This knowledge Anne did not have when she started.

##### *Motivation, emotion and personality*

Anne is really content with having chosen to do WPL at home B and is very motivated for the work [si; mi; o]. She is very interested in the residents' health conditions [si; o] and thinks it is important to monitor these conditions. For example, she carries a little notebook to jot down observations for the residents' files (for example about skin conditions) [o]. She is also interested in medicine and wound care, even though it is not part of the curriculum for this phase [si; o]. She also likes the variety in shifts, because it

allows her to experience all kinds of activities and situations [si]. She likes care because “you mean a lot to people” [si]. She is alert and active when colleagues require help [o]. Anne does not panic easily [mi; o], even under high work pressure. However, Anne does not like it when work situations continue to be discussed during the breaks [si]. She also thinks the work is physically hard [si].

#### *Social interaction and learning environment*

During the introduction, students need to conduct interviews with employees from different disciplines in home B to get to know the organisation. Students work alongside their model and with other graduated colleagues during WPL [si]. Both Andrew and Alan discuss expectations and procedures regarding for example cooperation and deliberation with Anne during the first progress evaluation and the mid-term evaluation preparation [o]. Colleagues also talk about the work, during work [o] and during breaks [si]. Work-related subjects that were observed being talked about are residents’ health conditions [si; o], understaffing and workload, weekend shifts, the course, catering, and the scheduling of shifts [o]. Anne is present when graduated colleagues distribute medicine or carry out wound care activities [o; si]. Because of Anne’s interest in these subjects, she pays attention to them. She is also allowed to apply an astringent, protective ointment under close supervision [si; o] and to provide laxative with residents’ drinks [si; o]. Anne does not seem to have actively sought information documents or protocols about how B ‘works’. Because of her vacation job and participation in the work process as a w-b pathway student, she seems to have learnt a lot about home B just by doing the job and asking questions ad hoc. Observing, asking questions, reading files and evaluation booklets, making notes, trying out, imitation and working independently and together with colleagues were all applied in developing ‘knowledge of the organisation and work process’. The findings indicate that the full range of social interaction processes from perception to participation played a role.

The department head or main carer draws up the day schedule which is communicated to and discussed with all the carers present at the start of the shift [o]. Work is carried out on the basis of care lists [o; si]. Carers report incidents and particulars about residents’ health conditions in the residents’ files [si]. The carers from a subsequent shift are supposed to read these files [si]. At least twice a day, the carers confer about work progress and at the end of the day transfer to the next shift takes place [si]. Carers note mistakes in the evaluation notebook. When it concerns a recurring problem, the department head discusses it with the staff in a meeting [si]. Although work timetables are made centrally, carers may indicate what is most convenient for them [si; o]. Medical care (except for medicine distribution), preparation of meals, physiotherapy, haircutting, and part of the cleaning are examples of facilities available at home B, which are not provided by carers [o]. However, carers do work together with these disciplines. Aspects of planning, execution as well as evaluation are integrated in the carers’ jobs [o; si]. There are opportunities for contact, and the work includes different

types of tasks in terms of difficulty, repetitiveness and scope for organisation, implying a positive relation with learning (Huys & Hootegem, 2002).

#### *Outcome level*

Alan characterises Anne as a “*good employee*” [o] who is able to work independently. She has developed her own way of working, and feels that day shifts are a routine for her [si]. At the end of the study, she claims to be increasingly trusted with a variety of tasks not only directed to care-related activities but also for example to arrange appointments for residents with the physiotherapist [si]. She knows about how care is organised; for example about how mistakes are handled and how the work is planned. During the observation day and during the interview, Anne provides examples showing that she knows what consequences particular problems have for the rest of the work process [si; o]. For example, if a resident with diabetes has just had his injection and the kitchen assistant who is supposed to provide him with breakfast is very busy, carers should take care of his breakfast. Otherwise, the patient may become groggy, aggressive or even unconscious. Anne also knows how the interior and the care approach in home B will change in the new building. She is also able to explain the activities of an entire shift - and possible variants - by heart [si]. In addition, she has already learnt a little about medicine and wound care [si; o]. These findings imply that Anne has developed a reasonable to high amount of work process knowledge. Anne has, however, hardly shown that she has synthesised her knowledge with theoretical understanding because of a lack of assignment completion. Rather, she has generally concluded that school learning cannot be applied to practice.

#### *Internal acquisition*

From prior knowledge built up during the vacation job and the introduction, Anne has mainly gradually developed more knowledge about the organisation and work process at home B. Although this process can mainly be characterised as assimilation, there are also instances of accommodation and of reflection, when Anne realised that what she had learnt at school did not work in practice. However, application of theory in the sense of for example completing assignments or studying protocols has not played a role yet.

### 5.4.3 Summary of Anne’s case

Before the conclusions of Anne’s case are drawn, we present her background and the four learning processes in summary displays. From these displays, we can infer how Anne progressed and how different learning process elements as identified in the research model (see Figure 5.1) played a role. In Table 5.3, the background to Anne’s case is presented. Tables 5.4 to 5.7 show the summaries of the learning process descriptions for ‘personal basic care’, ‘interaction with residents and colleagues’, ‘learning to learn’ and ‘knowledge of the organisation and work process’.



Table 5.3: Anne's background display

<p><b>Anne (w-b pathway)</b></p>	<p>Female aged 18, with a junior general secondary education diploma. Left socio-cultural s-b pathway course because she hated school. Responded to w-b pathway vacancy at psychogeriatric nursing home B, pointed out by her mother.</p> <p>Spontaneous, direct, very lively, 'doer' ('accommodator': Kolb, 1984). Likes working at home B because she really likes interaction with people.</p>
<p>Learning environment - Training company</p>	<p>Home B is a psychogeriatric nursing home, accommodating more than 200 residents. Most residents suffer from senile dementia. Physical abilities are often also affected.</p> <p>Observation day shift starts at 7.30 a.m. and ends at 4.15 p.m. Carers start by having coffee and tea together and the main carer reading out the day schedule, for example about residents' appointments with the doctor, and assigning further responsibilities. They also read the evaluation booklet and the related resident files. Further activities are for example:</p> <ul style="list-style-type: none"> <li>• waking up, bathing and dressing residents (personal basic care)</li> <li>• providing residents with breakfast</li> <li>• making beds, and other small (domestic) tasks and discussing progress</li> <li>• helping residents with hot meal</li> </ul> <p>Especially during the morning, the workload may be high.</p> <p>Home B attempts to provide care that connects to the residents' home situations. This idea will be further developed in the upcoming new building. Care needs to be adjusted accordingly. Anne cares for eight residents of 'Maple' department, which consists of a tightly-knit care team. Anne really likes her colleagues.</p>
<p>- WPL curriculum and integration measures</p>	<p>Guidance: Andrew as WPL mentor (in personnel department and not as carer in Anne's department); Alan (and other graduated colleagues) as role model; John as WPL teacher. The model is assigned to teach the work; the mentor monitors the learning process.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- Four introductory weeks at home B; first part accompanying others and watching also to get to know the organisation; second part also working alongside others. Planned supernumerary until second week of WPL. Start in day shifts. Not allowed to administer medicine in this WPL phase; not allowed to accompany residents on their own outside the home as student or to replace (graduated) colleagues. Students also receive information booklet. W-b pathway students do not have study hours.</li> <li>- Second day of WPL: Short introductory interview, where the first progress evaluation is scheduled and Anne is told to think about her expectations and have some 'progress reports' (reflection about student's performance to be filled in by colleagues) finished.</li> <li>- After one week of WPL: first progress evaluation with Andrew and Alan. W-b students take (Kolb) learning style test. Progress is discussed using 'progress reports'. Progress evaluations should take place every two weeks on average.</li> <li>- After two weeks of WPL: collective assignment explanation.</li> <li>- Anne only has an assignment book, no workbook. At home B, she only needs to complete one subassignment per main assignment in writing; with every main assignment at least two progress reports should be completed.</li> <li>- After eight weeks of WPL: two-week school period; consists of only three-half days of school. No school feedback hour was scheduled.</li> <li>- After 12 weeks of WPL: mid-term evaluation, prepared one day before by Andrew in presence of Anne and Alan. During actual evaluation, Anne, Andrew and John are present.</li> </ul>

Table 5.4: Summary of Anne's Personal basic care process

*Prior knowledge, motivation, emotion and personality*

Anne's **prior knowledge is partly insufficient and partly incorrect** because of the difference in the practice situation at school and WPL practice. Anne is **highly motivated**, because personal basic care is her favourite work activity. She shows an **active attitude**, however she also experiences personal basic care as **physically hard**.

*Social interaction and learning environment*

From the start of the four-week introduction at home B, Anne is only allowed to accompany a role model and observe, being planned supernumerary until the second week of WPL. Gradually, she is allowed to participate more in bathing and dressing residents, and supervision by Alan and other colleagues decreases. Still, **cooperation among carers**, also when graduated, **is common**. After around four weeks of WPL, Anne discovers that everyone has their own way of working and that she also has the opportunity to develop her own way. Observation, listening, asking questions, reading care lists and files, making notes, trying out and imitation are interaction activities dominant in the first phase of WPL. **Social interaction** processes therefore **range from perception to imitation** in that phase. To develop her own way, **activity** is also involved as a social interaction process.

There does **not seem to be a lack of opportunity** to learn in terms of **work content, cooperation among colleagues**, and being allowed to ask questions. However, **time pressure** may have hindered the development of theoretical understanding. **Time pressure** and **physical workload** can be high also because of **residents' lack of ability to cooperate** physically or mentally. **Alan seems to instruct and correct** Anne rather than give explanations, possibly because of time pressure. In addition, Alan does not seem enthusiastic about Anne wanting to write a progress report on the observation day. On the other hand, **Anne does not show that she has planned her learning** for this day either. In terms of integration measures, Anne has not used the plan of approach and has not completed any of the personal basic care assignments yet. Personal basic care is not explicitly discussed in the mid-term evaluation.

*Internal acquisition and outcome level*

Anne first has to re-learn how to perform personal basic care in home B. From accompanying others and watching to working alongside them with gradually decreasing supervision, she develops more competence regarding personal basic care. Then she discovers that different colleagues might apply slightly different approaches, and that she herself could also develop her own way of working. **Both accommodation** (start and after four weeks) **and assimilation** (after start and after realisation of developing own way) appear to characterise this **internal acquisition process**. **Reflection** in the sense of afterthought about what was learnt at school and the differences in approach between colleagues was also part of this process. However, Anne has not taken the opportunity to thoroughly reflect on the difference between theory and practice by means of the assignments yet.

Anne has become able to work relatively independently and has developed her own way of working regarding this outcome. She appears to have reached **task (3)** outcome level. There are indications that theoretical understanding lags behind, for example because she has not completed any assignments in writing and because she does not know what protocols are and how they are applied.

Table 5.5: Summary of Anne's Interaction with residents and colleagues process

*Prior knowledge, motivation, emotion and personality*

Although Anne has become **familiar with the target group of demented residents** during her vacation job at home B, she does not have prior knowledge of Maple's residents specifically at the start of WPL. Her **liveliness** is a **problem** for both residents and colleagues. She can also be a little cheeky. In addition, she acts rather than confers with colleagues in the beginning. Nevertheless, she is **enthusiastic and cheerful** in interaction with both residents and colleagues.

*Social interaction and learning environment*

**Interaction skills** are perceived as **crucial** at home B. This receives specific attention in the first **progress evaluation**. Anne should make use of the **progress reports** to learn how to interact with colleagues. Although she does not like using them because colleagues complain about **lack of time** to complete them for her, the tips she receives this way are useful, also regarding interaction with residents. Anne receives feedback about her liveliness, and further learns to become calmer by minding residents reactions. She mentions it as a **personal learning goal** during the **mid-term evaluation**. According to her WPL teacher John, she could use Alan as an example.

Besides interacting with residents and colleagues as a normal part of her work, Anne further gets to know residents by observing them, reading their files and receiving feedback from colleagues, also from other disciplines. She has asked colleagues about whether they have graduated to find out what their responsibilities are. Besides **transmission** and **experience**, **activity** is an important **social interaction** process.

**Discussing work progress** during the morning and after lunch and **conferring** about further activities are **regular activities of a working day**. **Cooperation** among carers seems to occur **frequently** and **pleasantly**. This all seems to have contributed positively to Anne's learning how to interact with colleagues. Anne has not completed any assignments regarding interaction throughout the period of the study. She has not shown that she uses a plan of approach to improve her interaction skills either.

*Internal acquisition and outcome level*

In addition to controlling her extreme liveliness, Anne needed to adjust her interaction approach to specific resident needs. However, she did not have to completely transform into a calm, silent person to perform well. After having suppressed her liveliness to a sufficient level and having adjusted her interaction approach to specific resident needs, indicating **accommodation**, she appears to have learnt gradually how to treat residents respectfully and how to communicate with colleagues better by **assimilation**. This latter process is still ongoing, for example regarding providing feedback to colleagues.

Although Anne has not completed any of the assignments regarding interaction with residents and colleagues, it is the attainment target in which she has progressed the most of all learning outcomes. She feels she has really got to know the residents well. Anne has realised interaction with residents at **function (4)** level.

Although Anne has also learnt how to work together and confer with colleagues, providing feedback to colleagues still seems a little difficult for her. She has realised interaction with colleagues at the **task (3)** level.

Table 5.6: Summary of Anne's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Anne **significantly lacks prior knowledge**: planning learning and assignment completion is difficult for her. She also has a **rather lax attitude towards learning**. On the other hand, she **worries a lot about the assignments at first**. She also **thinks that assignments are required** to develop understanding of all the components of care. In addition, Anne thinks **WPL is organised well at home B**. A **high physical workload** resulting in lack of energy after a working day possibly also prevents her from completing the assignments. She eventually formulates the following **personal learning goals** for the **mid-term evaluation preparation**: assignment progress, dealing with feedback and becoming calmer.

*Social interaction and learning environment*

Anne's **own responsibility for learning** is pointed out throughout WPL, such as in the first **progress evaluation** by Andrew and Alan and in the **mid-term evaluation** by John. Although **Anne is carefully prepared for the mid-term evaluation** by Andrew, with Alan present, **in the actual evaluation John still takes the lead**. Throughout WPL, both Andrew and Alan have provided further explanation of the assignments even after home B's **collective assignment explanation**. **Alan has also helped** Anne to make an **alternative plan of approach**. Reading the assignment book, asking questions and receiving feedback point to **transmission** as the dominant **social interaction** process. Anne has also worked on assignment aspects in a practical sense as part of her job, pointing to **experience and activity**.

**Although Anne is satisfied with guidance**, the approach seems to be **inconsistent**. For example, Anne claims to have met with Andrew less than the intended 'once every two or three weeks'. In addition, although Andrew mentioned Anne's **learning style test** outcome ('doer') on several occasions, he **does not show an explicit connection with his guidance approach**. Anne also claims to have been **reassured about the assignments** during the progress evaluations. Andrew thinks the assignments are a means and not an end. However, if the assignments are postponed to a phase in which students have already learnt a lot in practice, they are actually treated as an end rather than a means. Alan thinks Anne does not have to complete everything in writing; what she "*does*" is important.

Anne's **colleagues appear to lack time to fill progress reports** in. She does find **the forms useful** for formative feedback. Still, learning during WPL is difficult to plan because 'things come in between'. In addition, Anne claims not to have met with Alan for six weeks because of holidays. Alan also thinks **lack of time is the cause of Anne's delay in assignment completion**. However, Anne could have used the free time within the school period to complete assignments. Although teachers are supposed to guide the student in close cooperation with the mentors, Anne has **not had any contact with her WPL teacher apart from the mid-term evaluation** and the school period. **No school feedback hour** was scheduled within the two-week school period.

*Internal acquisition and outcome level*

At the end of the study, Anne has progressed in respect of her personal learning goal regarding her liveliness. She also claims to understand how assignments should be completed, although she has not actually done so. Andrew thinks Anne is on the right track now. Possibly, a constructive accommodation has started because of Alan and Andrew's openly discussing the problem of assignment completion with Anne and their help with her learning. So far, however, the process can be characterised rather as **resistance**.

Table 5.7: Summary of Anne's Knowledge of the organisation and work process

*Prior knowledge, motivation, emotion and personality*

Because of her vacation job and the introduction, Anne has **prior knowledge of the general way of working at home B**. Still she reacts with "What was I able to do (when I started)?" when John asks her during the mid-term evaluation how she has progressed: "*nothing you learn at school can be applied in practice*". For attainment targets such as nutrition and fluid balance, it is important to know the specific resident. For example, this person may have a problem swallowing. This knowledge Anne did not have when she started.

Anne is **very motivated** for the job, shows an active attitude and does not panic easily. She also shows interest in medication and wound care, even though this is not yet part of her WPL curriculum. However, she does not like it when work situations are still discussed during the breaks, and thinks the **work is physically hard**.

*Social interaction and learning environment*

Students have the opportunity to get to know the organisation during the **introduction**. Students **work alongside** their model and with other graduated colleagues during WPL. In the **first progress evaluation** and in the **mid-term evaluation preparation**, expectations and procedures regarding for example cooperation and deliberation were discussed with Anne. During work and during breaks **colleagues talk about the work**. Work-related subjects that were observed being talked about are for example residents' health conditions and understaffing. When graduated colleagues distribute medicine or carry out wound care activities in Anne's presence, she pays attention because of her interest in these subjects. She is also allowed to apply an astringent, protective ointment under close supervision and to provide laxative with residents' drinks. The **division of work** seems to be **favourable** for learning, for example because aspects of planning, execution and evaluation are integrated in the carers' jobs.

Observing, asking questions, reading files and evaluation booklets, making notes, trying out, imitation and working independently and together with colleagues were all applied by Anne for developing 'knowledge of the organisation and work process'. She seems to have learnt a lot just by doing the job and asking questions ad hoc. These findings indicate that **the full range of social interaction processes** from **perception to participation** played a role.

*Internal acquisition and outcome level*

At the end of the study Anne is characterised as a **good employee** who is able to work independently, by Alan. She is able to talk elaborately about the organisation of care, home B as an organisation and different elements of the work process, also about elements for which she is not directly responsible. She is able to explain the activities of an entire day shift - and possible varying elements- by heart. In addition, she has also learnt a little about medicine and wound care. These findings imply that **Anne has developed a reasonable to high amount of work process knowledge**. Anne has, however, hardly shown that she has synthesised her knowledge with theoretical understanding because of a lack of assignment completion. Rather, she has generally concluded that school learning cannot be applied to practice.

From prior knowledge built up during the vacation job and the introduction, Anne has gradually developed more knowledge about the organisation and work process at home B. Although this process can probably mainly be characterised as **assimilation**, there are also some instances of **accommodation**, and of **reflection**, when Anne realised that what she had learnt at school did not work in practice.

#### 5.4.4 How can we describe Anne's WPL learning processes and related learning outcomes?

This research question has been answered in the sense of a more or less chronological, holistic description of Anne's development regarding four categories of WPL processes, starting with her background in terms of her character and learning environment. To draw conclusions about the meaning of the types of processes and about the influences, however, we need to focus on the elements of the research model. In Table 5.8, 1-4 we present the learning process elements in a format comparable to the research model format (Figure 5.1), showing which specific influences play which role (positive or negative), to which types of social interaction and internal acquisition this has led and what the related outcome is. Although we cannot draw causal conclusions based on the type of research applied in this study, this is how the influences appeared to work from the account as a whole.

Home B generally provides a beneficial learning environment in terms of social atmosphere among colleagues and the division of work. The workload is high, however, both physically and in terms of time pressure. The integration measures are not used as intended and home B's 'other' integration measure in the form of progress reports is perceived, on the one hand, as useful; however, on the other, colleagues lack time to complete them. Anne has a lax attitude towards planning learning and assignment completion. Nevertheless, she is an enthusiastic, cheerful - sometimes too lively - person who is highly motivated for the work and wants to obtain a diploma. These dual characteristics of the training company, the integration measures and Anne have had twofold effects on her WPL process. For example, Anne is motivated to learn regarding 'personal basic care'. And even though she lacked prior knowledge, she progressed satisfactorily regarding this outcome by accompanying others, observing and imitating them and being instructed by them, developing her own approach through a combination of accommodation and assimilation. Regarding 'learning to learn', however, lack of time negatively influenced the process, and although Anne was satisfied with guidance, it was observed to be inconsistent. Anne did not have school feedback hours and very little contact with her WPL teacher at all, consequently eliminating those opportunities to improve her learning. Andrew, Alan and John have pointed out Anne's responsibility regarding learning and she has received assignment explanation several times. This 'transmission' seems to have failed, however, and Anne has only worked on practical aspects of her assignments by doing the work, by experience and activity. Anne finds the plan of approach and the assignments difficult. Although she claims to be motivated to obtain a diploma, her 'learning to learn' attitude is lax. These influences have resulted in 'resistance' as the internal acquisition process. She has only progressed regarding her personal learning goal (becoming calmer). In combination with her lack of prior knowledge, her lack of motivation regarding learning

and the lack of availability and proper implementation of the integration measures did not provide a good basis for Anne’s WPL.

Anne’s unsatisfactory result regarding ‘learning to learn’ raises question marks regarding the other learning outcomes. Although Alan characterises Anne as a “*good employee*” at the end of the period studied, she has not completed any assignments so far, while students are meant to show mastery of the attainment targets by having completed the assignments. From the way in which Anne talks about home B as an organisation and about the relation between different elements of the work process, there appears to be potential for her to become a more critically reflective carer by reflection and assignment completion, if her learning attitude were more positive and if she were to receive stronger and more consistent guidance.

Table 5.8 1-4: Anne’s learning processes, influencing factors and related learning outcomes

1. Personal basic care

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content + social: cooperation among carers	- workload: experiences personal basic care as physically hard/ time pressure (Alan’s instruction and correction rather than explanation)	Perception, transmission, experience, imitation, activity	3: ‘task’ level
<b>Integration measures</b>				
<b>Learner</b>	+ motivation high + personality: active attitude (doer)	- lack of prior knowledge (although re-learnt)	Accommodation, some reflection, assimilation	

## 2. Interaction with residents and colleagues

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social: interaction skills are crucial (progress evaluation); frequent and pleasant cooperation among colleagues + division of work: regular work progress deliberation	- workload (time pressure), for example colleagues' lack of time for progress reports	Transmission, experience, activity	interaction with residents: 4: 'function' - interaction with colleagues: 3: 'task'
<b>Integration measures</b>	+ other: progress reports perceived as useful + personal learning goal: becoming calmer			
<b>Learner</b>	+ prior knowledge: familiar with target group (although not with Maple's residents specifically) + personality: enthusiastic and cheerful	- personality: liveliness	Accommodation and assimilation	

## 3. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>		- workload: high physical workload may cause lack of energy for assignments; lack of time	Transmission (failed?), some experience and activity (practical parts of assignments)	No assignment completion; however claims to understand them now. Has progressed regarding personal learning goal about becoming calmer.
<b>Integration measures</b>	+ other: progress reports	- does not use plan of approach (makes alternative plan with Alan's help) - difficulty of assignments - inconsistent guidance by mentor and model (even though Anne is satisfied); reassurance about assignments; hardly any contact with WPL teacher - lack of time within WPL curriculum - no school feedback hours (only 3 half-days of school in 2-week school period)		
<b>Learner</b>	+ general motivation and goals: wants to obtain a diploma + motivation: thinks assignments are necessary	- significant lack of prior knowledge - motivation: lax attitude towards learning (hates school); but worries about assignments too	Resistance (so far)	



4. Knowledge of the organisation and work process

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social/division of work: colleagues talk about work formally and informally + division of work favourable	- workload: physically hard	All processes from perception to participation	Characterised as good employee, who is able to work independently. Knows a lot about home B as an organisation, and about different elements of the work process. Has developed reasonable to high amount of work process knowledge. Has, however, hardly shown that she has synthesised her knowledge with theoretical understanding.
<b>Integration measures</b>	+ WPL curriculum: introductory weeks; working alongside model and other graduated colleagues + progress evaluation and mid-term evaluation preparation	- no assignments completed at all		
<b>Learner</b>	+ prior knowledge about general way of working (weekend job and introduction), however not of specific residents yet + motivation high		Assimilation, some accommodation and some reflection	

In the next Chapter, the other five Care cases (Bonnie, Claire, Dennis, Mary and Tonya) are summarised, after which cross-case conclusions are drawn.



## Chapter 6

### Care case studies results

#### 6.1 Introduction

In Chapter 5 (5.1 and 5.3) we explain how the case descriptions are structured and how these descriptions help to answer the research question. In Figure 5.2 the structure of the case descriptions is visualised. We have presented ‘Anne’s’ extensive case description (5.4) as an example of how the subsequent conclusions are based on the extensive description and present the other five extensive case descriptions on the accompanying CD-ROM. In this chapter, the summaries and conclusions of those five cases and the cross-case conclusions of all six Care cases are given. As a reminder we repeat the information about participants and nursing homes (Chapter 4) in Table 6.1. In section 6.7, we aim to answer the research questions about WPL learning processes and related learning outcomes and the differences between the s-b pathway and the w-b pathway by drawing cross-case conclusions. These cross-case conclusions are based on the summaries (5.4.3, 6.2.1, 6.3.1, 6.4.1, etc.) and conclusions per case (5.4.4, 6.2.2, 6.3.2, 6.4.2, etc.) of Anne (5.4) Bonnie (6.2), Claire (6.3), Dennis (6.4), Mary (6.5) and Tonya (6.6).

Table 6.1: (repetition of 4.1): *Participants and nursing homes*

Nursing home	S-b pathway	W-b pathway
Nursing home A	Student: Mary Mentor Grace Teacher Mona	Student: Dennis Mentor May
	Bonnie after transfer <sup>1</sup> Teacher Mona	
Nursing home B	Student: <i>Bonnie</i> Mentor <i>Andrew</i>	Student: Anne Mentor Andrew
Nursing homes C & D (different annexes of same home)	Student: Tonya Mentor Layla Teacher Joyce	Student: Claire Mentor Dora/Sookie (two)

#### 6.2 Bonnie's case

##### 6.2.1 Summary of Bonnie's case

Before the conclusions of Bonnie's case are drawn, we present her background and the four learning processes in summary displays. From these displays, we can infer how

<sup>1</sup> After some weeks, Bonnie appeared not to be able to cope with home B's residents. She therefore transferred to home A, which accommodates less dependent residents.

Bonnie progressed and how different learning process elements as identified in the research model played a role. In Table 6.2, the background to Bonnie's case is summarised. Tables 6.3 to 6.6 show the summaries of the learning process descriptions for 'personal basic care', 'interaction with residents and colleagues', 'learning to learn' and 'knowledge of the organisation and work process'.

Table 6.2: *Bonnie's background display*

<b>Bonnie (s-b pathway)</b>	<p>Female aged 17, who finished pre-vocational secondary education (Care) before starting with the Care course at level 3. Starts WPL in s-b pathway at psychogeriatric home B on the basis of the information day and because she lives nearby. However, because of communication problems both with residents and colleagues, she transfers to home A after around four weeks of WPL. Likes school because she believes you learn more in five days at school than in one day and because you can apply theory to practice.</p> <p>Very shy; after her transfer to home A, communication in group of colleagues remains problematic. Needs time to get used to new situations, 'dreamer' ('diverger' - Kolb, 1984). Likes care because she really likes helping people. Active attitude, however, does not easily take the initiative herself.</p>
(For further information about home B as a training company: see Anne's case - 5.4.3).	
- WPL curriculum and integration measures; home B	<p>Guidance: Andrew (like Anne) as mentor (in personnel department and not as carer in Bonnie's department), Myrna as role model (goes on holiday after one week). Mona: WPL teacher. Bonnie is satisfied with guidance at home B.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- One week in advance of WPL: WPL preparatory lesson at school about planning learning, the workbook, general procedure regarding assignments and the schedule of learning activities.</li> <li>- One week in advance of WPL: collective introductory meeting regarding home B's history, mission and the organisation, including guided tour. Students receive information booklet.</li> </ul> <p>S-b pathway students remain supernumerary. They have one study hour a day (4 per week). Students are not allowed to administer medication or accompany residents outside the home; students are not allowed to replace (graduated) colleagues.</p> <ul style="list-style-type: none"> <li>- One day after start of WPL: individual introductory talk with Andrew and Myrna about plan of approach and progress reports. Bonnie takes learning style test ('dreamer').</li> <li>- After two weeks of WPL: first progress evaluation cancelled because Andrew is ill.</li> <li>- After two weeks of WPL: collective assignment explanation.</li> <li>- After two weeks of WPL: first school feedback hour with Mona. Bonnie reports that she is doing OK at home B.</li> <li>- After two-and-a-half weeks of WPL: 10 days of vacation.</li> <li>- After one month of WPL: WPL agreement between Bonnie and home B is ended in a meeting in the presence of Mona. No mid-term evaluation.</li> </ul>

Table 6.2: *Bonnie's background display (Continued)*

<p>- Training company; home A</p>	<p>Home A is a home for the elderly upgrading to nursing home status at time of study, accommodating more than 300 residents. Residents requiring extra care become part of client group because of new status. However, Bonnie's fixed group are still more independent and better able to cooperate than in home B. Residents react positively to students.</p> <p>There are two types of shifts in home A. Observation day shift starts at 8 a.m. and ends at 4.45 p.m. The other shift also starts at 8 a.m. but ends at 6 p.m. with a longer lunch break. Carers start by having coffee and tea together, the department head reads aloud the day schedule. The schedule is written on the whiteboard in terms of (extra) tasks such as 'take to physiotherapist' or 'hair appointment' and name of resident. Care lists are handed out; students are assigned to carers other than their model in case this is required for their assignments. Further activities are:</p> <ul style="list-style-type: none"> <li>• waking up, bathing and dressing residents (personal basic care); possibly helping residents with breakfast</li> <li>• small domestic tasks such as doing residents' dishes and making the beds</li> <li>• updating resident files</li> <li>• discussing work progress</li> </ul> <p>Bonnie feels days at home A are busier than at home B, because of more domestic tasks. Care also becomes harder because of the upgrade to nursing home; and administration becomes more complex and intensive.</p> <p>Home A aims to be a 'friendly, cosy and caring' humanistic home. Residents are supposed to be central and have relatively large, private apartments within home A. Bonnie's department Acacia accommodates around 90 residents, and around 13 full-time and 7 part-time carers work there. Bonnie really likes it at home A.</p>
<p>- WPL curriculum and integration measures; Home A</p>	<p>Guidance: Zoë as mentor (also a part-time carer in Bonnie's department), Cathy as model. Mona as WPL teacher. Cathy checks assignments before Zoë reviews them. Zoë thinks it is very important that students have a pleasant WPL period. Communication with colleagues and assertiveness has priority for Bonnie; assignment completion is less important (suggested by Mona).</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- Four study hours (in a row) a week. Students are not allowed to administer medication.</li> <li>- After eight weeks of WPL: second school feedback hour with Mona.</li> <li>- Three weeks after transfer to home A: first progress evaluation with Zoë. Zoë fills out progress evaluation form<sup>2</sup> to help Bonnie start on personal learning goals. Bonnie should work on three personal learning goals per week and continually think of new ones. A plan of approach should be discussed with Cathy. Information booklets are being rewritten because of the status upgrade; Bonnie is shown an old one.</li> <li>- After ten weeks of WPL: final evaluation with Zoë and Mona.</li> </ul>

<sup>2</sup> Progress evaluation forms at home A: First, students need to formulate at least three personal learning goals. Then it is noted how students plan to reach these goals through learning. The form ends with a conclusion.

Table 6.3: Summary of Bonnie's Personal basic care process

*Prior knowledge; motivation, emotion and personality*

Bonnie has **difficulties performing personal basic care to real residents** because of the difference with the practice situation at school. She was not taught about 'PDL' as an alternative to 'ADL' (see 5.4.2.1). In addition, she has some **hesitation** regarding **bathing male residents**. A **lack of response from residents and her inability to communicate with colleagues** do not help either. Consequently, Bonnie **significantly lacks prior knowledge and experience** when she starts WPL in home B. After only two-and-a-half weeks at home B she has a **ten-day holiday**; possibly causing her to **have to start all over again**. When she transfers to home A, she still needs to work under the close supervision of Cathy, and needs to be stimulated to take the initiative. However, she claims to like care.

*Social interaction and learning environment*

At home A, Bonnie accompanies Cathy to learn how to perform personal basic care, by observing, imitating and trying out. Cathy serves as an example for approaching residents. Bonnie uses the care list and Cathy provides instructions. Bonnie knows that she needs to get over her hesitation for example regarding bathing male residents, although she still finds it difficult. **Zoë and Cathy help Bonnie** formulate personal learning goals in this respect. Zoë also tells Bonnie to listen to the day schedule being read. **Cathy often lets Bonnie practise** the difficult skills, such as putting on support stockings. **Cathy also extensively discusses the personal basic care subassignment** with Bonnie before it is approved. Bonnie ultimately works a little more independently. **Perception, transmission, experience and imitation** are the main related **social interaction** processes, complemented with **activity** in the final stage.

Home A provides the **work content** that is required for Bonnie to practise the difficult skills, within a **pleasant social atmosphere** of responsive residents. **Time pressure** does **not appear to be very high**, implying **sufficient time** for Cathy to **show and instruct** and for Bonnie to try out. However, Bonnie seems to fear the prospect of home A becoming more comparable to home B in terms of the residents' health conditions.

*Internal acquisition and outcome level*

Bonnie's lack of progress in home B, her hesitation and her difficulties with communicating them which led to her leaving, are indicators of **resistance**. However, with the help of Andrew and Mona these difficulties are openly expressed and further dealt with through the help of Zoë and Cathy at home A. It seems likely that **constructive accommodation** has started for Bonnie to deal more positively with performing personal basic care, having become able to bathe male residents and to put on support stockings, for example. The following phase of gradually improving in bathing and dressing residents by accompanying Cathy and practising over and over again can be characterised as **assimilation**.

Although Bonnie claims to be able to provide personal basic care to some residents independently already, she has not yet been observed being really confident and had not developed a routine by the end of the study. She is advised to continue the next WPL stage at home A to avoid having to get used to a new situation again. According to Zoë and Cathy, however, Bonnie is able to carry out the care operations correctly. She also completed the 'personal basic care' subassignment, although only after several attempts. She has developed this target to the level of **professional activity (2)**.

Table 6.4: Summary of Bonnie's Interaction with residents and colleagues process

*Prior knowledge; motivation, emotion and personality*

Despite having followed an assertiveness course in the past and practice with interaction role plays at school, Bonnie is **very shy**. She is **really concerned about what others think of her**. She has **significant difficulties with communicating with** home B's residents. Regarding **communication with colleagues**, her **prior knowledge is also insufficient**. These problems cause her to leave home B. **Becoming able to interact with different target groups** becomes a **personal learning goal** at home A. **Communication with colleagues also becomes her personal learning goal. Her problems in this respect strongly influence her WPL**. However, in smaller groups of colleagues Bonnie is observed chatting pleasantly. In home A, residents are able to respond. Bonnie therefore finds **interaction with the residents at home A much more enjoyable**. She is **friendly** to both residents and colleagues.

*Social interaction and learning environment*

In the first **school feedback hour**, Bonnie's **difficulties at home B do not emerge**, even though Mona had advised Bonnie beforehand to follow WPL in a home for the elderly rather than a nursing home for this reason. After the closing meeting at home B, **Mona** concludes that interaction with colleagues is the most important skill for Bonnie to develop, implying less priority for assignment completion. Bonnie learns how to communicate with home A's residents by talking to colleagues, accompanying **Cathy and viewing her as an example**. **Social interaction** processes related to interaction with residents are **perception, transmission, imitation and experience; and also activity** towards the end.

**Work content** provides **ample opportunity to interact with residents**. In addition, communication with residents is pleasant. **Workload** in terms of time **also appears to allow some chatting** with residents while providing care.

To realise her **personal learning goals** regarding interaction with colleagues, **Zoë and Cathy explicitly guide Bonnie** and assist her in formulating plans of approach to realise the goals, for example in the first **progress evaluation**. Eventually, Bonnie participates in conversations a little more. In the **final evaluation**, both **Mona and Zoë still urge Bonnie to keep working on her interaction skills and assertiveness**. **Perception, transmission and experience** are related **social interaction processes**.

Although carers often help a resident on their own contrary to the situation at home B, there is **a lot of consultation among carers** at home A. **The social atmosphere among colleagues appears pleasant**. Carers are expected to **show an interest in their colleagues**. Carers also have **breaks together**. As observed, there is some **time for chatting**.

*Internal acquisition and outcome level*

**Resistance** was turned into **accommodation** because of the expression of and confrontation with Bonnie's communication problems with residents in home B and colleagues in both homes. Bonnie gradually improved in chatting with residents in home A, implying **assimilation**. Regarding interaction with colleagues Bonnie has not progressed convincingly.

Although she has improved a lot, especially regarding awareness, Bonnie does not seem to have progressed beyond **'professional activity' (2)** level for interaction with residents and **'care operations' (1)** for interaction with colleagues. Bonnie has **not completed any assignments** regarding these targets. Only with significant growth regarding communication with colleagues is a career in Care an option for her.

Table 6.5: Summary of Bonnie's Learning to learn process

*Prior knowledge; motivation, emotion and personality*

Bonnie's **prior knowledge is not sufficient**; and, although she claims to like school, her initial **attitude to learning is not beneficial** either. For example, Bonnie **does not have her plan of approach** finished before WPL starts, and is observed not paying attention during the WPL preparation. According to home B's learning style test, she is a 'dreamer'; and she should be more reflective. However, **school feedback hours are a social event** rather than a useful reflection meeting for her, and she does **not hand in the related reports** in time. She finds **assignments very difficult**, and does **not really see their use**. Bonnie regrets having spent part of WPL at home B.

Bonnie **likes being a student** in home A and seems **more motivated** to work on her learning process there. She formulates **personal learning goals** concerning **bathing male residents and interaction**. She is also **determined to complete two subassignments** to have at least something finished. However, the long working days do make her tired.

*Social interaction and learning environment*

Bonnie has had the **opportunity to work on the plan of approach and ask questions in several preparatory lessons** at school. Both **at school and at home B assignments are explained**. Mona indicates that she will **remain available for support** throughout WPL. Bonnie has not made much use of these opportunities, however.

In the **first school feedback hour**, Bonnie reports that she is doing OK at home B, that she needs and receives feedback and that she is already participating in all kinds of tasks. However, she also expresses disappointment regarding home B's residents' inability to respond, to which Mona only reacts that it depends on the department. All students think theory and practice are very different. It takes some time before the students really start discussing mutual issues. Less than two weeks later Bonnie leaves home B. Bonnie is **satisfied with the guidance at home B**, even though **contradictions** in the approach are observed. There is **even less discussion** in the **second school feedback hour** six weeks later.

The **closing meeting at home B has replaced** Bonnie's **mid-term evaluation**. Mona has concluded that **Bonnie needs to work on her communication skills** and give **little priority to assignment completion** on the basis of this meeting.

In the first **progress evaluation** at home A, Zoë explains the assignment procedure, tells Bonnie to communicate possible difficulties and uses a **progress report** to help Bonnie start achieving her personal learning goals. **Bonnie should think of new personal learning goals** (mainly regarding communication) as soon as she has achieved the former ones. **Cathy also assists** in formulating plans of approach for realising the goals. The **subassignments Bonnie hands in at home A need repeated revision**, with **Cathy's help** before they are passed. For example, Bonnie initially **forgets to include the self-evaluation forms**, even though **Mona had pointed these out** in the **preparatory lesson**. Bonnie **does not seem to have used the workbook in a structured, anticipative way**. **Bonnie and Mona have contact** during WPL in the **school feedback hours, the home B closing meeting, a telephone call when Bonnie started at home A, and the final evaluation**. In the final evaluation Bonnie is still advised to seek help at school regarding learning to learn. Although only assignments are graded and the WPL period as such is not, Mona and Zoë tell Bonnie she has 'passed' WPL when she asks them about it. Especially **transmission** and some **experience** are related **social interaction** processes.

**Physical workload may hinder** Bonnie in completing assignments after a working day, while lack of time at work does not appear to be an issue in Bonnie's department. S-b pathway students also have **four hours of study time** per week. **Zoë seems to invest a lot of effort in guiding Bonnie** and **enjoys** this process. Bonnie and Mona both think the **guidance at home A is good**.

*Internal acquisition and outcome level*

**Resistance** seems to characterise at least the first part of WPL. Although Bonnie realised a large number of personal learning subgoals and completed two subassignments, she still has a long way to go. For example, the school feedback hour reports she eventually handed in have been completed in a minimal way. We cannot therefore conclude that a constructive internal acquisition has followed within the studied period. Mona thinks, however, that Bonnie will be able to complete assignments in the next WPL stage.



Table 6.6: Summary of Bonnie's Knowledge of the organisation and work process

*Prior knowledge; motivation, emotion and personality*

Bonnie feels: "**I couldn't do anything when I started!**". She generally experiences practice as very different from theory. There are examples of the school being behind in material and technology, such as in the case of the modern lifting devices at nursing homes that Bonnie did not learn anything about at school. She also finds 'planning of care' very difficult; at school she could not concentrate on this subject because of her hectic class. She is **very wary** at home B, making Andrew wonder whether she is really motivated. Bonnie's **expectations** regarding home B are **incorrect**.

Her **expectations** based on volunteer work in a home for the elderly and the information session at school **did not really differ from practice at home A**. She finds out home A's motto ('friendly, cosy and caring') by looking up their website. She is observed **showing enjoyment at work, and curiosity** and is **always on time and keeps to appointments** according to Zoë. Bonnie **needs time to get used** to new situations and has **difficulty with taking the initiative**. In addition, she does not like the larger proportion of cleaning-up in home A.

*Social interaction and learning environment*

Home B has a collective introduction and a student information booklet. Bonnie also went to an information day at home B before she selected it as a training company. Carers also confer about the work on a daily basis. Andrew and Myrna provide feedback about Bonnie's performance.

Home A has **no collective introduction** for students and **information booklets are being rewritten**. Bonnie therefore mainly learns about home A from the internet information, accompanying Cathy and talking with Zoë. **Work procedures and work progress are also discussed together on a daily basis**. During work, **colleagues talk about the residents' health conditions and related care activities**. Bonnie sometimes asks questions about how things work. **Perception and transmission** are the **main social interaction processes**, complemented with some **experience, imitation and activity**.

Bonnie finds the **organisation** of the work a **little chaotic** because of the upgrade to nursing home. For example, care protocols are being adjusted. On the other hand, she does **not feel that carers need to hurry** to finish the work and **a lot of consultation and fine-tuning** takes place **among colleagues**. There is a division of responsibilities between the department head, her replacement, the WPL mentor and the (other) carers. **Planning and evaluation is thus at least partly shared**. Although **top-down communication should be improved** according to Zoë, **division of work seems to be balanced**. However, Bonnie does not seem to be **responsible for any planning or evaluation of care** (except for personal basic care preparation). Although Bonnie cannot look into the protocols now and she does not receive the latest student information booklet, her learning process does not seem to be directly influenced by the status upgrade. Bonnie reports that she finds it difficult that two residents (not from her own group) have passed away during her WPL. Her colleagues does not seem to have discussed this with her and during the school feedback hour her classmates are distracted from her account.

*Internal acquisition and outcome level*

From working in home B, Bonnie has mainly learnt that she is not able to work with demented residents. She first **resisted** this idea, showing for example in her report that she was 'doing OK' at the first school feedback hour. With the help of Andrew she found out that she was not suited to work at home B, implying **accommodation**. However, although Bonnie has difficulty with residents who are very nursing-dependent in terms of response, she does find out that she prefers care to domestic tasks.

Bonnie has learnt a few things about working at home A, such as how the status upgrade influences particular aspects of work. In the school feedback hour, she refers to home A (as previously to home B) as 'our' nursing home, implying a sense of identification with this organisation. According to Zoë, Bonnie also controls some planning of care aspects, regarding preparation of tasks. Although Bonnie is able to describe her activities during a working day, however, she is not very elaborate and does not show that she knows what consequences particular problems or circumstances in her activities have for the rest of the work process. She also knows little to nothing about other departments at home A. She has hardly applied theory to practice either, having completed only the two easiest subassignments. She still requires significant growth to become a good employee. These findings imply that **Bonnie has not developed much work process knowledge**. She has gradually learnt a little more about home A by **assimilation**.

### 6.2.2 How can we describe Bonnie's WPL learning processes and related learning outcomes?

Analogous to the conclusions in Anne's case (5.4.4), we present the learning process elements in a format comparable to the research model (Figure 5.1), showing which specific influences play what role (positive or negative), to which types of social interaction and internal acquisition this has led, and what the related outcome is. This is shown in Table 6.7, 1-4.

While home B did not provide a good learning environment for Bonnie, home A generally provides a beneficial learning environment in terms of work content regarding most learning processes and there is time for demonstration and instruction, communication with residents and colleagues, and for discussing learning. Only the physical workload is experienced as high. The integration measures are not applied as intended throughout WPL: the school feedback hours are for example viewed as a social event rather than as an opportunity for reflection, and Bonnie does not use the workbook. However, guidance by Zoë and Cathy at home A is intensive, which helps motivate Bonnie more for her learning process. She was already motivated for providing care, nevertheless her initial learning attitude was not positive and she lacked prior knowledge regarding all learning processes. In addition, her shyness was, and still can be, very obstructive. This means that learning progress has been variable, depending on the category of learning outcome and has not been altogether satisfactorily. Regarding 'interaction with residents and colleagues', for example, the pleasant social atmosphere at home A, among residents as well as colleagues, is a great relief for Bonnie. Time is available for chatting with residents, which Bonnie finds enjoyable. After having been confronted with her communication problems at home B with the help of Mona, Bonnie progresses by assimilation regarding interaction with residents. Because of her shyness, however, communication with colleagues remains problematic despite a significant amount of guidance by Zoë and Cathy. She keeps hesitating in her communication with colleagues, especially in a larger group. Consequently, although Bonnie has developed more awareness and insight into her communication problem, she has not really progressed much regarding 'interaction with colleagues' itself.

Resistance consequently dominates the first part of Bonnie's WPL in terms of internal acquisition. After the transfer to home A she appears more motivated for 'learning to learn' and as a result of Mona's suggestions and Zoë and Cathy's strong guidance, she confronted her problems and starts dealing with them, indicating accommodation, after which she develops more positively by assimilation. She still finds the assignments very difficult, however, and the physical workload at home A may cost Bonnie too much energy to have something left for making assignments after a working day. Still, Bonnie is determined to complete at least a couple of assignments in home A, and Zoë and Cathy help her with this ambition. Assignment completion does not have priority, however:

Bonnie is supposed to pay more attention to her interaction skills. Although she has thus progressed regarding her personal learning goals, her assignment completion and school feedback hour report completion are only meagre. Transmission, imitation and experience are important social interaction processes until the final period of her WPL, and the 'higher' social interaction processes hardly occur because Bonnie is barely trusted to work independently yet.

Although Mona thinks Bonnie will be able to complete assignments satisfactorily in the next WPL period, she has not shown convincing proof of this. She is certainly not there yet at the end of the period of the study. She has mainly learnt about what it means to be a carer in a difficult context at home B, and has developed more self-esteem at home A.

Table 6.7, 1-4: *Bonnie's learning processes, influencing factors and related learning outcomes*

1. Personal basic care

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content and social environment (home A) + workload: time for demonstration and instruction at home A	- work content: lack of residents' response at home B	Perception, transmission, experience and imitation; also activity towards end	2: 'professional activity' level
<b>Integration measures</b>	+ guidance (Cathy and Zoë) at home A	- ten-day vacation in first part of WPL at home B		
<b>Learner</b>	+ motivation: likes care	- lack of prior knowledge - personality: hesitation bathing male residents - personality: shyness (lack of communication with colleagues, also in home A)	Resistance, accommodation, assimilation	

## 2. Interaction with residents and colleagues

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content; also residents' response (home A) + social: pleasant atmosphere among colleagues; much consultation + workload: time for chatting with residents and colleagues	- work content: lack of residents' response at home B	With residents: perception, transmission, imitation, experience; also activity towards end  With colleagues: perception, transmission, experience	With residents: 2: 'professional activity' level  With colleagues: 1: 'care operations' level
<b>Integration measures</b>	+ personal learning goals: becoming able to interact with different target groups; communication with colleagues + Mona's guidance (regarding transfer to home A and focus on interaction) + Zoë and Cathy's guidance at home A, including progress evaluations	- first school feedback hour: communication difficulties do not emerge		
<b>Learner</b>	+ motivation: finds interaction enjoyable (with residents at home A) + personality: friendly	- personality: shyness - lack of prior knowledge	With residents: resistance, accommodation, assimilation  With colleagues: resistance, accommodation? (no convincing progress)	

## 3. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ workload: enough time to discuss learning (home A)	- physical workload (very tired after a working day) may cause lack of energy for assignments	Transmission and some experience	Not able to plan learning. Meagre assignment completion. Minimal completion of school feedback hour reports. Did realise personal learning goals.
<b>Integration measures</b>	+ Zoë and Cathy's guidance + progress evaluation at home A + personal learning goals: bathing male residents and interaction; continuous consideration of personal learning goals (mainly regarding communication)	- does not use plan of approach or workbook - contradictions in guidance at home B (although Bonnie is satisfied) - school feedback hours viewed as social event; does not hand in related reports in time - difficulty of assignments - makes less use of Mona's guidance than offered		
<b>Learner</b>	+ motivation: likes being a student in home A; more motivation for learning in home A; determined to complete two subassignments	- insufficient prior knowledge - motivation: initial attitude towards learning	Resistance	

4. Knowledge of the organisation and work process

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content/social: daily collective consultation on work, also informally (home A)	- division of work: Bonnie not responsible for any planning or evaluation of care	Perception, transmission, some experience and imitation and activity	Has found out that she is not suited to work with psychogeriatric residents; however she does like care. Identifies with home A and has gained some knowledge about it. Controls some 'planning of care' aspects. Still requires significant growth, however, and has not developed much work process knowledge
<b>Integration measures</b>		- other: no collective introduction at home A; no up-to-date information booklet available		
<b>Learner</b>	+ prior knowledge: expectations regarding home A in agreement with reality + motivation: enjoyment in work at home A + personality: curiosity, on time and sticks to appointments (in home A)	- insufficient/incorrect prior knowledge of home B - personality: very wary at home B, has difficulty with taking the initiative, needs time to get used to new situations	Resistance, accommodation, assimilation	

6.3 Claire's case

6.3.1 Summary of Claire's case

Before the conclusions of Claire's case are drawn, we present her background and the four learning processes in summary displays. From these displays, we can infer how Claire progressed and how different learning process elements as identified in the research model played a role. In Table 6.8, the background to Claire's case is summarised. Tables 6.9 to 6.12 show the summaries of the learning process descriptions for 'personal basic care', 'interaction with residents and colleagues', 'learning to learn' and 'knowledge of the organisation and work process'.

Table 6.8: *Claire's background display*

<p><b>Claire (w-b pathway)</b></p>	<p>Female aged 19. Already graduated at level 2. Originally wanted to be a hairdresser; however, thought work location was too far from home. Started care in s-b pathway in former home and was asked to continue in w-b pathway. Started level 3 in home D after graduation. Thinks level 3 <i>"is much more interesting"</i> than level 2. Has had a weekend job since the start of the course until the start of WPL. Does not really like school; thinks you learn more in practice.</p> <p>Has exemptions for:</p> <ul style="list-style-type: none"> <li>- Domestic care</li> <li>- Interaction with residents and colleagues;</li> <li>- Signal and report, and assessing the self-care possibilities of residents (2 subassignments in total) of 'planning of care' cluster</li> <li>- Basic care: sleep and waking balance and making the bed</li> <li>- Basic care: mobility</li> </ul> <p>Close-mouthed, insecure, exaggerated sense of hygiene; 'little of everything' according to learning style test. Shown to be motivated for care. Interested in learning new things. Despite insecurity, does not want to be planned supernumerary for more than two weeks at the start of WPL because of prior experience.</p>
<p>Learning environment</p> <p>- Training company</p>	<p>Home D is a home for the elderly, accommodating more than 100 residents. It also accommodates handicapped and psychogeriatric residents. However, most of Claire's residents are relatively independent.</p> <p>Observation day shift starts at 7 a.m. and ends at 3.30 p.m. Care activities are for example:</p> <ul style="list-style-type: none"> <li>• personal basic care, support with breakfast (in apartments), cleaning up and sorting laundry; checking up on residents who were cared for before 8 a.m.</li> <li>• half-hour morning break, of which 15 minutes in department office; particularities meeting with all employees of department</li> <li>• conferring with department nurse and colleagues</li> <li>• providing residents with hot meal (around noon, in apartments)</li> <li>• preparing the tea round. One carer serves tea while another carries out domestic chores (washing dishes; helping residents to toilet).</li> </ul> <p>Claire needs to continue working sometimes; during the observation day, time pressure increases in the morning and drops again later on. The work is more individualistic than in a nursing home, where usually also more ergonomically sound facilities are available.</p> <p>Home D aims to provide living and care in the way residents wish it to be. In the near future, care will be on a smaller scale and demand-led, which will be reflected in the new buildings of homes C and D. Residents, however, do not seem to feel like moving.</p> <p>Claire is appointed to Pine department, where she cares for eight residents during the observation day. Team of around 15 colleagues consists of 'marked personalities'; however, Claire likes her colleagues. Student-friendly climate in general.</p>

Table 6.8: *Claire's background display (Continued)*

<p>- WPL curriculum and integration measures</p>	<p>Guidance: Dora and Sookie (do not work as carers in the department) share WPL mentor job. Iris starts as role model; after six weeks Eve returns from maternity leave and takes over. Lisa as WPL coordinator of home D (and C). Fiona is Claire's WPL teacher.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- Four introduction weeks at home C and D of accompanying others and watching and being planned supernumerary until third week of WPL. Also planned supernumerary now and then to work on learning process. Not allowed to provide medication in this phase.</li> <li>- First day of WPL: collective introduction at home C<sup>3</sup> from WPL coordinator (Lisa).</li> <li>- Afternoon of first day: individual introduction with Dora at home D. Claire is informed about home D's (alternative) workbook and the reflection notebook and told to finish the plan of approach in two weeks. Home D's workbook provides information about vision and structure of home D as well as WPL responsibilities, learning activities and evaluation. Progress evaluations should take place every four weeks.</li> <li>- After two weeks of WPL: first progress evaluation. Discussion of some unpleasant incidents with residents and learning style test. Claire forgets to bring her plan of approach. Progress is discussed using 'reflections' on what was learnt, how it was learnt and how the result will be applied. This should be related to assignments or personal learning goals. They should be written at least three out of six workdays.</li> <li>- After eight weeks of WPL: two-week school period; only consisted of three half days of school. No school feedback hour was scheduled.</li> <li>- After 23 weeks of WPL: mid-term evaluation (outside of study period, however included in data-collection, and mentor-interview directly afterwards).</li> </ul>
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<sup>3</sup> Home C and home D are both involved in this study. They have merged but still have separate locations.

Table 6.9: Summary of Claire's Personal basic care process

*Prior knowledge, motivation, emotion and personality*

Personal basic care is one of Claire's exemptions; she does not have to complete the related subassignment. Claire's **prior knowledge is sufficient** therefore at the start of WPL. Providing personal basic care is Claire's **favourite activity**, because of the personal contact with residents. **Bathing male residents** was a **personal learning goal** in the **introductory period**, because of an unpleasant experience in her former nursing home. It did not take her much effort to relearn. Claire **feels very responsible** for her fixed group of residents, which seems to give her a threshold for asking others to help her out when she is short of time. Claire appears to work **precisely** and seems to have an **exaggerated sense of hygiene**.

*Social interaction and learning environment*

In the second period of the introduction, Claire starts accompanying others at her Pine department. She is planned supernumerary until the third week of WPL, despite her prior experience, to have the opportunity to compare her own preferred way of working with that of others and ask questions. Colleagues have provided feedback about working ergonomically, and Claire has compared the hygiene standards of colleagues with her own. Claire reports that she has **not worked with her model(s) much**, although she accompanied Iris (observing, trying out and imitation) to relearn bathing male residents. Her mentors have also worked along with her regularly throughout WPL. **Perception, some transmission, experience and imitation as social interaction processes** are involved in the first part of WPL. After the first couple of weeks **activity and participation** are mainly involved.

**Most residents** at home D **are able to cooperate** or carry out parts of basic care themselves. However, **they may also be resistant**. Culture needs to shift from supply-led to demand-led concurrently with the reorganisation, which is not always reflected in the carers' approach yet.

Personal basic care is usually provided by carers **individually**. **Colleagues or Claire's model do not stop by** during the observation day, except for asking her to respond to a pager or to ask an informative question. Claire **does not** go to colleagues to **ask questions** during this day about providing personal basic care either. However, Claire does report that she discussed with colleagues why they perform care in a particular way. Because Claire does not have her own key to residents' apartments, she **regularly needs to walk back and forth** between the key-carrier and apartments. In addition, **she has a pager** and might therefore also be called upon for extra care, **which costs time**. When **time pressure increased during the observation day**, a **fellow** (third-year) **student** who had finished her work in time **did help Claire out** after she had asked her to.

*Internal acquisition and outcome level*

Continuing from level 2, Claire has re-learned how to bathe male residents and how to provide personal basic care adapted to Pine department's residents, under the conditions of an individualistic work culture and sometimes demanding terms physically and in terms of time pressure. **Assimilation** seems to be the **internal acquisition process** involved. Claire's mentors think that Claire correctly performs the basic activities in a systematic way and that she applies theory to practice. Her routine and independence indicate that she has realised this attainment target at **'function' level (4)**. Nevertheless, she might have to be stimulated to reflect more on her own approach.



Table 6.10: Summary of Claire's Interaction with residents and colleagues process

*Prior knowledge, motivation, emotion and personality*

Despite Claire's exemptions for interaction with residents and with colleagues, she **still has something to learn** at the start of WPL. She still finds it **difficult to talk** to residents while providing personal basic care. She also has **difficulty dealing with unfriendly residents**. In addition, she is **not assertive enough** regarding **interaction with colleagues**. She thinks she cannot comment on their performance, because they are more experienced and have a diploma. Claire **likes her colleagues** and also **likes interaction with the residents**.

*Social interaction and learning environment*

In the first progress evaluation Dora and Claire discuss some unpleasant events with residents reacting in an unfriendly way to Claire's performance. Claire should discuss these incidents with the residents and not take it personally, and reflect on it, according to Dora. By doing the job, reading the residents' files and receiving feedback from Iris, Dora and Fiona, Claire gradually learns how to deal with (grumbling) residents. **Perception, transmission, activity and mainly participation** are the related **social interaction** processes.

The individualistic way of working at home D is reflected from the beginning of Claire's WPL. She felt she had been "thrown to the wolves" at the start of her weekend job. During WPL, Claire mostly works alone in her hallway. There seems to be **little opportunity to interact with colleagues** because there is no collective coffee meeting at the start of the shift and because they split up into small groups during the collective lunch break. Carers do confer and chat a little when they are in the department office and during the **daily particulars meeting**. There is also a daily consultation moment with the department nurse. Claire also claims to ask her colleagues questions. Although Claire likes her colleagues and claims to be content with how colleagues work together, the **social atmosphere does not seem totally enjoyable** during the observation day. This might relate to Dora's remark about Pine's 'marked personalities'. The individualistic work culture and the relatively reduced opportunity to socialise with colleagues may prevent Claire from truly integrating in the team. Perhaps this is why she is still insecure and insufficiently assertive at the end of the study. According to Dora, **writing reflections should help** Claire in becoming less insecure. Dora and Sookie also accompany her in this respect. **Perception, transmission, activity and participation** are the **social interaction processes** involved.

*Internal acquisition and outcome level*

Although Claire has learnt to treat the residents politely and in a friendly way, including the grumbling ones, she still has difficulty with handling resistant residents. In this relation, she should develop more empathy for residents and learn more about home D's vision, as pointed out by Fiona during the mid-term evaluation. However, Claire knows more about the residents' backgrounds and why they react the way they do. She also shows that she is able to deal with a grumbling resident during the observation day. **This target was realised at 'task' (3) level** mainly by **assimilation** and some **accommodation** regarding resident incidents.

Claire thinks she has progressed a great deal in expressing herself to colleagues during WPL, and reports feeling at home in the team. However, this does not show during the observation day. In addition, Dora thinks she should become better able to express her opinion. Even during the mid-term evaluation months later, Claire is still insecure about her performance. She seems to have developed the ability to be a little more assertive regarding interaction with colleagues by **assimilation to 'professional activity' (2) level**.

Table 6.11: Summary of Claire's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Claire **significantly lacks prior knowledge** regarding learning. Her **initial plan of approach is wrong** because she discovers rather late what exemptions she has. Because of her exemptions, she only needs to do 15 subassignments instead of 35. Level 3 assignments have to be completed in writing in contrast to level 2. Claire has **difficulty with the assignments and with planning** learning. She starts by bathing male residents and talking to residents as personal learning goals, but **finds it difficult to formulate personal learning goals** continually. Her **insecurity** also complicates her getting started. This insecurity **and her lack of depth** regarding learning are later suggested as **personal learning goals** by her WPL mentors. Because of her prior experience, Claire does not like being planned to accompany others until the third week (normally the fifth week) of WPL, although it could be an opportunity to reflect on her own approach and ask questions. Claire **claims to like learning new things**. Kolb's learning style test characterises her as 'a little of everything'; more of a 'diverger' and a 'doer' than an 'assimilator' and 'converger'. She therefore needs experience and observation.

*Social interaction and learning environment*

In the introductory weeks Claire is supposed to accompany others and observe them. In the collective introduction the responsibilities of students are explained. In the **individual introduction, Dora explains the plan of approach, home D's alternative workbook and the progress evaluation and reflection procedures**. Claire also takes a **learning style test**. Although Claire forgets to bring her plan of approach to the **first progress** evaluation, Dora does not want to postpone it because Claire experienced some unpleasant incidents with residents. Mentor **guidance** also relates to an explanation of the assignment book and working alongside Claire. At the end of the study, **frequency of progress evaluations is increased to help** Claire with her **insecurity and assignment completion**. **The mentors also suggest** that Claire works on her **insecurity and lack of depth as personal learning goals**. Although Claire has **not worked with her models** much, Eve has **provided explanations and checked reflections**. Claire's job concerns practical aspects of the assignments and she has also started reading for them. **Perception, transmission, experience and activity** are related **social interaction processes**, although regarding transmission, Claire does not always make an impression of active processing and reaction.

Claire has the opportunity to write (practical rather than from-theory) reflections and is scheduled supernumerary now and then for working on her learning process. While **work content** would allow Claire to learn about different aspects of the job, the **individualistic** work culture **possibly prevents further learning** from colleagues. However, Claire does ask colleagues questions.

A contradiction in guidance is that the **learning style test result does not seem to be used**. In addition, Dora does **not check whether Claire has realised the introductory goals** - some of which relate to learning - mentioned in the workbook. **Claire only meets Fiona at the mid-term evaluation after 23 weeks of WPL**. There is **no school feedback** hour. **Fiona asks Claire more critical questions during the mid-term evaluation than Dora** does. However, this meeting seems to take place **so late that it misses the point**. Preparation does not seem to have prevented Claire from not knowing some answers during the evaluation.

*Internal acquisition and outcome level*

Although **Claire** is content with her WPL, the findings show that she **has not progressed much**, regarding learning to learn. **Months after the study**, she is **still 'starting' with assignment completion**. She does not understand different terms related to learning in the mid-term evaluation. **Fiona points out that Claire requires more depth** regarding learning, which Dora supports. Dora thinks it "*cannot be determined yet*" whether Claire is able to perform adequately at level 3, after 23 weeks of WPL! **Defence**, in the sense of 'complete rejection' followed by 'mental distortion' seems to characterise the **internal acquisition process**, because Claire seems to have developed the idea that she can start with the assignments once her planning is in order; and she keeps postponing actual assignment completion.

Table 6.12: Summary of Claire's Knowledge of the organisation and work process

*Prior knowledge, motivation, emotion and personality*

Because of her **weekend job** and accompanying others during the **introduction**, Claire **has prior knowledge about the general way of working** in home D. She also has many **exemptions** for example for domestic care, making the beds and interaction and reports that she recognises what she has learnt at school. Although her continuation at level 3 shows her motivation, Claire appears rather **quiet** and **not very enthusiastic**. Her **insecurity** appears to prevent her from engaging in conversations with colleagues on her own initiative. Nevertheless, she claims to **feel at home** and to **like her colleagues**. Her **standard of hygiene** appears to be **unreasonably high**.

*Social interaction and learning environment*

Claire has found out how the work at home D is done by observing a colleague and asking questions during her weekend job in advance of WPL. She is introduced to different departments, such as personnel, during the first part of the introductory weeks. She gets to know Pine department in the second part. Information about home B as an organisation is also included in home D's workbook, and Claire is supposed to elaborate introductory goals which are related to the organisation. However, Dora does not check this. Claire works different shifts (except for the night shift) and reads and updates the residents' reports regularly. Although she is not allowed to handle medication and wound care, these tasks are carried out in her presence and colleagues have explained different aspects of them. Claire also makes use of care lists, the care plan and the day schedule. She reads and updates reports as well. However, there does not seem to be much interaction with colleagues, except for the particularities meetings - let alone real shared performance of tasks. Claire has not accompanied her models much either.

The **social** atmosphere and **lack of cooperation** among colleagues **might prevent Claire from gaining more insight** into home D's vision and organisation. For example, when Claire is asked about this **vision** during the **mid-term evaluation**, **she does not know the answer**. After 23 weeks of WPL, she should at least be able to describe it. In terms of the **division of work**, **Claire is responsible partly for planning, and mainly for carrying out and reporting about care for her own hallway**, so she has the opportunity to learn about the entire basic care process for different residents, **also in terms of work content**. She also learns how to work under **time pressure**, as shown on the observation day. However, **physical workload** may also become **too high** and **help is not always found easily**. **All types of social interaction processes** have been involved. However, **experience and imitation probably occurred less** because of the relatively low amount of supervision and because Claire was already able to perform many basic tasks independently.

*Internal acquisition and outcome level*

Claire works independently and routinely to a large extent, is able to describe the activities of a day shift and has developed knowledge about home D for example regarding what roles and tasks different colleagues have, which all implies that she has developed a **reasonable amount of work process knowledge**. Although her mentors note in the mid-term evaluation form that Claire also "*knows how to apply theory to practice*", she has not shown that she is indeed able to do this by completing assignments so far. In addition, she is not able to describe home D's vision, for example, and she does not reflect on her colleagues' performance because she feels they must know better. Only regarding hygiene standards she can be critical; however, she also keeps this to herself.

**Assimilation** has been the main internal acquisition process.

### 6.3.2 How can we describe Claire's WPL learning processes and related learning outcomes?

In Table 6.13, 1-4 we present the learning process elements in a format comparable to the research model, showing which specific influences play what role (positive or negative), to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is.

Table 6.13, 1-4: *Claire's learning processes, influencing factors and related learning outcomes*

#### 1. Personal basic care

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content: most residents able to cooperate; some are resistant	- social: individualistic work culture (Claire does receive help if needed) - workload: physical and time pressure	Perception, some transmission, experience, imitation (introductory period); activity and participation	4: 'function' level
<b>Integration measures</b>	+ personal learning goal: bathing male residents (introductory period)	- guidance: does not work with model(s) much		
<b>Learner</b>	+ prior knowledge: exemption + motivation: favourite activity + personality: precise	- personality: feels very responsible for own group of residents (and therefore does not ask questions during observation day); exaggerated sense of hygiene (costs time, results in dry hands)	Assimilation	

#### 2. Interaction with residents and colleagues

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content/social: work meetings	- social: little opportunity to interact with colleagues (especially informally)	Perception, transmission, activity and (mainly) participation	With residents: 3: 'task' level With colleagues: 2: 'professional activity' level
<b>Integration measures</b>	+ guidance (Iris, Dora); first progress evaluation + other: writing reflections			
<b>Learner</b>	+ prior knowledge: exemptions (but still has something to learn) + motivation: likes her colleagues and likes interaction with residents	- personality: insecure, not assertive enough towards colleagues	With residents: Assimilation, some accommodation With colleagues: assimilation	

3. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>		- social: individualistic work culture	Perception, (attempted) transmission, experience, activity	Little to no progress; still 'starting' with assignment completion after 23 weeks.
<b>Integration measures</b>		- wrong initial plan of approach - inconsistent guidance: no check of introductory goals by Dora; has not worked with models much - difficulty of assignments - guidance: hardly any contact with WPL teacher - no school feedback hours (only 3 half-days of school in 2-week school period) - late mid-term evaluation		
<b>Learner</b>	+ motivation: likes learning new things?	- significant lack of prior knowledge - personality: insecure	Defence	

4. Knowledge of the organisation and work process

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ division of work + work content + workload: time pressure	- social; lack of cooperation - physical workload; takes time to find help	All processes from perception to participation; however probably less experience and imitation	Works independently and routinely to a large extent, is able to describe the activities of a day shift and has developed knowledge about home D for example regarding what roles and tasks different colleagues have. Implies reasonable amount of work process knowledge. However, she has not shown that she is able to apply theory to practice (no assignment completion). Is not able to describe home D's vision either. Is critical only regarding hygiene standards; however, does not show critical attitude towards colleagues.
<b>Integration measures</b>		- difficulty of assignments		
<b>Learner</b>	+ prior knowledge about general way of working (weekend job and introduction); many exemptions (e.g. domestic care) + motivation: feels at home and likes colleagues	- personality: quiet, insecure; unreasonably high hygiene standards	Assimilation	

Claire decided to continue her Care course at level 3 because she claims to find it much more interesting. She has the opportunity to learn about a lot of care tasks for different types of residents at home D. Although most residents are able to cooperate, there is also some challenge in getting along with them for Claire. Home D's individualistic work culture and social atmosphere is also challenging, in a rather negative sense. This proved to be extra difficult for Claire because she is already shy and insecure, despite the fact that she already has a level 2 diploma and is motivated for Care.

Claire has many exemptions, and therefore appears to be able to do the work independently relatively early. She mainly seems to learn through assimilation by activity and participation, therefore. Claire's prior work experience turns out to be distorting, however, which shows in her 'learning to learn' process. She starts off with a wrong plan of approach, and finds assignment completion at level 3 very difficult. When she is asked about time and energy investment in the assignments, she answers [si]: "*Yes, I'm actually just starting (end of period of the study), so, but as Sookie explained it today, this week I want to complete subassignment nine. Next week I want to hand it in and then I want to do something else. But in the week when I have to do assignment nine I also have to look ahead at what else I have to arrange (for the next subassignment). So then you actually have three things in one week and you think, I hadn't thought of it that way.*" Although Claire claims to like learning new things, she did not want to be planned supernumerary for more than two weeks at the start of WPL because she felt she already knew enough to start. However, she could also have used this period for observation, asking questions and reflection. Although it offers the opportunity to learn how to work under some pressure, the physical workload and time pressure at home D probably does not help regarding Claire's threshold for asking questions and asking for help. The negative personality influences in combination with the lack of or inconsistent use of integration measures and the individualistic work culture seem to have led to 'defence' in terms of internal acquisition regarding 'learning to learn', meaning that Claire has not actually progressed regarding learning. Lack of assignment completion and more thorough reflection raises doubts about the other outcomes. Claire also remains insecure regarding interaction with colleagues. In terms of social interaction, the more instructive processes (transmission, imitation and experience) have only played a small role in Claire's relearning how to bathe male residents and becoming able to deal with some more unfriendly residents. Claire is allowed to work independently from a relatively early stage while she might have benefited from accompanying a role model for a longer period or working together more with other graduated carers.

After 23 weeks of WPL, in the mid-term evaluation, Claire's mentors and Fiona conclude that Claire requires "*more depth*" regarding learning. This seems an understatement, because Claire has hardly progressed regarding learning at all. Even though she only needs to complete 15 assignments instead of 35 in her basic phase, she will have to work hard if she wants to make this in time. Dora thinks it "*cannot yet be determined*" whether

Claire would be able to perform adequately at level 3 even after 23 weeks of WPL! These findings raise the question whether Claire is at all suitable for participation in the Care course at level 3.

## 6.4 Dennis's case

### 6.4.1 Summary of Dennis's case

Before the conclusions of Dennis's case are drawn, we present his background and the four learning processes in summary displays. From these displays, we can infer how Dennis progressed and how different learning process elements as identified in the research model played a role. In Table 6.14, the background to Dennis's case is summarised. Tables 6.15 to 6.18 show the summaries of the learning process descriptions for 'personal basic care', 'interaction with residents and colleagues', 'learning to learn' and 'knowledge of the organisation and work process'.

Table 6.14: *Dennis's background display*

<b>Dennis (w-b pathway)</b>	<p>Male aged 19, who finished junior general secondary education before he started with Care at level 4 in the s-b pathway. Switched to the w-b pathway in his first year and continued at level 3 at the end of the basic phase, because his work at an oncology department of a hospital was too hard. Failed a lot of subjects. Starts with WPL at home A (part-time) after the first week of January (2004). Dennis thinks you learn more by combining a job with school.</p> <p>Likes helping people, comes across as motivated, serious and friendly. Can also be forgetful and chaotic; does not always follow up on appointments.</p>
<p>Learning environment - Training company</p>	<p>Home A is a home for the elderly, upgrading to nursing home status at time of the study, accommodating more than 300 residents. Residents requiring extra care become part of the client group because of the status upgrade. Residents usually react positively to students.</p> <p>During the observation day the day schedule is read out at 8 a.m., while the carers drink coffee or tea. The schedule is written down on the whiteboard. Further activities are:</p> <ul style="list-style-type: none"> <li>• waking up, bathing and dressing residents (personal basic care) and providing medicine</li> <li>• small domestic tasks</li> <li>• helping residents to bed</li> </ul> <p>Workload can be high, especially during the first part of the morning.</p> <p>Home A aims to be a 'friendly, cosy, and caring' humanistic home. Residents are presumed to be central and have relatively large, private apartments. At Dennis's department - Elana - more than 60 residents are accommodated. Dennis has more than 20 colleagues at his department. He likes being a student here.</p>

Table 6.14: *Dennis's background display (Continued)*

<p>- WPL curriculum and integration measures</p>	<p>Guidance: May as WPL mentor (part-time carer and part-time mentor in Dennis's department), no regular role model. Mona as WPL teacher. The mentor monitors the learning process and assesses the assignments, while the model teaches the student the practical skills. May and Dennis meet rather late because May first works at another department; Grace (Mary's case) has hired Dennis.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- Introduction to Grace; orientation period in advance of WPL.</li> <li>- Two weeks of accompanying graduated colleagues from start of WPL. Dennis is not planned supernumerary at all. He does not have any study hours. Dennis is allowed to administer simple medication because of his previous course. Dennis only has an assignment book, no workbook. To complete assignments, he should first complete the theoretical parts in writing and then plan a moment with May to have his practical performance assessed.</li> <li>- Introduction to May, meeting with Grace and May, in which plan of approach is discussed.</li> <li>- After 16 weeks of WPL: first progress evaluation (second one takes place four weeks later). Dennis is asked how he is doing; any problems and assignment completion are discussed. Progress evaluations are intended to take place every two weeks.</li> <li>- After 21 weeks of WPL: mid-term evaluation.</li> <li>- After 22 weeks of WPL: two weeks of school. No school feedback hours.</li> </ul>
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Table 6.15: *Summary of Dennis's Personal basic care process*

<p><i>Prior knowledge, motivation, emotion and personality</i></p> <p>Dennis's <b>prior knowledge is basically sufficient</b> because of his previous job at level 4. He does need to fine-tune to the particular needs of Elana's residents. He has not yet passed the related assignments. Dennis <b>feels it is important</b> that <b>residents are cared for well</b>, that the apartment is left tidy and that <b>residents are treated respectfully</b>. He shows an <b>active attitude</b> during the personal basic care activities of the observation day.</p> <p><i>Social interaction and learning environment</i></p> <p>Dennis is <b>not planned supernumerary</b> at all. In the first two weeks, he receives an explanation of "<i>how things work</i>" at home A. He <b>accompanies different colleagues</b> rather than one regular role model. After the first couple of weeks, Dennis gradually starts working more independently. Residents' poor health conditions may require two carers to help. Dennis therefore <b>still works together closely with colleagues sometimes</b>. Dennis does not have a fixed hallway of residents, although he knows the residents of one hallway best. During the observation day, he needs to work on two different hallways, which is rather <b>stressful</b> for him. He is told to confer with one of the colleagues from one of these hallways throughout this day. During this day, other colleagues also ask him to do particular tasks sometimes. They sometimes do not know how much experience Dennis has with particular residents and what he is allowed to do. Dennis still requires instruction, because he might not know about particular residents' health conditions or preferences. He also asks questions about how to help particular residents. Sometimes he needs to wait a relatively long time for help, while he is already busy. When Dennis is caring for residents on his own, he confers with them about their abilities and preferences. <b>Perception, transmission, some experience, activity and participation</b> are related <b>social interaction processes</b>.</p> <p>In the day schedule, residents' appointments that need to be taken into account for the schedule of personal basic care are noted. Care lists are available. During the observation day, the planning fails because too many carers have called in sick. <b>The work does not come across as well organised</b> during this day therefore. In terms of <b>work content</b>, Dennis has the opportunity to learn how to provide personal basic care to relatively healthy residents as well as to those requiring extra care - because of the new nursing home status. <b>Colleagues help each other to finish the work</b>; however, there is <b>little time for informal communication</b> during the first part of the morning. When Dennis asks for help, he may have to wait a long time and colleagues' <b>work pressure</b> may increase because of Dennis's questions. However, this does not prevent Dennis from asking questions about how residents need to be cared for.</p> <p><i>Internal acquisition and outcome level</i></p> <p>During the observation day, Dennis is not yet familiar with all residents and he still makes little mistakes. The latter may also be a result of the high workload. Dennis feels he has developed his own way. At the end of the study, Dennis has become able to provide personal basic care, according to May. However, he has not completed any related assignments. We conclude that Dennis has realised this target at <b>'task' (3) level</b>.</p> <p>The gradual fine-tuning to Elana's residents from sufficient prior knowledge, points to <b>assimilation</b> as the internal acquisition process involved.</p>
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Table 6.16: Summary of Dennis's Interaction with residents and colleagues process

*Prior knowledge, motivation, emotion and personality*

**Although Dennis does not know Elana's residents or the target group of elderly care** when he starts with WPL, **he does not seem to have a prior knowledge problem**. His prior knowledge regarding interaction with colleagues is not a specific point of attention either. Dennis is able to ask questions and ask for feedback.

Dennis **treats residents in a friendly way**, but does not address them formally as is common in home A. However, he claims that most of the residents he knows want to be addressed by their first name. **Dennis especially likes being able to make residents happy and joking** with them, even though some of them can be annoying. Because of **time pressure**, however, he may **not always be able to give each resident full attention**. **Dennis likes his team and interacts pleasantly with colleagues**.

*Social interaction and learning environment*

In the first couple of weeks of accompanying others, Dennis has learnt "*how things work*" at home A. He does not have the opportunity to get to know a specific hallway of residents well, because he is **not assigned a fixed hallway**. Dennis asks residents what preferences they have and also engages in a chat with them. During the **progress evaluation**, Dennis reports that he does not feel he has to change anything regarding interaction with residents. During the observation day, he cares for people who are relatively independent as well as residents requiring extra care. **Colleagues instruct Dennis or answer his questions** about the residents' health conditions or their preferences. During the **mid-term evaluation**, Dennis reports to Mona that he treats residents respectfully and in a friendly way, which is confirmed by May.

In the **day schedule**, residents' appointments are noted; **care lists** are also used at Elana. **Residents' health conditions** are also **discussed during work and breaks**. Most **residents are able to express** their preferences; for example concerning what clothes they want to wear. The **social interaction processes** involved are **perception, transmission, experience, activity and participation**.

Dennis **gets to know his colleagues by talking to them during work** and about work **during breaks**, and asking questions. **During breaks colleagues talk more about personal topics** and the **social atmosphere** appears to be **pleasant**. During work, **carers are very busy** on the observation day although interaction appears to be pleasant as well. Colleagues also talk about the new way of working since the nursing home status. **Dennis works together** with colleagues when residents requiring extra care need to be helped. He **receives suggestions** about work from colleagues, but also provides them himself. During the observation day, Dennis asks questions about specific residents' needs. **Sometimes he has to wait a long time for help** because it is so busy. During the **mid-term evaluation**, Mona asks Dennis how he is working together with colleagues. He feels that this is going well and reports that he asks for feedback. May thinks it is important to ask questions: asking questions is better than making mistakes. Dennis also asks colleagues about their work planning, because he feels he is a little chaotic himself and used to lack time to finish the work. **Social interaction processes mainly are experience, activity and participation**.

*Internal acquisition and outcome level*

Dennis thinks he has learnt how to interact well with elderly people, which is confirmed by May. Although Dennis still needs to do the related assignments, we conclude that 'interaction with residents' has been realised at '**function**' (4) level.

In the mid-term evaluation, Dennis's ability to cooperate with colleagues is characterised as good. Dennis confers with his colleagues and asks for feedback. May thinks, however, that Dennis can be a little chaotic and forgetful. As a consequence, he may forget to tell colleagues what activities he is allowed to perform, for example. He also still has to complete his assignments. The conclusion is that he has realised this target at '**task**' (3) level.

Dennis improves gradually regarding interaction both with residents and with colleagues. He does not report any start-up problems or further problems regarding the difference between theory and practice. This implies **assimilation** as the internal acquisition process **for both of these processes**.

Table 6.17: Summary of Dennis's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Although Dennis thinks he is entitled to exemptions, he failed many assignments during his previous course at level 4. He is therefore told from the start that he does not have any exemptions. In this respect, his **plan of approach is not right** either. Dennis's **prior knowledge** regarding learning is **insufficient as well as incorrect**.

Dennis has **difficulties formulating personal learning goals** and is characterised as 'easy-going' or even **lazy**. However, he claims that his current course is easier than the course at level 4. He **does not like his class** at school, and **feels school is behind** on practice. He claims, however, that he likes being a student at home A.

*Social interaction and learning environment*

Dennis is introduced to home A by Grace (Mary's case). When May also starts working at Elena, she becomes Dennis's WPL mentor and discusses her approach with him. Together with Grace, May and Dennis discuss his plan of approach. Dennis accompanies a graduated carer for a couple of weeks to learn "how things work" at home A. He later also learns from residents themselves how to fine-tune to their preferences and needs. Carers should work according to the care lists, and for students there is also an **information booklet** describing for example home A's vision and the target group of residents. Dennis should indicate himself when he wants to have the **assignments** checked theoretically as well as in practice. He consults May when he experiences problems both with the work and with learning, he claims.

In the observed **progress evaluation**, Dennis reports that he is doing well and that he will hand in some subassignments that week. He **does not have any clear personal learning goals**. However, when May urges him, he reports that he should be less chaotic and work in a more systematic way. May tells Dennis that he has a good occupational attitude, and compliments him for actively working on his learning process. Dennis has not prepared for the **mid-term evaluation** by completing the form beforehand, although he claims to be familiar with the procedure. Mona asks Dennis about his **plan of approach**, to which he responds that he has "everything finished on paper". Mona also asks Dennis to elaborate his **personal learning goals** and then provides some suggestions regarding how to achieve them. She also tells Dennis that he should hand in a report (comparable to the school feedback hour reports in the case of s-b pathway students) around three months later. Three weeks after the mid-term evaluation, (24 weeks after the start of his WPL), May tells Dennis his **plan of approach is all wrong** because he is **not entitled to exemptions**. He should therefore redo all assignments. **Transmission** (or attempts) and **some experience** are the **social interaction** processes involved.

**May's guidance is not consistent**. For example, even though she intends to have progress evaluations every two weeks, it "has gone wrong" with Dennis because he has also had school in between, which is rather logical for a student. Dennis's **first progress evaluation takes place in April**, even though Dennis has worked at home A since January. On the other hand, May has asked Dennis several times about handing in the assignments, but he just does not hand them in. **May would like** to have **more time** for her mentor tasks: care always has priority now. **Mona** has only met with Dennis briefly at school before WPL. The first time she has the opportunity to get to know him further is during the first mid-term evaluation: rather late. Dennis has received a phone call about his misunderstanding regarding the exemptions from the WPL coordinator at school, and Mona sent May a letter about this subject. Two months after the end of the study, Mona reports that she has just heard that Dennis is not doing well at home A.

*Internal acquisition and outcome level*

Dennis needs to redo all assignments he thinks he has exemptions for and has not handed in any other assignments either, despite his claim to have "everything finished on paper". He has not progressed regarding his personal learning goals either. Consequently, Dennis has **not become more competent in learning** at all. This process appears to meet the definition of 'defence' in the sense of complete rejection in the beginning, followed by mental distortion: Dennis thinks that he does not have to do so much because of his supposed exemptions; while in reality he still needs to do everything. He simply chooses to ignore this information. He does not hand in what he claims he has finished on paper, implying that he does not have it finished at all.

Table 6.18: Summary of Dennis's Knowledge of the organisation and work process

*Prior knowledge, motivation, emotion and personality*

Dennis has learnt at school about for example planning and reporting and respecting the residents' privacy. He already knows the basics of the work from his previous job and already knows something about medication too, but is not familiar with the nursing home context when he starts. No prior knowledge problems are apparent.

Dennis **enjoys the work and is motivated**; he likes helping people and is **ambitious** to ultimately reach SVE level 5. He has to get used to the idea that residents pass away and that euthanasia may sometimes be carried out in his department. Dennis **likes being allowed to do new things and asks for feedback**. He **experiences the physical workload as high** sometimes. Dennis shows an **active attitude**. However, he **feels he is working beneath his level**.

*Social interaction and learning environment*

Dennis has learnt how things work at home A by **accompanying colleagues for the first couple of weeks**. Later he still **works together with colleagues** when helping residents requiring extra care. During the observation day, Dennis accompanies the medicine distribution round for the first time. He shows an active attitude and asks his **colleague** questions, **who provides instructions**. In the **progress evaluation** Dennis reports that he is doing well and is asking for help and feedback. **May thinks it is important that he takes over the work from the person whom he asks for help**: otherwise this person will be overloaded. May compliments Dennis on his good occupational attitude and his actively working on his learning process. Mona needs to explain Home A's vision to Dennis during the **mid-term evaluation**, after which he indeed recognises this. **All social interaction processes** have been involved.

Dennis works **regular day shifts as well as weekend** shifts. He also learns about the kitchen and cleaning, because he may need to take over these tasks when others are ill. Carers start with **reading the day schedule** and drinking coffee together. Related tasks are written on the department **whiteboard**. Carers have **breaks together**, during which **they talk mostly about personal topics**. Throughout the day, **they confer about work**. **Graduated carers check up on students' progress** during the day. One graduated carer is assigned to organise medicine distribution. Another graduated carer needs to take over when this person is off. Mistakes are discussed with the person concerned and discussed with the department head if required. Protocols are being rewritten at the time of the study and carers should use the care lists. **Work appears to be organised well, although** things seem to run a **little chaotically during the observation day**. However, this is the result of illness among colleagues causing undermanning. Still, May's comment about Dennis having to take over the work of carers whom he asks for help shows that **work pressure is high in general**. **She would also like to have more time for guidance** herself. Dennis is also late for the observed progress evaluation because he has not yet finished helping a resident. On the one hand, Dennis has the opportunity to get to know many different residents because he does not work on a fixed hallway. On the other hand, during the observation day **he does not seem to be the main carer responsible for any of the residents**. He therefore seems to have **little scope for planning and evaluating** the care activities he needs to carry out.

*Internal acquisition and outcome level*

May thinks Dennis works independently and is developing positively as an employee. He has just accepted an extension of his labour contract at the time of the mid-term evaluation. He feels he has developed his own way and that he is allowed to do more than at the start. He has developed knowledge about the way of working and its organisation. He is, for example, able to explain the medication distribution procedure and which medicines are used by Elana's residents, although he is not allowed to carry out all medication tasks yet. Dennis **appears to have developed a reasonable amount of work process knowledge**. Nevertheless, although Dennis claims to work routinely, he is characterised as chaotic throughout WPL. In addition, he has not completed any assignments yet and has therefore not shown that he has synthesised his knowledge with theoretical understanding.

Although Dennis did not know what to expect beforehand, no start-up problems were reported. He knew the basics from the former job and has gradually learnt more about home A by **assimilation**.

### 6.4.2 How can we describe Dennis's WPL learning processes and related learning outcomes?

Table 6.19, 1-4 shows which specific influences play what role (positive or negative), to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is.

Table 6.19, 1-4: *Dennis's learning processes, influencing factors and related learning outcomes*

#### 1. Personal basic care

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social: colleagues work together in case of residents requiring extra care and help each other to finish the work + work content	- division of work: no fixed hallway of residents - workload: time pressure	Perception, transmission, some experience, activity, participation	3: 'task' level
<b>Integration measures</b>	+ WPL curriculum: accompanying others in first couple of weeks	- guidance: no regular role model		
<b>Learner</b>	+ prior knowledge + motivation and personality: values providing good care; active attitude		Assimilation	

#### 2. Interaction with residents and colleagues

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social: colleagues' explanations and feedback; pleasant social atmosphere + work content: residents' response + division of work: day schedule, care lists, discussion of residents' health conditions	- division of work: no fixed hallway of residents - workload: time pressure	With residents: Perception, transmission, experience, activity and participation With colleagues: Mainly experience, activity and participation	With residents: 4: 'function' level
<b>Integration measures</b>				With colleagues: 3: 'task' level
<b>Learner</b>	+ motivation and personality: likes helping people; treats residents in a friendly way; especially likes making them happy; asks questions and feedback; likes his team; communicates pleasantly with colleagues		Assimilation	

3. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>		- workload: time pressure	(attempted) transmission and some experience	Has not become more competent in learning: has not completed any assignments or realised his personal learning goals.
<b>Integration measures</b>		- inconsistent and too little guidance (although Dennis is satisfied): May and Mona come into action late - plan of approach not right; no workbook or school feedback hours or study hours - WPL curriculum: not planned supernumerary		
<b>Learner</b>		- insufficient and incorrect prior knowledge; wrongfully thinks he has exemptions - personality: easy-going or even lazy - motivation: does not like school	Defence	

4. Knowledge of the organisation and work process

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content: consultation during work and informal communication (social) during breaks; Dennis works different shifts + division of work (day schedule, whiteboard) + social: colleagues work together and provide feedback	- high physical workload and time pressure (also for May) - division of work: little scope for planning and evaluation for Dennis	All social interaction processes	Has developed positively as an employee and has developed knowledge about home A. Appears to have developed a reasonable amount of work process knowledge. Is still characterised as chaotic however and has not completed any assignments yet. Has therefore not shown that he has synthesised his knowledge with theoretical understanding.
<b>Integration measures</b>	+ WPL curriculum: accompanying others in first couple of weeks + mid-term evaluation	- inconsistent and too little guidance - no workbook or school feedback hours		
<b>Learner</b>	+ motivated and ambitious: enjoys the work and likes being allowed to do new things; asks for feedback	- personality: forgetful and chaotic - motivation: feels he is working beneath his level	Assimilation	

Home A offers a beneficial learning environment in terms of work content and social atmosphere. Dennis's colleagues work together pleasantly and provide feedback on his performance. Dennis is motivated for Care and already knew the basics and progresses to a satisfactory level through assimilation mostly by transmission, experience, activity and participation regarding most outcomes. However, although Dennis is motivated for the work and initially seems ambitious regarding his education, he is characterised as "*easy-going*" or even lazy regarding school and assignments. His incorrect idea about exemptions and laziness regarding his course, in combination with inconsistent and too little guidance, negatively influence his learning. Dennis breaks his word about handing in the assignments all the time, to May's frustration. Although Dennis was told from the start that he had to do or redo all his assignments, he chose to ignore this information. May's guidance seems to get going rather late - probably because of time pressure at home A. Because as a w-b pathway student Dennis also lacks a workbook, study hours or school feedback hours, nothing else makes him start taking his learning process seriously: Mona neither. Dennis's apparent ease with the work and his claim that he has "*everything finished on paper*" seem to have a distorting influence. Dennis has not become more competent regarding learning and his internal acquisition process regarding 'learning to learn' is characterised as 'defence'. While the work organisation, the day schedule and care lists may provide Dennis with the 'overview' he needs to become less chaotic in his work, he appears to have little scope for planning and evaluating his care activities himself. He also feels he is working beneath his level and may therefore underestimate his tasks. He remains forgetful and chaotic, and progresses less than he could have.

As reflected in the social interaction processes, Dennis is allowed to work relatively independently from an early stage. Accompanying a regular role model for a longer period might have provided him with the continuity to develop an overview of the care activities and become less chaotic. The more instructive processes that do take place regarding 'learning to learn' seem to be in vain. Dennis does not complain about guidance: he is relieved to be in a much better situation than in his former job at the hospital. However, his first progress evaluation, for example, takes place no sooner than 16 weeks after his start. Workload is high in terms of time pressure, which also negatively influences time for guidance by May. Mona also gets to know Dennis rather late: the mid-term evaluation takes place 21 weeks after Dennis's start. Although Dennis feels he has a pleasant WPL period and his outcome levels appear to reflect good results, he was relegated from level 4 to level 3 and therefore already knew how to carry out most of the tasks. The question is whether he has truly learnt about the theory underlying 'personal basic care' in this WPL phase, for example, because he has not handed in any assignments. Dennis needs to make some major adjustments if he indeed wants to continue to level 5 in the future. In her interview, which, due to unforeseen circumstances, took place two months after the actual end of the study, Mona reported that she had just learnt that Dennis was not doing well at home A. She thought Dennis had probably still not completed any assignments. Consequently, while Dennis reported that he felt he was

working beneath his level during the study, the question is whether even level 3 is not out of his league.

## 6.5 Mary's case

### 6.5.1 Summary of Mary's case

Table 6.20 summarises Mary's case background and Tables 6.21 to 6.24 show the summaries of the learning process descriptions for 'personal basic care', 'interaction with residents and colleagues', 'learning to learn' and 'knowledge of the organisation and work process'. From these displays, we can infer how Mary progressed and how different learning process elements as identified in the research model played a role.

Table 6.20: Mary's background display

<p><b>Mary (s-b pathway)</b></p>	<p>Female aged 17, who attended a beautician pre-vocational secondary education course before she switched to the current Care course. Did not feel she was good as a beautician student and could not see herself pursuing a career in this occupation. Opted for the s-b pathway because after all she has got a lifetime of work ahead of her. Selected home A because she liked doing her volunteer work here, and she also lives nearby.</p> <p>Likes interaction with people and helping them. Has relatives working in care. First waits to see how the land lies; likes regularity and knowing where she stands; sensitive to compliments. Quiet, but not shy. Motivated, active student, who is sometimes drawn to emulating cheeky behaviour of peers.</p>
<p>Learning environment - Training company</p>	<p>Home A is a home for the elderly shifting to nursing home status at the time of the study. It accommodates more than 300 residents. Because of the new status, residents who are more care-dependent become part of the client group. Still, Mary's fixed group of residents are generally able to cooperate and also carry out aspects of bathing and dressing themselves. Residents react positively to students.</p> <p>One type of day shift starts at 8 a.m. and ends at 6 p.m. (There is also a shift until 4.45 p.m. with a shorter lunch break). Carers start by having coffee and tea together while the department head reads out the day schedule. This schedule, concerning for example residents' appointments with their doctors, is copied onto the whiteboard. Further activities are for example:</p> <ul style="list-style-type: none"> <li>• Preparing breakfast for residents; bathing and dressing residents (personal basic care)</li> <li>• Small domestic tasks such as doing residents' dishes and making the beds</li> <li>• Taking care of the bread round</li> </ul> <p>Work progress is discussed during the work and during the breaks.</p> <p>Mary does not experience the workload as high in terms of time pressure, but it can be high physically. Mary cares for two care-dependent residents in her fixed group. Carers are responsible for their own fixed group of residents. Other carers work in other apartments, but remain available for help. Home A aims to be a 'friendly, cosy, and caring' humanistic home. Residents are presumed to be central and have relatively large, private apartments. Mary's department 'Brooke' accommodates around 65 residents, divided over approximately 11 graduated carers (5 full-time) and 9 students. Mary likes working at Brooke.</p>

Table 6.20: *Mary's background display (Continued)*

<p>- WPL curriculum and integration measures</p>	<p>Guidance: Grace as mentor (also a part-time carer in Mary's department), Jill as model and Mona as WPL teacher.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- One week in advance of WPL: WPL preparatory lesson at school about planning learning, the workbook, general procedure regarding assignments and the schedule of learning activities.</li> <li>- One week in advance of WPL: individual introductory interview with Grace. Grace briefly explains about home A, the status promotion, how Mary will start, and the study hours. Mary has four study hours a week (in a row). Students are not allowed to administer medication.</li> <li>- First week of WPL: accompanying housekeeping and kitchen staff during first part of the mornings.</li> <li>- After two weeks of WPL: first (and only) progress evaluation with Grace.</li> <li>- After two weeks of WPL: first school feedback hour with Mona.</li> <li>- After two-and-a-half weeks of WPL: 10 days of vacation.</li> <li>- After six weeks of WPL: mid-term evaluation with Grace and Mona.</li> <li>- After eight weeks of WPL: second school feedback hour with Mona.</li> <li>- After nine weeks of WPL: first (and only) progress evaluation with Jill.</li> <li>- After ten weeks of WPL: final evaluation with Grace and Mona.</li> </ul>
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Table 6.21: *Summary of Mary's Personal basic care process*

<p><i>Prior knowledge, motivation, emotion and personality</i></p> <p>Remarkably, Mary thinks putting on support stockings at home A is easier than at school. This is because her peers at school were not really serious during the practice lesson. Mary does not report any starting difficulties with personal basic care. According to Grace, Mary was <b>prepared well enough</b>. Mary <b>likes providing personal basic care</b>, especially when she is allowed to do this independently. <b>The work</b> is sometimes experienced as <b>physically hard</b>, however. Although impatient residents may cause Mary to react defensively or become a little irritated, she mainly treats residents in a friendly way and takes their wishes into account.</p> <p><i>Social interaction and learning environment</i></p> <p>After having accompanied housekeeping and kitchen staff during the first part of the mornings of the first week, Mary starts accompanying Jill. Mary observes and imitates her model, practises and <b>receives explanation and instruction from Jill</b> for around two weeks of accompanying her. In the progress evaluation, Grace checks how Mary is doing regarding personal basic care and emphasises that Mary should 'draw the line' at what she feels comfortable doing. Mary showers a resident for the first time after three weeks of WPL. She ultimately cares for some residents independently, including those requiring extra care. She basically works on her own, making use of the care list, although Jill remains available in the hallway and they help each other to finish the work in time. Mary also works together with her peers. The <b>social interaction processes range from perception to activity, and participation</b> towards the end.</p> <p><b>Work content</b> provides experience in a range of personal basic care activities for residents with different degrees of care dependence. The work is highly <b>organised</b> by the <b>day schedule</b> and the <b>care lists</b>. <b>Time is taken</b> to instruct and explain personal basic care to Mary and have her practise it. Physical workload does not appear to influence Mary's learning process negatively. <b>Although the work is individualistic</b>, as soon as Mary is ready to care for residents more independently, <b>Jill and other colleagues and students remain available for questions and help</b>. <b>Mary uses her plan of approach and completes the personal basic care subassignment</b>.</p> <p><i>Internal acquisition and outcome level</i></p> <p>Mary was sufficiently prepared for personal basic care before WPL started and gradually learnt to perform personal basic care at home A, pointing to <b>assimilation</b>. She has become able to provide personal basic care independently, in her own way, and is also ultimately allowed to care for some residents requiring extra care. She has also completed the related subassignment. These findings indicate that Mary has realised this target at <b>'function' (4)</b> level.</p>
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Table 6.22: Summary of Mary's Interaction with residents and colleagues process

*Prior knowledge, motivation, emotion and personality*

Mary feels she uses the strategies taught at school for interaction with residents at home A. She has formulated her personal learning goals around interaction subjects: 'being able to draw the line', 'being able to deal with criticism', and 'taking the initiative'. However she does **not appear to have a lack of prior knowledge** regarding interaction when she starts WPL at home A. She also admits to having formulated these goals because she could not 'think up' anything else.

Mary **really likes chatting with and caring for the residents** and treats them politely and in a friendly way. Her soft voice may sometimes cause communication problems. Mary also **likes her team of colleagues**. Although she is quiet, she is not shy regarding asking her colleagues questions and requesting feedback from them.

*Social interaction and learning environment*

Mary has the opportunity to get to know the residents before providing personal basic care to them, during the first week of accompanying the housekeeping and kitchen staff. Next, during her period of **accompanying Jill**, she really learns what residents' wishes and habits are. She also interviews a resident for a subassignment ('planning of care'). Interaction situations are also discussed during the school feedback hours.

Most **residents are able to engage in a talk** with their carer **and discuss the care approach**. It may cost time and energy, however, to extensively discuss and meet a resident's wishes. **Colleagues discuss and explain residents' situations** during the work or during breaks. Mary **uses her plan of approach to complete two 'interaction with residents' subassignments**. **Social interaction processes range from perception to imitation** at first, after which **activity** becomes dominant. **Participation** plays a role at the end of the period.

Consultation is organised by collectively reading the day schedule at the start of the shift, and also takes place more informally by discussing work progress during work and during breaks. Mary confers with Jill about when to carry out which activities. **Carers** have the opportunity to **talk about work during work and during breaks**, and they also **talk about personal topics**. They have **breaks together**. **Colleagues help each other** to finish the work. The **social atmosphere** among colleagues appears **pleasant**. Mary feels she can ask anything and she has only received positive feedback so far. Mary has not completed any 'interaction with colleagues' subassignments. She was **not observed to receive explicit feedback about interaction with colleagues**, apart from compliments about being able to take the initiative and draw the line. **Activity and participation** especially **are dominant social interaction processes**, together with **perception** and **some transmission**.

*Internal acquisition and outcome level*

Apart from her tendency to speak too softly, Mary interacts well with residents. She has completed two 'interaction with residents' subassignments. She has realised this outcome at **'function' (4)** level by **assimilation**.

Mary feels she is able to express her opinion. She takes the initiative and confers. Grace thinks that Mary has gained self-confidence and shows initiative. By not receiving any negative feedback, however, her personal learning goal regarding 'being able to deal with criticism' is difficult to realise. She does not show a reflective attitude towards her competence of interaction with colleagues. In addition, she has not completed any assignments regarding this target. This outcome was realised at **'task' (3)** level, by **assimilation**.

Table 6.23: Summary of Mary's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Mary **thoroughly planned her learning process** beforehand by using the **plan of approach** regarding assignment completion. She even completed theoretical parts of the assignments beforehand. She knows what learning activities she needs to perform and shows she does not have any problems with assignment completion. Her **prior knowledge**, therefore, is **highly sufficient**. She does **not** experience the school feedback hours as **useful** for herself, **does not feel strongly about her personal learning goals** and thinks the **assignments are "kind of nonsense, actually"**, because they are too much work in addition to working itself. Nevertheless, she comes across as a **motivated student** who uses the study hours well. **Positive feedback** appears to be very **important** for her.

*Social interaction and learning environment*

By using the **plan of approach**, Mary plans which assignments she needs to make and when. She has made a slightly more straightforward format for her overview than the one provided in the workbook. On the other hand, she **has included the assignment texts with this overview**. Mary **takes the opportunity to ask questions about WPL in the preparatory lesson**. In the introductory interview, Grace briefly informs Mary about home A, the status upgrade, the start of WPL and the study hours. Mary has **one progress evaluation with Grace**, two weeks after the start of WPL, in which they discuss personal basic care and drawing the line, Mary's interview with a resident, and assignment completion. In the first **school feedback hour**, students report that school is old-fashioned. Little discussion takes place and the **students are easily distracted**. Mary tells Mona that she is doing well. In the second feedback hour, Mary reports that she is still doing well. She also reports an interaction difficulty, to which Mona reacts with a suggestion. The **students are even more distracted than the first time**. Mary is the only one who **handed in the related reports** beforehand.

Mary also participates in a **clinical lesson about diabetes**, presented by two third-year students. Except for one category, she has **filled in the mid-term evaluation form herself before the actual evaluation**. She **uses the study hours** to complete her assignments and further elaborates them, using the PC, at home. She uses her theory books and is **also helped by her mother and sister**. She manages to **complete all planned assignments**.

**Both Grace and Jill regularly check** whether Mary is doing OK, and whether she needs to hand in assignments or whether she wants to discuss anything else. Mary asks Jill questions about care. She **asks 'everyone' about her assignments** when she is studying in the department kitchen. Jill is observed to drop in now and then to check up on Mary during the observation day. Grace is also present in the department and checks the execution of particular tasks. Related **social interaction processes are transmission, experience, activity and some participation**.

**Guidance at home A** is experienced as **good**. Still, **one contradiction observed is that Mary only has one progress evaluation with Grace and one with Jill**, although Grace should meet with Mary every week and Jill should meet with Mary every two weeks. Although **Mary does not experience time pressure**, this may be **different for Grace and Jill**. Grace has already reported time pressure to be high and during the progress evaluation she arrives late; she needs to answer the phone several times and she even leaves briefly. With Mona, Mary has contact during the school feedback hours and the evaluations at home A.

*Internal acquisition and outcome level*

Mary does not feel she has explicitly applied theory to practice. She has not really explicitly worked on her personal learning goals either. Grace thinks Mary is a motivated student who is continuing to develop. Mary should - in the next WPL period - also reflect on why things are done in a particular way; she could be more reflective. However, she has completed 14 subassignments at the end of the WPL period, as planned. Mary considered beforehand which assignments she wanted to complete, processed this in a thorough plan of approach, and followed this plan to a large extent. She was not observed to be confronted with any problems in her learning process. She does not seem to be bothered by any differences regarding theory and practice. The internal acquisition, therefore, is characterised as **assimilation**.

Table 6.24: Synthesis of Mary's Knowledge of the organisation and work process

*Prior knowledge; motivation, emotion and personality*

Mary's **prior expectations**, based on volunteer work in home A and the WPL preparatory lesson, **are not very different from reality**. However, some of the material used at home A is different or more modern than what was taught at school.

Mary likes to know where she stands and **appreciates the gradual introduction** to the care work. She also values the organisation of the work by the day schedule and the whiteboard, the care lists and the week planning. Although she is allowed to apply an astringent to residents' skin, she claims not to pay further attention to medication at home A, because this is not part of her curriculum yet. Mary **likes the work** although she experiences it as physically hard; she also values a long break in between her shift. She shows an active attitude during the work, however.

*Social interaction and learning environment*

In the **WPL preparatory** lesson, Mona provides some information about home A. Mary has an individual **introductory interview with Grace**, and is **gradually introduced** to the work by first **accompanying housekeeping and kitchen staff** before she starts accompanying care colleagues. After her **period of accompanying Jill**, she is left to work relatively independently. She still **works together with Jill, other colleagues or her peers sometimes**. She **asks her colleagues and peers informative questions** about the work. When working together with a graduated colleague once, she was confronted with an incident where a resident fell. She had the opportunity to observe how her colleague handled this. Mary also participates in a **clinical lesson** about diabetes. The question how Mary complies with home A's vision is discussed during the **mid-term evaluation**. The **full range of social interaction processes** have played a role.

**Carers confer** at the start of the day and during the **breaks**. They also **talk** about residents' situations **during the work** and are observed to provide explanations about residents' situations and activities in home A to Mary as well. Apparently, there is **time** for this kind of communication. In the **weekly planning**, daily tasks are written down. On the whiteboard related to the **day schedule**, residents' important appointments are noted for example. There are also **residents' files**, and residents may have their own timetable for specific activities in their room. There is also a list of room numbers for which beds need to be made on which day. Problems are discussed with the department head; if required, the head carer will also be consulted. In other words, **care seems to be strictly planned and divided** at Brooke department. **Mary does not seem responsible for any planning or evaluation** of care, but confers about when to do which tasks at most. She appreciates the clarity in planning and responsibilities. However, she appears to only have to carry out the prescribed tasks, and **does not seem to be triggered to reflect on the relation of these tasks with other parts of the work process or other processes in the organisation**.

*Internal acquisition and outcome level*

Mary has developed from someone who would first ask questions into someone who confers and acts. She performs a range of tasks relatively independently and routinely. She has learnt a little about syndromes at home A. She knows to draw the line at what she is not allowed to do while performing care: for example when she needs to ask a graduated colleague to perform wound care. She performs in line with home A's vision, and identifies with home A. She claims to have developed her own way. She has also completed 14 subassignments that were approved by Grace. She appears to have developed a **reasonable to high amount of work process knowledge**. Although she is able to narrate the activities of her shifts, she is not able to answer all questions about home A's work processes. In Grace's opinion it is a next point of attention for Mary to gain more in-depth knowledge about care. Mary has gradually developed more knowledge about home A by **assimilation**.

### 6.5.2 How can we describe Mary's WPL learning processes and related learning outcomes?

Table 6.25, 1-4 shows which specific influences play what role (positive or negative), to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is.

Table 6.25, 1-4: *Mary's learning processes, influencing factors and related learning outcomes*

#### 1. Personal basic care

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content + division of work + social: colleagues available for help and questions		Range of social interaction processes from perception to activity, and participation in the final phase	4: 'function' level
<b>Integration measures</b>	+ WPL curriculum and guidance (especially Jill): time taken to instruct and explain and have Mary practise; progress evaluation + plan of approach			
<b>Learner</b>	+ prior knowledge + motivation and personality: likes helping people and providing personal basic care		Assimilation	

#### 2. Interaction with residents and colleagues

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social: ample formal and informal opportunity for consultation; colleagues help each other to finish the work + work content: residents are able to engage in interaction		With residents: Perception to imitation; activity; participation in the final phase	With residents: 4: 'function' level With colleagues: 3: 'task' level
<b>Integration measures</b>	+ WPL curriculum and guidance: gradual introduction and accompanying Jill + plan of approach + subassignment 'planning of care' (interview with resident)	- guidance: only positive feedback (dealing with criticism?)	With colleagues: Especially activity and participation; perception and some transmission	
<b>Learner</b>	+ prior knowledge + motivation: likes interaction with the residents and her colleagues	- other: soft voice	Assimilation	

## 3. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ workload: low time pressure for Mary + social: help with assignment completion from different colleagues	- workload: time pressure for Grace and Jill?	Transmission, experience, activity and some participation	Has completed 14 subassignments, according to plan, at the end of the WPL period. Could be more reflective, however.
<b>Integration measures</b>	+ plan of approach; inclusion of assignment texts + WPL preparation + progress evaluation + guidance in terms of informing (such as introductory interview) and checking up on Mary; positive feedback + study hours + school feedback hour reports + other: clinical lesson about diabetes	- school feedback hours seen as social event by participating students, who are easily distracted.  - contradiction in guidance: only one progress evaluation with Grace and only one progress evaluation with Jill. No apparent stimulation of being more reflective (except as a recommendation for next WPL phase).		
<b>Learner</b>	+ prior knowledge + motivation + personality: sensitive to compliments, likes knowing where she stands (plan of approach) + other: help at home	- motivation: not all learning activities are experienced as purely enjoyable.	Assimilation	

## 4. Knowledge of the organisation and work process

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social: colleagues work together if required; are available for help + workload: time for communication + division of work: clear overview and organisation of tasks	- division of work rather strict	Full range of social interaction processes from perception to participation	Performs a range of tasks relatively independently and routinely, in line with home A's vision. Claims to have developed her own way and has completed 14 subassignments. Appears to have developed a reasonable to high amount of work process knowledge. Although able to narrate the activities of her shifts, not able to answer all questions about home A's work processes. Next point of attention is for her to gain more in-depth knowledge about care according to Grace.
<b>Integration measures</b>	+ WPL preparatory lesson + introductory interview with Grace + WPL curriculum and guidance: accompanying housekeeping and kitchen staff; accompanying Jill + other: clinical lesson about diabetes			
<b>Learner</b>	+ prior knowledge (volunteer work) + motivation: likes the work; shows an active attitude; asks questions	- personality: does not show a critical attitude	Assimilation	

Strong negative influences could hardly be discovered in Mary's case. Home A provides a beneficial learning environment socially and in terms of work content and the organisation of the work. Mary has thoroughly prepared for WPL, also regarding 'learning to learn', and she started with sufficient prior knowledge to begin and continue without problems. She is a motivated student, works actively on her learning process and likes interaction and helping people. She makes use of the plan of approach, the WPL preparatory lesson, and other integration measures well. Mary is also introduced to the work step by step at home A. She has the opportunity to observe, practise, and perform activities herself, only when she feels comfortable with them, while accompanying Jill. Mary likes knowing where she stands and therefore appreciates the clear work organisation at her department. She also receives help at home with her learning.

The social interaction processes proceed from processes with more supervision to processes that reflect more independence on Mary's part. Her learning processes are characterised by 'gradualness', and the internal acquisition processes are labelled as assimilation. The outcome levels show satisfactory to good outcomes.

Accommodation is often necessary because of a lack of prior knowledge, prior mislearning or a poorly connecting practice situation. These situations are non-existent or prevented in Mary's case. She should perhaps show a more critical attitude, however. Mary finds the assignments "*kind of nonsense, actually*" [si]. Despite having completed assignments, Mary does not feel she has applied theory to practice. Consequently, Mary's desire to know where she stands and her sensitivity to compliments may have positively influenced her learning attitude, while she would not go as far as being truly reflective for example in the school feedback hours or regarding home A's work processes. Mary has not discovered, for example, that her soft voice can be a problem in terms of communication with residents. Instead, she comments that she is "*not irritated*" [o] when residents do not understand her well, as if it is their fault only if they do not hear her. She only receives positive feedback, and her personal learning goal of 'being able to deal with criticism' is therefore difficult to realise. Grace and Jill only have one progress evaluation with Mary, which might also have reduced opportunities for stimulating reflection on Mary's part. While time pressure is not so high for Mary, time pressure may have prevented Grace and Jill from having more formal meetings with Mary. In addition, although Mary appreciates the clear organisation of the work, she has little scope for planning and evaluating tasks herself. In Grace's opinion, however, showing a more critical attitude and gaining more in-depth knowledge is a goal Mary should pursue in the next WPL period [o; da]. Mary is looking forward to participating in WPL in a nursing home with more care-dependent residents [o; si]. Then Mary will have to show that she is indeed able to demonstrate a critical attitude and deal with more complex problems herself, also in other contexts of care.

## 6.6 Tonya's case

### 6.6.1 Summary of Tonya's case

Before the conclusions of Tonya's case are drawn, we present her background and the four learning processes in summary displays. From these displays, we can infer how Tonya progressed and how different learning process elements as identified in the research model played a role. In Table 6.26, the background to Tonya's case is summarised. Tables 6.27 to 6.30 show the summaries of the learning process descriptions for 'personal basic care', 'interaction with residents and colleagues', 'learning to learn' and 'knowledge of the organisation and work process'.

Table 6.26: Tonya's background display

<b>Tonya (s-b pathway)</b>	<p>Female aged 21. Finished a secretarial course after having completed pre-vocational secondary education. Became inspired to follow a career in Care when she came in touch with carers because of her poor health. Aspires to become a maternity assistant. Although this course is not offered in the w-b pathway, as she would have liked it to be, she likes the s-b pathway now. As a result of her poor health, Tonya's sickness absence rate is high and she is also prevented from heavy lifting. She also works more slowly than others. Her WPL mentor, therefore, wonders whether Tonya is suited to Care.</p> <p>Thinks you learn a lot by first being taught theory and then participating in WPL. Comes across as a calm, thoughtful, interested and friendly person. Is a 'dreamer' ('diverger' - Kolb, 1984). Although elderly care is not her first choice, she enjoys participating in WPL at home C.</p>
<p>Learning environment</p> <p>- Training company</p>	<p>Home C is a somatic and psychogeriatric nursing home, accommodating more than 200 residents mostly with chronic syndromes and/or senile dementia.</p> <p>The day shift starts at 7 a.m. and ends at 3.30 p.m. Carers start with (individually) reading the residents' files and (together) reading the day schedule (residents' doctor's appointments are noted in this schedule, for example). Work planning is presented in the work list. Further activities are for example:</p> <ul style="list-style-type: none"> <li>• waking, bathing or showering and dressing residents (personal basic care)</li> <li>• helping residents with breakfast or taking them to the living-room to have breakfast</li> <li>• helping residents to the toilet</li> </ul> <p>Workload is high, especially in the morning.</p> <p>Home C aims to offer living and care the way residents wish it to be. Although residents should come first, Tonya thinks they should be given more personal attention than they are now. The aim is to offer more demand-led, small-scale care in the near future, when they will also move into a new building. Tonya's department - Lavender - accommodates around 30 residents, who are cared for by 3 pairs of carers in a regular day shift. Communication and cooperation among carers in Lavender and between departments is good, and Tonya feels she is part of the team. Tonya's WPL mentor characterises home C as student-minded.</p>

Table 6.26: *Tonya's background display (Continued)*

<p>- WPL curriculum and integration measures</p>	<p>Guidance: Layla as WPL mentor (works at department, but not formally as a carer); any graduated colleague as role model (varies each day). Lisa is WPL coordinator (also for home D). The model is assigned to guide the student in the performance of care tasks, check practical performance for the assignments and write reflections, while mentors assess assignments and check practical performance of more complex tasks. Joyce is Tonya's WPL teacher.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- One week in advance of WPL: WPL preparatory lesson at school. However, because of sickness absence Tonya does not participate.</li> <li>- First day of WPL: collective introduction by Lisa. Explanation of how WPL is organised. One study hour a day. Not allowed to administer medication.</li> <li>- First week of WPL: accompanying kitchen assistants to get to know residents and department. Assignments are explained and tasks are demonstrated as they should be carried out at home C. Tonya needs to prepare theoretically for assignments, make use of the protocols and a plan of approach and evaluate the applied plan with the role model, self-reflect and receive a reflection from the model. Layla checks the resulting report.</li> <li>- From second week of WPL: accompanying role model(s).</li> <li>- Progress evaluations are intended to take place every two or three weeks. After two weeks of WPL Tonya's first progress evaluation is scheduled; however, she is ill. The session is rescheduled to five weeks after start of WPL, but Tonya does receive a progress report from Layla.</li> <li>- One month after the start of WPL: first school feedback hour with Joyce.</li> <li>- Five weeks after the start of WPL: mid-term evaluation with Joyce and Layla.</li> <li>- More than nine weeks after the start of WPL: second school feedback hour with Joyce.</li> <li>- Ten weeks after the start of WPL: final evaluation with Joyce and Layla.</li> <li>- Ten weeks after the start of WPL: collective final evaluation at home C, with Lisa.</li> <li>- In total, Tonya has been absent for more than a work week because of her poor health.</li> </ul>
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Table 6.27: Summary of Tonya's Personal basic care process

*Prior knowledge, motivation, emotion and personality*

Tonya has **some prior knowledge** about bathing because she practised it at school, saw an instruction video and reviewed her book in advance. Real practice feels different, however. **In the beginning Tonya finds bathing difficult**, for example because she does not know how vulnerable residents are and because she thinks people might find it painful (because of their health conditions). After some practice it becomes less difficult. She still finds it **awkward**, however, **to bathe people without disposable gloves**, because she feels this is unhygienic. Although Tonya had not expected it in advance, **she really enjoys personal basic care** because of the interaction with the residents and their gratitude. **Although the work is hard**, Tonya feels **time passes quickly** during the mornings. She is **not afraid to ask** her colleagues or Layla **questions**.

*Social interaction and learning environment*

Tonya is first **given a demonstration** of how to bathe a resident **by Layla** and then **practises it under her supervision**. Then she starts **accompanying** other **graduated carers**. Her **independence increases** during the following weeks and she is eventually allowed to provide personal care to some residents alone, **although she remains supervised** by role models. During the observation day, Tonya and Gladys discuss how to care for residents and also discuss work progress with other carers. **Tonya asks questions** about residents' health conditions and personal basic care preferences. In the second **school feedback hour**, the students discuss being allowed to read the residents' personal files at their nursing homes, because some homes do not reveal these files to (s-b pathway) students. Tonya feels, however, that you need to know about the resident's particular health condition if you are going to provide care. **Perception, transmission, experience, imitation and activity** are related **social interaction processes**.

In the morning, the carers first read the **residents' files** to see whether there are changes in the health conditions of the residents they care for. Two carers are responsible for the personal basic care of around eight to ten residents. They are assumed to use the **protocols and personal basic care guidelines** of Home C. Residents requiring extra care are usually cared for by a pair of carers, while other residents are cared for by one carer. However, also in the latter case the other carer is in the same bedroom or an adjacent one, available to help if required. **Cooperation and consultation appear to occur frequently and pleasantly**. However, **there does not appear to be time to joke or talk** a lot about personal topics during the work. A little before 10 a.m., representatives from each department meet to discuss work progress and determine whether they need each other's help. Although the observation day is said to be **hectic**, the department ultimately does not need help to finish in time. Most residents have poor health conditions, but during the observation day most of **the residents Tonya cares for appear to be able to communicate with her**.

*Internal acquisition and outcome level*

Tonya is allowed to bathe and shower residents independently at the end of the period, but is still supervised by role models. She still makes some little mistakes sometimes. She does not feel she has become really good at anything: *"just normal in everything I think"*. However, she has completed the personal basic care subassignment and is allowed and able to provide personal basic care at the **'function' (4)** level.

Once Tonya has had some practice, bathing is no longer that difficult. But in the beginning, it is something that is really different from what she knows and had expected. And it is not just about bathing them; you have to think about a lot of other things as well, such as ergonomic working and the resident's privacy and comfort. It has made a big impression on her. This realisation and step forward appears to meet the criteria of **accommodation**. Once she has had some practice, Tonya further develops her competency in personal basic care by **assimilation**.

Table 6.28: Summary of Tonya's Interaction with residents and colleagues process

*Prior knowledge, motivation, emotion and personality*

Despite interaction lessons at school, **Tonya does not know how to engage in a conversation with the residents** at home C. Some residents also comment on her low work speed before she has explained this. **She does like interaction** with residents, however. Tonya finds it important that the residents feel comfortable at home C. She is **quiet and friendly** in her interaction with residents.

Tonya does not have any start-up interaction problems with colleagues; **she likes her colleagues** and feels they communicate well. Tonya is notified by one of her colleagues that she should take more initiative, however. **Layla notices and wonders about Tonya's low work speed before Tonya has explained it.**

*Social interaction and learning environment*

Lisa tells the students in the **collective introduction** that it is very important to **show respect to the residents**. In the week of **accompanying the kitchen assistants**, Tonya **has the opportunity to get to know** the department and its **residents**. She needs to read **residents' files** daily to learn whether anything has changed in the residents' health conditions. All of the particularities are also reported separately. Tonya keeps finding it difficult to talk to residents. Residents sometimes complain because they have to wait too long before they are helped or helped further, as a result of **high work pressure** at Lavender. In addition, there are **residents with communication problems** in the department, which makes interaction more difficult for Tonya. **Layla suggests** that Tonya read the residents' files, ask the main carer what people's interests are, view colleagues as an example, and also tell them something about herself. Although **Gladys**, the observation day role model, is very patient with and kind to Tonya, she is rather strict with some of the residents. It is unclear whether this is a particular strategy to deal with some residents. Although Layla also suggests that Tonya use other carers as an example, Tonya remains a very quiet, friendly carer with her own specific approach. During the observation day, she **does not copy Gladys's interaction approach** at all. The related **social interaction processes are perception, transmission, experience, and activity.**

**Layla suggests** that Tonya **explain her health condition** to colleagues so that they understand why she works slowly and is sick more often than others. Tonya needs to **work together with colleagues quite often to help residents requiring extra care**. In the **collective final evaluation, interaction with colleagues** and colleagues' performance **is also discussed. Perception, transmission, experience and activity are related social interaction processes.**

Work is planned by the **work list**, drawn up by the main carer. Colleagues also **read the day schedule together and discuss work progress** throughout the day. In addition, there is a **formal consultation every two weeks**. Two hours after the start of the shift, Tonya and her colleagues are allowed to drink something. However, during the observation day this is postponed because it is so hectic, while at 10 a.m. there is a coffee break. The **lunch break is also taken together**, although not with the entire department at the same time. The carers **talk about work much more than about personal topics**; also during the breaks on the observation day. **Work pressure** is a **recurring topic**. Still, **cooperation occurs pleasantly. Colleagues work together** to finish the work, **also over different departments.**

*Internal acquisition and outcome level*

Tonya shows respect to the residents and Layla thinks she has progressed in communication with residents. Although Tonya has completed the subassignments 'respectful interaction with residents' and 'working together with residents in care activities', the findings indicate that she still has some progress to make. We therefore conclude that she has realised this target at the **'task' (3)** level rather than the 'function' level. Tonya has had the opportunity to get to know residents by accompanying the kitchen assistants before starting with care. Still, she finds engaging in conversations very difficult in the beginning. Apparently, her prior knowledge is not sufficient and she requires feedback and suggestions from Layla to improve. These findings point to **accommodation**. Tonya is learning to **further improve** and engage in more profound conversations with residents, **by assimilation.**

Tonya has become able to discuss work with colleagues, express her opinion, take the initiative, and indicate her limits regarding her health condition. She has also completed the subassignments 'being comradely towards colleagues' and 'keeping one's work and private life separate'. She has thus realised this target at the **'function' (4)** level. She appears to have developed regarding this target without problems by **assimilation.**

Table 6.29: Summary of Tonya's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Tonya's **prior knowledge** is **not entirely satisfactory**, because she does not know how to write her school feedback hour report (despite the **workbook** explanation), for example. She has, however, **finished a plan of approach in advance** and **knows** from the preparatory lessons **how assignments need to be completed**.

Tonya is **not afraid to ask questions** about learning, is **open to criticism** and **shows interest and attention** during integration measure meetings, such as the school feedback hours. She gets a little **nervous**, however, when another student reports in the first school feedback hour that she has already finished a lot of assignments. According to Layla, Tonya is **able to learn fast**. Although Tonya reports showing initiative in the work as a personal learning goal, Layla reports **learning behaviour** and **taking the initiative to hand in a specific plan of approach** at the start of each working day, **as personal learning goals** for Tonya. In addition, Tonya **should become able to communicate better with the residents** and **communicate her low work speed** to colleagues and residents.

*Social interaction and learning environment*

Already in the **collective introduction**, Lisa discusses learning procedures. **Layla also explains** in the beginning about the **assignment approach** that Tonya should follow, and Tonya has made notes. **Tonya needs to write a specific plan of approach** for what she wants to learn **every day**, after which her model checks her performance, and writes a reflection. Based on this reflection together with the written assignment completion, Layla can determine whether Tonya has passed the assignment. Layla reminds Tonya of this approach in the **progress reports**. Tonya was indeed observed to hand over a plan of approach about her learning goal for the observation day to Gladys at the start of the day, and Gladys discussed progress regarding this goal with Tonya afterwards. **It is taken into account** that students have to be allowed the **opportunity to carry out the tasks that they want to learn about**. During the observation day, **Gladys provides instruction as well as explanation**, gives Tonya the **opportunity to practise** several times, and gives her **positive feedback** as well, despite time pressure. Tonya's first **progress evaluation** is cancelled because Tonya is sick. Tonya does receive a **report about her progress**, however. **Layla** has made sure that she **talks about progress** with Tonya almost **every week**. **Layla appears to take the progress reports and assessing the assignments very seriously**. Tonya has also participated in **two clinical lessons**, which she found very interesting.

Tonya thinks **guidance** by "*everyone*" is **good**. She appreciates the reflections and the fact that **Layla knows what she is talking about** because she has experience with care. There are no indications, however, that the learning style test result has been used as input for guidance throughout WPL. In addition, **reflections are often forgotten** by Tonya's colleagues probably **because of lack of time**. Tonya has had a lot of **different role models**. Even third-year students in the department have acted as Tonya's role model. Tonya is not afraid to ask any model for more explanation if required and has not experienced any problems with this.

Tonya has had **contact with Joyce during the mid- term and final evaluations and the school feedback hours**. Layla filled out the evaluation forms. In the school feedback hours, three to four students discuss with Joyce, for example, problematic situations with residents, progress in assignment completion and what students are allowed to do. **The students pay attention to each other's accounts** and only start talking a little more informally at the end. **In the first feedback hour, Joyce uses the related reports as input**. She has not yet read the reports in advance of the second one, however. Tonya finds the **school feedback hours useful** to hear from others about their WPL. Tonya has 'learnt to learn' by the **social interaction processes of perception, transmission, experience, activity, and participation**.

*Internal acquisition and outcome level*

Tonya has progressed regarding her personal learning goals. Layla thinks Tonya's assignment elaborations could use a little more depth. She urges Tonya to return for an afternoon to hand in these elaborations at the end of the period. Layla does not want to approve the 'interaction' assignments yet because this is an attainment target students need to pay attention to throughout WPL in their entire course. At the final evaluation, Layla reports that Tonya has passed the assignments of the entire 'domestic care' cluster, the first six subassignments of the 'basic care' cluster, and four 'interaction' (with residents and colleagues) sub assignments. She has realised her plan of approach.

Although Tonya's prior knowledge is not entirely satisfactorily, she picks up the instructions given to her throughout WPL well. Some **accommodation** and **reflection** is likely to have occurred for example when Tonya learns during the school feedback hour that she did not complete the report correctly or when she finds out what personal learning goals really are or when Layla tells her that her assignment elaborations need more depth. She further appears to have developed her ability to learn through **assimilation**.

Table 6.30: Summary of Tonya's Knowledge of the organisation and work process

*Prior knowledge, motivation, emotion and personality*

Tonya has **no idea what to expect** from this WPL period before she starts, **although** she feels afterwards that **what she has learnt at school was sufficient** to start at home C. **She is a little too passive** during the work in the beginning. Tonya **never expected to like nursing home care so much**. At the end of the period she has even applied for a vacation job at home C. However, she **still wants to become a maternity assistant**. Tonya's **low work speed**, on which residents also comment, is noticed early on by Layla. She tells Tonya to explain her poor health condition herself to colleagues and residents. Tonya finds it **remarkable** that her **colleagues react with resignation when residents pass away, because she is quite shocked** by it. Tonya **does not like the 'smell'** of the nursing home **and does not like excretion support**. She finds **'planning of care'** a **really difficult** subject. When Tonya does not feel ill, she shows an **active attitude** at work.

*Social interaction and learning environment*

Tonya **gradually works more independently, but remains supervised**. She has walked around the entire home once to find out that a lot of people work and live at home C. However, she only meets people of other departments when they help Lavender department out to finish the work. Tonya discovers that **different colleagues have different approaches**. **She asks questions about this** and feels that she should apply the approach that most people have. **She also helps kitchen assistants or the domestic assistants sometimes**. Tonya **has also worked some late shifts**. She also **participates in a clinical lesson** about cerebrovascular accidents (stroke) **and in one** about ascites. During the **first school feedback hour**, Tonya raises a 'frightening' situation she experienced with a resident who had a seizure, which Tonya did not recognise. She also raises the question of not being allowed to administer medication; she finds this *"very strange"*. Joyce explains about the related responsibility for medication. In the **second school feedback hour**, **Joyce asks** whether Tonya is still afraid as a result of the seizure situation she talked about last time. Tonya responds that **in general, she is frightened to enter a room with residents whose health has greatly deteriorated or is deteriorating fast**. On the other hand, she reports in the school feedback hour that she has learnt much from this situation, because she observes residents better now and calls a graduated carer for help when she thinks a resident is not well. **Several other situations about residents' health are discussed in both of the school feedback hours**. In the **collective final evaluation**, the students are asked for example what they think about care at home C. Tonya thinks the residents are looking forward to the changes in the near future promising more private accommodation and more demand-led care. **All social interaction processes have been involved**.

**Work content allows** Tonya to **come across a variety of residents regarding communication abilities as well as physical conditions**. **Carers talk about work a lot** during work as well as breaks. **Topics are for example** the (high) sickness absence rate and (the resulting) **workload**. There is a **particulars file**, which gives an overview of all the particulars of a department. However, when a particular resident is cared for, the carer needs to review the residents' file. In the **work list**, the work planning is written down. This includes which tasks need to be carried out, who the main carer of the department is, who carries out specific, more complex tasks and the like. In the **day schedule**, particular tasks are written down, such as residents' doctor's appointments. In the central part of the department, there is a **sign saying who is working that day**. In addition, there is a **formal consultation every two weeks**. The main carer is responsible for making the work list. Management is taken care of by the **department head**. Mistakes are discussed with the carer concerned and with the main carer in the department. In other words, **care is rather strictly planned and organised**. Although Tonya is allowed to perform personal basic care independently, she **does not have any responsibility for the planning or evaluation of care**. Others usually tell her who to care for.

*Internal acquisition and outcome level*

Layla thinks Tonya has learnt a lot in only ten weeks. Tonya has developed insight, shows initiative and knows her limits, although she herself does not really feel she works easily yet. She has also developed stamina and has learnt much about herself. Tonya is able to report the activities of her day shift by heart and has learnt a lot of things about her department. Although she still finds 'planning of care' a difficult subject, it has become more concrete to her. She has become more familiar with a variety of syndromes, also because of the clinical lessons. On the mid-term evaluation form Layla has noted that the 'problem-solving skills' heading is 'not applicable'; however on the final evaluation form she writes that *"Tonya shares in the thinking in the department at her level" (...)*, she *"has developed insight regarding problem-solving skills"*. In addition, Tonya has completed several assignments, showing synthesis of practical and theoretical knowledge. On the other hand, Layla thinks her elaborations could have used more depth. In addition, Tonya knows little of other departments and the way in which other departments - also other than care - are interrelated. Still, Tonya has developed at least a **reasonable amount of work process knowledge**.

Tonya is a person who observes, thinks and asks questions. On the (observation) day she calls out *"Oh, is that how you do this!"* while observing Gladys to learn how to change the catheter bag. She has also compared the approaches of colleagues. The data show instances of **accommodation** and **reflection** in addition to **assimilation**.

6.6.2 How can we describe Tonya’s WPL learning processes and related learning outcomes?

Table 6.31, 1-4 shows which specific influences play what role (positive or negative), to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is.

Table 6.31 1-4: Tonya’s learning processes, influencing factors and related learning outcomes

1. Personal basic care

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content: most residents able to communicate + division of work: residents’ files, protocols and guidelines + social: cooperation and consultation among carers		Range of social interaction processes from perception to activity	4: ‘function’ level
<b>Integration measures</b>	+ WPL curriculum and guidance: such as demonstration by Layla, accompanying carers; remains supervised			
<b>Learner</b>	+ some prior knowledge + motivation: really enjoys personal basic care; not afraid to ask questions		Accommodation - assimilation	

2. Interaction with residents and colleagues

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content: residents’ files + social + division of work	- work content: some residents with communication problems - workload: time pressure	With residents: Perception, transmission, experience, activity  With colleagues: Perception, transmission, experience, activity	With residents: 3: ‘task level’ With colleagues: 4: ‘function’ level
<b>Integration measures</b>	+ collective introduction + WPL curriculum: accompanying kitchen employees in first week to get to know residents and department + guidance: Layla’s suggestions			
<b>Learner</b>	+ motivation: likes interaction with residents; likes colleagues + personality: calm and friendly	- prior knowledge/personality: difficulties with talking to residents - other: low work speed (health condition) in beginning - personality: lack of initiative	With residents: Accommodation – assimilation With colleagues: Assimilation	

## 3. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content: opportunity to perform practical aspects of assignments	- workload: time pressure (reflections)	Full range of social interaction processes from perception to participation	Has completed 15 sub-assignments, according to plan, at the end of the WPL period. Her elaborations could use more depth, however: Layla has her elaborate more extensively at the end to have the assignments passed.
<b>Integration measures</b>	+ collective introduction + guidance: (Layla) assignment explanation and progress evaluations and reports; regularity; reflections; instruction and explanation during practical performance (Gladys) + study hours + personal learning goals: mind learning behaviour; take the initiative to learn; communication + school feedback hours + other: clinical lessons			
<b>Learner</b>	+ prior knowledge to a certain extent + motivation: shows interest and attention during learning activities + personality: open to criticism; not afraid to ask questions about learning; nervousness about another student's progress in assignments; able to learn fast	- lack of prior knowledge: does not know how to write school feedback hour report	Some accommodation and reflection, assimilation	

## 4. Knowledge of the organisation and work process

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content; also helps non-carers sometimes; has also worked late shifts + social: frequent consultation + division of work: organised well	- division of work: although organised well, there might be too little scope for Tonya to plan and evaluate care	Full range of social interaction processes from perception to activity	Has developed insight, shows initiative and knows her limits. Is able to describe the activities of her day shift and has learnt a lot about her department. 'Planning of care' has become more concrete to her. Has also become more familiar with a variety of syndromes. Shares in the thinking in the department and is developing insight regarding problem-solving skills. Has also completed several assignments. Their elaborations could, however, have used more depth and Tonya knows little of other departments and the way in which they are interrelated. Still, has developed at least a reasonable amount of work process knowledge.
<b>Integration measures</b>	+ WPL curriculum: gradual introduction and working more independently; remains supervised + other: clinical lessons + school feedback hours			
<b>Learner</b>	+ prior knowledge sufficient + motivation and personality: active attitude when not ill; asks questions; likes work much more than expected	- personality: in the beginning too little initiative; fear of (near) death of residents	Some accommodation and reflection, assimilation	

Home C appears to provide a beneficial learning environment in terms of work content, social atmosphere and division of work. WPL is taken very seriously in home C, with the collective introduction, gradual introduction into the department and the opportunity for

students to carry out the tasks in relation to their assignments. Joyce confirms this experience with home C [ti]. Time pressure prevented Tonya's colleagues from providing all of the reflections; however, Layla monitors Tonya closely and provides feedback regularly and consistently. Only the learning style test result does not seem to have been used.

Tonya is a calm, thoughtful and friendly person who enjoys her WPL in elderly care even though she wants to become a maternity assistant. She is in poor health, but shows an active attitude, asking questions about the work and about learning when she feels well. Tonya makes use of the integration measures and does not complain about the assignments. Problem situations are discussed in the school feedback hours, and in the second school feedback hour Joyce follows up on a difficult situation that Tonya raised in the first one. Despite her sickness absence, Tonya completes the assignments according to plan, impressing Layla. She has progressed to satisfactory to good outcome levels mostly by combinations of accommodation and assimilation, and sometimes reflection. The social interaction processes range from the more instructive processes, such as transmission, to the less instructive ones such as activity. Tonya remains supervised until the end of the period, although more loosely towards the end.

On the other hand, Tonya has little scope to plan or evaluate care herself at Lavender: until the end she remains supervised by others, and she does not really become reflective about home C's work processes. While she has compared approaches of colleagues, she decides to adopt the approach that is applied most instead of the one she feels most comfortable with. There are no indications of her providing feedback to colleagues either. She also expresses some fear regarding residents who are in the end phase of their lives; she is scared that they might be dead when she needs to enter their room. She seems to want to keep her distance from this aspect of elderly care. Tonya's elaborations of the assignments could also use more depth, according to Layla. However, with having realised the examined learning outcomes at the indicated levels, she appears to have built up a good basis for her next WPL period. She also sees the relation between school and work; it is not entirely the same, but it is not completely different either, she feels: "*I think that a lot of care as we learnt it at school is the same in practice*" (...) *Yet, there are many situations in which you have to do it a little bit differently from how you learnt it at school*" [da], she writes in her school feedback hour report.

Tonya has participated in her WPL in the area of elderly care with more pleasure than she had expected in advance [si]. However, she is still ambitious to become a maternity assistant [o; si]. She discusses this with the WPL coordinator Lisa in the collective final evaluation. Lisa informs Tonya that you have to learn a lot for the course of maternity assistant. Tonya would even like to proceed to the level of midwife (level 4). Even though this might be hard and be subject to irregular shifts, she would love to have her own practice [o]. Tonya reports she will enjoy returning to school after the holidays [o].

## 6.7 *Cross-case comparisons and conclusions Care*

### 6.7.1 How can we describe WPL learning processes and related learning outcomes in the Care cases?

#### Learning processes and their influences in Care

We have described per case and per learning outcome which influences from the learning environment and the learner were relevant and what the resulting types of social interaction processes, types of internal acquisition processes and related outcome levels were. These results are difficult to put into one overall 'Care cases conclusions' table, because the types of learning processes that occur depend on the strength and combination of elements. Although the elements in their positive form, for example 'good social atmosphere', generally also have a positive influence on the learning process, the influence may turn out differently than expected because of other influences. For example, Tonya has some prior knowledge and personality issues regarding 'interaction with residents and colleagues'; however, she is motivated and is guided well, and therefore progresses satisfactorily. There are, however, recurring elements that influence the learning process - whether positively or negatively - which we can present in the research model as shown in Figure 6.1.

In the next two subsections we discuss the recurring influences and their effect on the learning processes. Subsequently, we go into the types of learning processes and the outcome levels that were realised in the Care cases.

#### Learning environment Care cases

##### *Training company*

The training company influences as identified in the research model could be recognised in the results. Work content appears to be representative of what students are intended to learn in this phase in relation to the selection of attainment targets studied: 'personal basic care' and 'interaction with residents and colleagues'. Work content therefore usually has a positive influence, also on 'knowledge of the organisation and work process'. Sometimes the lack of residents' response or the large extent of complex residents' conditions might make the work rather difficult, however. In most cases, the social atmosphere is pleasant and an important positive influence on learning. In Claire's case, however, the individualistic work culture appears to have a negative influence on learning. The division of work influence can be negative if students have little scope for planning and evaluation themselves. On the other hand, a clear organisation of work is also helpful to the students. High workload in most cases has a negative influence, although some workload and time pressure gives students the opportunity to learn how to work under these circumstances. In Bonnie's case (home A), time pressure is not so high and time can be taken for demonstration and instruction. In Tonya's case, the workload is high; nevertheless, guidance is intensive and she has the opportunity to work on her learning process.



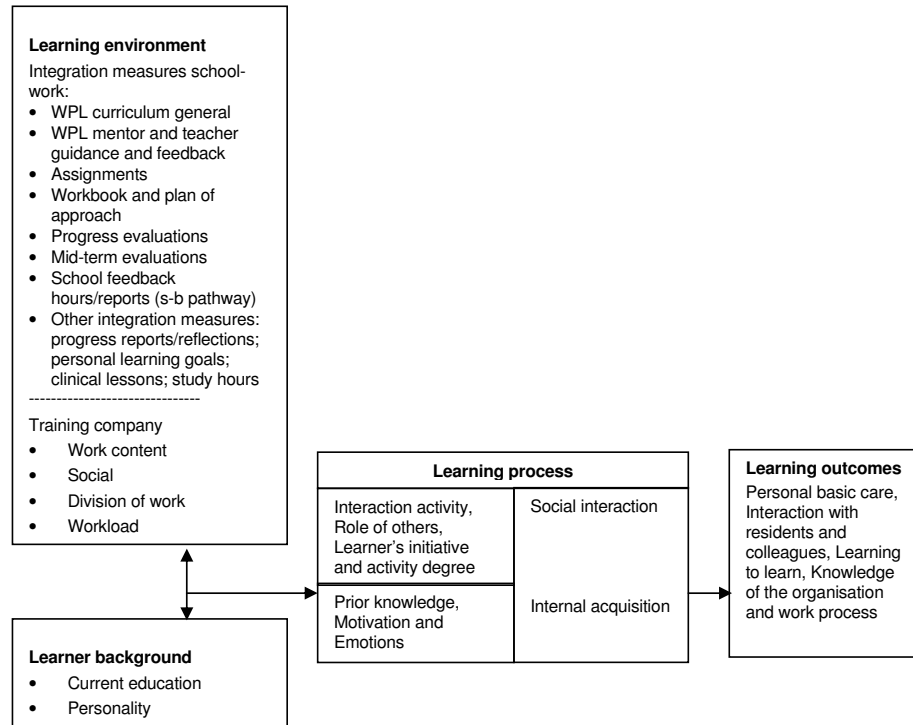


Figure 6.1: Influences on the learning process for the Care cases in relation to the research model

#### *WPL curriculum and integration measures*

Most students' WPL curriculum consists of the student being introduced (individually and possibly also collectively) to the workplace and accompanying graduated carers and gradually working more independently. Some students (Tonya, Mary) first accompanied housekeeping or kitchen employees to get to know the department before they started with care. S-b pathway students are planned supernumerary throughout WPL and Anne and Claire were also planned supernumerary until their second and third week respectively. Most students appreciate the gradually increasing independence in their WPL curriculum, which has a positive influence.

The mentor job is arranged differently practically in each home. In Anne and Claire's case, the mentors are not working as carers in the students' department. In Bonnie (home A), Mary and Dennis's case, the mentors are also part-time carers. In Tonya's case, the mentor is working in the department - regularly helping the carers out - but is not a carer by job description. Home C (Tonya) and D (Claire) have a training coordinator in addition to the mentors, who leads the collective introductions and is responsible for the

coordination and organisation of training within these homes. Although there are some instances of good guidance activities in the data, guidance is inconsistent in nearly all cases, influencing learning negatively. Four out of the six students were given a learning style test in the beginning of their WPL, for example; however, the data do not show use of the results. Guidance appears most consistent in Tonya's case and Bonnie's second case. Not working in the department (Anne, Claire, Bonnie's initial case) or being responsible for care too (Mary, Dennis's case), might prevent an overview of guidance or put too much time pressure on the mentors.

Students do not often have a regular role model. Sometimes (Tonya's case) any of the graduated carers, or even third-year students, could be a role model, varying each day. Even where a regular role model has been appointed such as in Anne's case, other graduated colleagues also act as a role model, for example if the regular role model is absent. Although Claire's mentors think a regular role-model approach would be better, Tonya's case shows that variation in models does not have to be a problem. Although the curriculum description (Chapter 5) shows that "*teachers are supposed to guide the students in close cooperation with the WPL mentor*", most students have little to very little contact with their WPL teacher.

Progress evaluations are generally used to discuss progress and any problems. In this relation, 'reflections' or 'progress reports' are often used to provide the student with feedback on performance and as input for the progress evaluations. These measures can be identified as 'other' integration measures. They are mostly perceived as useful. However, the progress evaluations and related reports are not always applied regularly or consistently enough because of time pressure among colleagues and the WPL mentor.

While some integration measures have a positive influence, such as the school feedback hours or the school feedback hour reports and the study hours in some cases, their use generally deviates greatly from what was intended. Bonnie and Mary view the school feedback hours as social events, for example. Assignments are generally perceived as very difficult. At home B, students received collective assignment explanation after two weeks. This did not really help reduce the difficulty of the assignments for the students concerned, however. Different guidelines apply for completing the assignments per home, incidentally. In Dennis's case, for example, May (WPL mentor) wants to check performance related to assignment completion. Anne, however, does not need to complete everything in writing and Alan, her role model, checks performance rather than Andrew (WPL mentor). In home C Tonya needs to follow a rather strict protocol for learning and assignment completion, explained, monitored and checked critically by Layla (WPL mentor).

The plan of approach is also hardly ever used as intended. While Anne commented in this regard that when "*something comes in between*" the plan no longer works, Mary has shown that it is possible to apply the plan. Most of the tasks related to the 'aims and

objectives' for this WPL phase recur daily and, if indicated beforehand and colleagues are open to it, it should be possible to plan assignment completion to some extent. Mary also included the assignment texts in her plan of approach, by which she simplified the workbook, assignment book and plan of approach to one clear overview of what she had to do. All students have had a mid-term evaluation in the period studied, which in two cases had a positive influence, only Claire's took place later and therefore appeared to miss the point.

Working on 'personal' learning goals, although formulated mostly by the mentors, does have a positive influence for example in Anne's case ('becoming calmer'). In Bonnie's case, working on her communication skills especially with colleagues is the main goal and although she has not progressed entirely to a satisfactory level yet, the goal does help her develop. Some students (such as Tonya) participated in a clinical lesson at their nursing home, which they found useful. Consequently, the identified 'other' integration measures can be a positive supplement to the existing measures.

#### Learners' background and prior knowledge, motivation and emotion Care cases

Students' previous education ranges from the previous Care course level to a secretarial course and their ages range from 17 to 21. These characteristics do not seem to work as expected, however. Despite her previous Care course, Claire, for example, does not progress more than Tonya, who has previously finished a secretarial course. Mary does not have any previous care education and is still young; however she progresses well. The 'current education' characteristic in terms of pathway is discussed in subsection 6.7.2. Particular personality aspects turn out to be rather important. Bonnie and Claire's shyness and insecurity for example, are very influential in a negative way, as is Dennis's laziness.

Specific prior knowledge or lack thereof is also identified as an influence. Regarding 'learning to learn', for example, Anne, Bonnie, Claire and Dennis had significant prior knowledge problems, despite preparation opportunities (Bonnie) or previous WPL experience or relevant work experience (Anne, Dennis and Claire). Specific motivation for learning 'personal basic care' and 'interaction' is generally high. Hardly any of the students are motivated to pay explicit attention to their 'learning to learn' process, however. At school, lessons are teacher-centred and in WPL students suddenly need to plan and direct the learning themselves. The results show that most students are not capable of doing so. Although at least s-b pathway students receive a workbook and make a plan of approach as a guideline for WPL, these seem to be difficult to use. Mona comments on the students' attitude regarding 'learning to learn' and the plan of approach. Although the s-b pathway students had ten preparatory lessons to finish the plan and prepare for making assignments: "*then they did not always feel like it so, well, they didn't do it*" [ti].

### Learning processes and outcomes Care cases

Learning indeed depends on the cognitive, emotional and social concurrently. For example, Anne is motivated to learn how to provide 'personal basic care' and progresses satisfactorily regarding this outcome, because she is motivated and because she has the opportunity to accompany, observe and imitate others in a pleasant social atmosphere. Her initial lack of prior knowledge helps her realise that school and practice are different and that she, at least partly, needs to relearn how to bathe people, for example. While Claire is continuing from level 2 and has exemptions, she is so shy and insecure that she still experiences problems for example regarding 'interaction with colleagues' and the social learning environment does not seem supportive, preventing her from making satisfactory progress. Each combination of specific motivation and emotion, prior knowledge and personality aspects, with learning environment aspects, leads to a specific internal acquisition and related outcome level. Consequently, we cannot conclude that a particular category of learning process is always learnt through a particular type of internal acquisition, or that a particular student always learns in a particular way. Regarding 'learning to learn', however, 'non-learning' in the form of resistance or defence occurs in nearly all cases. This means that those students hardly progressed or did not progress at all regarding 'learning to learn' and are going to need help if they want to overcome this. In turn, their lack of progress regarding 'learning to learn' raises doubts about the other learning outcomes.

Regarding social interaction processes, we can conclude that nearly all social interaction processes are usually involved throughout WPL: starting with the more instructive processes such as transmission and imitation, and moving towards the more independent processes such as activity and participation. This means that learning does not merely take place by doing or by simply participating at work: transmission also plays a significant role, even though students are not always receptive. It should perhaps even play a larger role in most of the cases, at least given the disappointing 'learning to learn' results.

Although the outcome levels of most students' learning processes as assessed by means of the general framework (De Jong, 1998) and verbal comments might seem reasonable to good, the poor 'learning to learn' results raise doubts about the other categories of learning outcomes. Except in Mary and Tonya's case, we wonder whether the outcomes for which no assignments were completed were really realised that well. Precisely because of the lack of assignment completion, we did not have a means of reliable assessment. This lack of assignment completion also influences the students' development of 'work process knowledge'. Anne and Dennis, for example, show that they have learnt much about their nursing home and about the consequences of the performance of their tasks for others or for other parts of their own work process. However, synthesis of theoretical knowledge with their practical knowledge, which is one of the criteria of work process knowledge (Boreham, 2004) could be improved at the least. Although on the one hand we could perceive the development of 'knowledge of the organisation and work process' as something 'extra' because it is not part of the

attainment targets, students should actually complete assignments anyway and their 'knowledge of the organisation and work process' would probably benefit.

A small minority of the internal acquisition processes appears to reflect something of the 'balance' related to a profitable development process (section 2.4.2). Although some students, such as Mary, may develop to a relatively high level with assimilation only, the question remains whether these students will also function well in other care contexts: transfer possibilities may be poorer in the case of mere assimilation (see section 2.4.1).

We next wish to answer the question about differences in terms of learning processes and outcomes regarding the w-b pathway and the s-b pathway.

#### 6.7.2 How can we distinguish the work-based pathway from the school-based pathway in terms of WPL learning processes and related outcomes in the Care cases?

##### *Learning environment*

The w-b pathway students' (Anne, Claire and Dennis) WPL curriculum and integration measures are different from those of the s-b pathway students (Bonnie, Mary and Tonya). The w-b pathway students start with an orientation period in advance of actual WPL. Although they are generally planned supernumerary for a couple of weeks once WPL has started, they have an employee status right away. They lack integration measures such as the workbook and study hours. According to the curriculum description (5.2.5) w-b pathway students are also supposed to schedule school feedback hours with their WPL teacher; this did not, however, happen. Less attention appears to be paid to their learning processes than in the cases of the s-b pathway students who work in the same nursing homes. They have very little contact with their WPL teacher, because they have no school feedback hours and less school is scheduled than intended in the 'two-week' school period. While all the s-b pathway students have had their mid-term evaluation and final evaluation, which are also contact moments with the WPL teacher, within the period of the study, Claire has not even only had her mid-term evaluation within this period.

##### *Learners*

Anne, Claire and Dennis (w-b) are also generally different from Bonnie, Mary and Tonya (s-b) as people. The s-b pathway students like school better or much better than do the w-b pathway students, and generally know more about 'learning to learn' in advance. All three w-b pathway students have more relevant prior work experience or previous education.

##### *Learning processes and outcomes*

W-b pathway students work or are expected to work more independently than s-b pathway students within the same period: in terms of social interaction processes, 'participation' generally occurs slightly less in the s-b pathway cases. Perhaps w-b pathway students are expected to be able to function independently too soon. In terms of internal acquisition, Dennis and Claire learn more by assimilation. Anne, however, also

learns by accommodation and reflection. While Anne is someone who asks questions, including critical ones, Dennis and Claire work independently relatively early and do not seem to be triggered to ask critical questions. Claire hardly works together with others, and therefore has little opportunity to compare and reflect: she does not take this opportunity herself either. Dennis does not receive much explicit guidance either.

Outcome levels do not generally differ between the students from the different pathways. Although the w-b pathway students may have a slightly higher 'score' on the selected attainment targets and have developed a reasonable to high amount of work process knowledge, these students had a head start because of their more relevant previous education and prior work experience. In addition, Bonnie lowers the s-b pathway students' 'score' because she starts with a significant disadvantage as a person. The w-b pathway students' work process knowledge also leaves something to be desired. Mary and Tonya have also developed a reasonable to high amount of work process knowledge and have at least shown application of theory by completing assignments.

In terms of 'learning to learn', the w-b pathway students especially have problems. They seem generally more motivated for working than for learning. Their high motivation for the work and prior work experience may have a distorting influence, however. Their lack of progress regarding 'learning to learn', implying also lack of assignment completion regarding the selected attainment targets, might be a warning that, in the long run, they will not be able to keep up. In other words, the 'current education' element in terms of pathway seems to have some influence which can be explained by the difference in WPL curriculum and type of learners. The differences between the groups of students are summarised in Table 6.32. However, we cannot unquestionably distinguish the w-b pathway students and the s-b pathway students from each other in terms of learning processes and outcomes, because there are exceptions in both groups of students. The number of students per pathway is too small for drawing firm conclusions in this respect.

Table 6.32: *Differences between w-b pathway students and s-b pathway students in the Care study*

Elements	W-b pathway (Anne, Claire, Dennis)	S-b pathway (Bonnie, Mary, Tonya)
WPL curriculum and integration measures	Orientation period in advance and introductory meetings at start	Introductory meetings at start
	Employee status Generally planned supernumerary for some weeks	Student status Planned supernumerary for entire WPL period
	No workbook, study hours or school feedback hours; only mid-term evaluation within period studied (however, later for Claire): little contact with WPL teacher	Workbook and study hours. More contact with WPL teacher because of school feedback hours, mid-term and final evaluation within period studied
Learners	More relevant previous education/prior work experience	Like school better or much better. More prior knowledge regarding 'learning to learn'
Social interaction, internal acquisition and outcome levels	Slightly more participation; only 'non-learning' regarding 'learning to learn' Generally satisfactory outcome levels, except for 'learning to learn'	Slightly more imitation  Generally satisfactory outcome levels (except in Bonnie's case)

## Chapter 7

### Retail cases

#### 7.1 Introduction

Analogous to the Care case studies, we have studied six cases from the SVE Retail course. Although the basic approach was the same for both sectors, we did adjust design and instrumentation for the Retail cases to a certain extent to improve data collection in a practical sense. This is explained in section 7.2 together with any analysis modifications. We present the general WPL curriculum description for all Retail cases in section 7.3, before a brief explanation of the case description structure is given in 7.4. The case summaries and conclusions are presented in 7.5 to 7.10. We start with Will's case in section 7.5, followed by Zack (7.6), Thomas (7.7), Victor (7.8), Rachel (7.9), and Steve's case (7.10). The full descriptions are presented on the accompanying CD-ROM. In section 7.11 the cross-case conclusions are presented.

#### 7.2 Design specifications and analysis Retail cases

##### 7.2.1 Case selection

For the second set of case studies, we aimed to select three students from each pathway from the same SVE level (3) and the same ROC as in Care but from a different sector. We selected Retail because, on the one hand, this is different from Care in the sense that it is labelled as 'commercial' instead of 'service'. On the other hand, interaction with clients is important in Retail, which is also the case in Care. This partial similarity serves comparison of the cases, while differences in results can be explained by the partial differences. In addition, occupations with a large proportion of interactions with others are better suited to observations, because the greater part of the work is supported by verbal activity. However, because of the flexibility in the Retail course, it was difficult to find three students from each pathway from the same year, who were following the same course at the same level. Because of the modular design of the course, students from the same year could be working on different modules, depending on the pace at which they were studying. Ultimately, we selected three students from each pathway whom the teachers indicated as the most comparable students. They had all completed their first year, and some were approaching the completion of their course. The students were all beyond level 2; some were aiming to complete level 4 and others were following the course at level 3.

We wanted to study the Retail cases for a period comparable to that of the Care cases: around ten weeks. In Retail, s-b pathway students start the period regarding a particular module with a full week of WPL, followed by around ten weeks in which one WPL day is alternated with school. The period is also concluded with a full week of WPL. Such a period (11 weeks) was selected as the period of study. At the time of data collection, the s-b pathway students started with a new period at the end of March 2005. The period of data collection was extended by a few weeks to be able to conduct all the required interviews. After this period, the summer holidays started. This means that the data collection period took place from the end of March until the end of June 2005. The teachers, however, were interviewed in the first week of July, 2005. Pairs consisting of a w-b pathway student and an s-b pathway student per training company were not available. Therefore, six different training companies were involved. In this sector at this school, WPL teachers from both pathways are equally involved in guidance in terms of formal meetings. We interviewed the teachers of both the w-b pathway students and the s-b pathway students. Table 7.1 provides an overview of the cases in terms of students, their training companies, WPL mentors and WPL teachers.

Table 7.1: *Participants and shops*<sup>1</sup>

S-b pathway	W-b pathway
Student: Will Shop U Mentor Craig, Teacher Vincent	Student: Victor Shop Y Mentor Arthur, Teacher Nick
Student: Zack Shop T Mentor Leo, Teacher Vincent	Student: Rachel Shop X Mentor Joan, Teacher Nick
Student: Thomas Shop V Mentor George, Teacher Vincent	Student: Steve Shop Z Mentor Mark, Teacher Paula

### 7.2.2 Adjusted data collection contact

Beforehand we had planned to observe a progress evaluation, a mid-term and a final evaluation and part of a working day. We had also planned to interview the students, the WPL mentors and the WPL teachers. In Retail it turned out from acquaintance with the students that students and mentors do not generally have formal progress evaluations: students can mostly ask their questions ad hoc. In addition, they do not have a mid-term evaluation or final evaluation in the way that Care students do. Progress is assessed in direct relation to the module the students have worked on in a particular period. The WPL teacher visits the training company and has an examination meeting about the module (cluster of attainment targets) with the student, in the presence of the WPL mentor. We planned to observe one such examination meeting per case instead of the evaluations in the Care cases. We also planned to analyse the assignment book. In Retail, an assignment book concerns one cluster of attainment targets (such as 'Retail trade marketing'). This

<sup>1</sup> All names are pseudonyms, to preserve anonymity.



book appears to be structured in such a way that a workbook, as in the Care cases, becomes redundant, because preparation, a plan of approach (to be completed by the student), the assignments, and assessment forms are all included.

In the Care cases, the interviews at the end of the study were crucial for the reconstruction of the learning processes. Even though a lot of information was gathered by combining the interviews with the observations, there were some disadvantages to conducting the interviews at the end. First of all, the interviews were lengthy, because students had a lot to relate at the end of the period studied. This either made it difficult to discuss everything, or it took longer than the scheduled time. Although the observations served as input for the interviews, it still proved to be difficult to thoroughly discuss all the important aspects of the students' ten-week WPL process, because some of the information that students shared during the interviews had not been anticipated. Because the interviews were the first opportunity for the researcher to explicitly discuss the learning process with the student, new information was sometimes gathered, which could turn out to raise further questions during analysis. However, no further data collection moments were scheduled after the interviews, and therefore any further questions had to be asked by email or telephone after the formal period of study.

To be better prepared for the interviews in the Retail study, and also because there were fewer opportunities for connecting data collection to existing activities to discuss and assess learning (for example no observation of introductions because the students had already been introduced before the time of the study and no school feedback hours), it was decided to have the students fill in a brief questionnaire in advance of the interview. Although we still aimed to stick to the 'no intervention' principle of the Care case studies, we did want to gain a basic insight into the tasks the students had worked on in the period the interview related to, with whom they worked, how they felt about those tasks, and which assignments they had done, as input for the interviews. To make questionnaire completion as easy and quick a task as possible, a short online questionnaire was used and the students were sent the link by email. The questionnaire is further explained in Appendix II. We also decided to have a shorter interview three times throughout the period of study to avoid being 'surprised' by new information raised when students were invited to talk about the WPL process as in the Care cases. The initial idea was to send the students a questionnaire about a particular WPL period within the period of study in advance of each interview and have them complete it a few days before the interview took place. In practice we sent only two questionnaires instead of three, because it was found that the students did not produce much new information between the first data collection moments and the latter ones. A third interview without the input of a related questionnaire was therefore considered sufficient. In addition, we only observed the students at work for around three hours instead of a larger part of the working day, because this time span generally covers the range of tasks carried out by the students in the shops, and because the range and content of tasks was also addressed in the questionnaires.

Students from both pathways received their email with the questionnaire link at the same moment. For w-b pathway students the first questionnaire (Q1) concerned the first stage of the WPL period studied, of around two weeks. For s-b pathway students, the questions related to one full week of WPL and two subsequent WPL days. The second questionnaire (Q2) concerned the period after the period of Q1, until one month further. Students had time until a few days before the interview to complete the questionnaire, leaving several days for the researcher to study the answers as input for the interviews.

It was also decided to split up the interview with the WPL mentor into two shorter interviews. Firstly, the Care experience showed that the mentors tended to talk elaborately about their training company, which left little time to discuss the specific students' learning process unless the interview time was extended. Secondly, also because the mentors may guide more than one student at a time, it might be a heavy burden on their memory to discuss an entire WPL period of more than ten weeks after its completion. Thirdly, as in the Care students' interviews, the mentor interviews sometimes yielded new information, raising further questions. In Table 7.2 data collection contact is summarised.

The interviews for all participants were not fundamentally different from the format as explained in Chapter 3 (subsection 3.4.2). For the students, the interviews were slightly more structured, because the tasks and experiences as completed in the questionnaires served as input. This means that students could be asked to further elaborate on the social interactions and experiences regarding these tasks directly; while in the Care cases, students were first asked to explain what they had worked on during WPL. In the first interview, mentors and students were asked to answer descriptive questions about themselves and the training company, after which work activities and related learning (learning outcomes and processes) were discussed. In the final interview, the mentors and students were also asked to review the WPL process as a whole.

In a similar way to data collection in Care, practical complications prevented data collection from being entirely standardised across cases. Details are discussed in the cases. To make a curriculum description, we studied the brochure about the learning method, the assignment books and some additional documents about the curriculum. We also asked the teachers more specific questions about the curriculum.

Table 7.2: Adjusted data collection contact plan Retail

Phase	W-b pathway students	S-b pathway students
Start (end of March 2005)	Individual introduction of the study to each student Acquaintance with WPL mentor at training company (around ½ hour)	Individual introduction of the study to each student Acquaintance with WPL mentor at training company (around ½ hour)
Sent by email at the end of the first week of the study	Link to Questionnaire (Q) 1 About the first two-and-a-half weeks of WPL from the first day of the study Deadline: 5 days later	Link to Q1 <i>About the first full week of WPL, and the two WPL days in the two subsequent weeks</i> Deadline: 5 days later
From fourth week of study to fifth week of study	First interview with students (20 to 45 minutes) First interview with WPL mentor (20 to 50 minutes)	First interview with students (20 to 45 minutes) First interview with WPL mentor (20 to 50 minutes)
Sent by email six weeks after the start of the study (mid-May)	Link to Q2 About period from last questionnaire (mid-April) to third week of May Deadline: 5 days later	Link to Q2 About period from last questionnaire (mid-April) to third week of May Deadline: 5 days later
Ninth week of study (final week of May)	Second interview with students (20 to 45 minutes)	Second interview with students (20 to 45 minutes)
Final month of study (June)	Working day observations (around 3 hours) Second interview with WPL mentor (20 to 50 minutes)	Working day observations (around 3 hours) Second interview with WPL mentor (20 to 50 minutes)
From 12 <sup>th</sup> to 13 <sup>th</sup> week of study (third week of June to end of June)	Third interview with students (20 to 45 minutes)	Third interview with students (20 to 45 minutes)
Throughout study (depending on students' progress)	Observation of one examination	Observation of one examination
First week of July (end of the study)	Teacher interviews (1- 2 hours)	Teacher interview ( <i>one teacher for all s-b pathway students - 2 hours</i> )

### 7.2.3 Analysis of Retail cases

Analysis of the data from the Retail case studies was not essentially different from the approach as explained in Chapter 4. Construction of contact summary sheets (4.3.1) and check-coding (4.3.3) was not repeated because of the similarity in the nature of the data and because we basically used the same coding framework. Still, the possibility that 'other' codes might be required was kept open. All fragments could be coded with the existing coding framework, however. Only in Retail fewer 'integration measure' codes were relevant because the Retail WPL curriculum included fewer integration measures compared to Care. In any case the attainment targets and the grading procedure in Retail were different. This is explained in the curriculum description (7.3.3 and 7.3.11). For the attainment target clusters, grades are generally available; in addition, we decided to ask the students to self-rate their 'shop performance' with a grade from 1 (very poor) to 10 (outstanding) and also asked the WPL mentors to rate the students' 'shop performance'.

In the Care data it was difficult to describe the WPL process as a whole, because prior knowledge, motivation and interactions were specified to a particular learning outcome

category. There was generally a lot of information available per learning outcome category to describe the related process separately as we did for 'personal basic care' to 'knowledge of the organisation and work process'. This is different in the Retail cases. Because of the flexibility of the course, there were no attainment target clusters on which all the students were working at the same time. In practice, the students basically all worked on the same tasks, however. Examples of such tasks are helping customers, window dressing or building presentations, and putting goods or products in the appropriate place in the shop. These tasks belong to different attainment target clusters and these clusters are not all formally part of the curriculum during the period of the study. As single tasks, they are generally 'smaller' than attainment targets or attainment target clusters and it seems more appropriate therefore to take them together and describe them in a comprehensive 'shop performance' category. This learning outcome category includes 'knowledge of the organisation and work process', as separately discussed in the Care cases.

Learning to learn proved to be a problematic aspect in most Care cases. Although it is not explicitly stated as a WPL goal in Retail, we still want to describe separately how 'learning to learn' is developed in the Retail cases, because it influences the development of the other attainment targets. If students are not able to plan their learning or do not know how to complete assignments, they cannot satisfactorily complete the formal attainment targets either. In addition, if initial training is intended to provide a foundation for lifelong learning (see 1.3.1), it is important that students learn how to combine working and learning during WPL.

In Table 7.3 the data collection and analysis comparison between the Care case studies and the Retail case studies is shown.

Table 7.3: Data collection and analysis comparison between Care and Retail cases

Data collection and instrumentation	Care	Retail
Case selection	<ul style="list-style-type: none"> <li>- Three first-year w-b pathway students and three first-year s-b pathway students</li> <li>- One w-b and one s-b pathway student per nursing home</li> </ul>	<ul style="list-style-type: none"> <li>- Three second-year s-b pathway students from level 4, one w-b pathway student continuing with level 4 (started at level 2) and two second-year w-b pathway students from level 3, (same ROC as Care)</li> <li>- All students in different shops</li> </ul>
Duration of the study	10 – 13 weeks	10 – 13 weeks
Data collection contact	<ul style="list-style-type: none"> <li>- Observation of introductions, progress evaluations, school feedback hours (s-b pathway), mid-term evaluations and final evaluations (s-b pathway)</li> <li>- Observation of greater part of the working day</li> <li>- One interview with students</li> <li>- One interview with WPL mentors</li> <li>- Interview with s-b pathway WPL teachers (See Table 4.2)</li> </ul>	<ul style="list-style-type: none"> <li>- No observation of introductions, progress evaluations, school feedback hours, mid-term or final evaluations</li> <li>- Instead: observation of examination meeting, 2 questionnaires and 3 interviews (partly based on questionnaire answers) with students and two interviews with WPL mentors</li> <li>- Observation of shorter part of the working day</li> <li>- Interview with all WPL teachers involved (See Table 7.2)</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>- Coding framework as explained in 4.3.2</li> <li>- Selection of attainment targets for period studied, and 'learning to learn', and 'knowledge of the organisation and work process'</li> <li>- General framework for assessment (4.3.4)/verbal comments</li> </ul>	<ul style="list-style-type: none"> <li>- Same coding framework as in Care cases; however, fewer 'integration measure' codes</li> <li>- 'Shop performance' as learning outcome category: cluster of several 'smaller' tasks, including 'knowledge of the organisation and work process', 'learning to learn' also as learning outcome category</li> <li>- Grades available, self-rating of students and also rating of WPL mentors for 'shop performance'</li> </ul>

### 7.3 Retail curriculum and WPL

#### 7.3.1 Curriculum components

In this section we describe the Retail curriculum specified to WPL as the general context for the cases, according to the same structure as in Chapter 5 (5.2). The curriculum is built up in such a way that at the end of the first year the level of 'sales assistant' is reached. Students have the opportunity to expand this basic curriculum to a curriculum at a higher level by further following modules that may either be different or an extension of previous modules (i.e. Retail trade marketing I is taken at level 2; at level 4 Retail trade marketing II is taken in addition). Zack, Will and Thomas (s-b pathway) are aiming to finish the course at level 4: 'Management of Branch'. The w-b pathway students Rachel (sales supervisor) and Steve (senior salesperson) are aiming for level 3. The third w-b pathway student Victor however, initially started at level 2 and is aiming for level 4 at the time of the study. It emerges that he is attempting to obtain the 'Entrepreneur/Retail manager' diploma (also level 4). The length of the course depends on the level at which students started and is basically three years for regular, fulltime level 4 students. It is two

to three years for level 3 students. Differences and commonalities in the curriculum for different levels are explained in the next section.

### 7.3.2 Rationale<sup>2</sup>

#### *Management of Branch/Entrepreneur/Retail Manager*

A branch manager manages a small or medium-sized branch. He is involved in sales and presentation if necessary, but guides and coordinates the tasks related to customers, goods and finances on top of that. He is responsible for the branch's turnover, and therefore needs to make decisions for improving turnover in terms of inventory management, presentation of the shop, and the like. The branch manager also contributes ideas towards the broader policy.

The entrepreneur manages a small-sized company. He makes a business plan, formulates policy regarding marketing, sales, purchasing, personnel and finance, among other things. He analyses his branch's turnover, is responsible for accounting, stock, and personnel. He determines the layout and presentation of the shop and its products. He advises customers and deals with any complaints, and also negotiates with suppliers.

The retail manager manages a middle-sized company or a number of smaller branches. He is mainly concerned with the policy and management of his company. He formulates the business plan, for example, and is concerned with the layout of the shop and presentation of the products.

#### *Sales supervisor*

The sales supervisor guides and coordinates all the tasks regarding goods, customers and finances within a department, on top of possible sales and presentation tasks. The sales supervisor needs to make decisions about the collection, presentation and promotion of his product range, because he is responsible for the turnover regarding this range. Ordering articles that are part of this range is also one of his responsibilities and the sales supervisor should also pay attention to theft and loss. He manages employees at his department and selects new employees. He translates the policy of the shop as a whole to his department. He contributes ideas about service, staff, purchasing and sales policy and the decoration of his department.

#### *Senior salesperson*

Senior salespeople organise tasks regarding sales in terms of planning and allocating employees' tasks, and are also involved in sales themselves. They guide and monitor a group of employees in carrying out their tasks, for example in terms of having sales conversations, handling the cash register and presenting the products. They are also responsible for cash desk control, currency and stock.

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<sup>2</sup> Mainly based on (translated from Dutch): <http://www.kchandel.nl/templates/detail-kwalificatie-informatie8.htm> Retrieved August 31<sup>st</sup>, 2006.

### *Commonalities*

Both at levels 3 and 4, 'sales' (204)<sup>3</sup> is part of the tasks. The students involved have already realised this attainment target cluster, however. Presentation of products, presentation of an entire department or presentation of the shop are also part of the responsibilities (203 for the senior salesperson and 302 for the sales supervisor and the branch manager students). In addition, although 'management' (301) is one of the tasks at both levels, the senior salespeople and sales supervisors are responsible for some of the employees and part of the shop, and the branch manager for the entire shop. The entrepreneur/retail manager is responsible at an even higher level. In other words, tasks at different levels do not seem essentially different; responsibilities are, however, broader or more advanced for the branch manager and the entrepreneur/retail manager.

#### 7.3.3 Aims and objectives for WPL

The application of theory to practice and practising with skills and knowledge is a general goal of WPL. Learning outcomes are defined in the attainment targets (see also 5.2.3). The level 4 students are supposed to achieve the clusters 'managing' (301), 'presentation and promotion II' (302), 'retail trade personnel' (401), and 'retail trade marketing II' (402) in their second year. Rachel and Victor are working on the attainment target clusters 'managing' (301), 'presentation and promotion (II)' (302) and 'retail trade personnel' (401). However, Steve does not have to achieve 'retail trade personnel' or 'presentation and promotion (II)'. He has previously completed 'presentation and promotion (I)' (203), and is working on 'managing' (301) at the time of the study (and 'inventory management and cash desk control', 303). At the end of the period of the study, Victor is continuing with some theoretical attainment target clusters that differentiate the Entrepreneur/Retail manager diploma from the Branch manager diploma (in total, these clusters are 404, 405, 406, 414) In Appendix III, the WPL attainment target clusters involved are further explained.

#### 7.3.4 Content

In the first year, Retail is taught at a basic level. Students start with a ten-week basic module, including the 'working in retail' (201) attainment target cluster, in which studying (related to 'learning to learn') is also explained. WPL is explained in an information booklet, for example about the types of assignments and assessment. This booklet is studied together at school, because the teachers know that students would not readily read this on their own initiative. Students therefore receive a clear plan of approach. Languages (Dutch, and English or German) and arithmetic and ICT are also taught. S-b pathway students start their once-a-week WPL day after the basic module has finished, but w-b pathway students have already started working. At school, students work on theory structured by the modules that relate to the clusters of attainment targets once WPL has started, and are still taught, for example languages. Consequently, when the students have started with 'managing' in WPL, the related theory is handled at school.

<sup>3</sup> Numbers refer to the official, national attainment target clusters.

At school, theory is central. However, students also have the opportunity to practise particular activities, such as dealing with the cash register. An example of theory regarding ‘managing’ is that a student should know about leadership styles, while in practice he should be able to deal with a conflict between colleagues.

Students can also participate in a separate (self-regulated) course regarding the fashion branch (clothing, shoes or sports) which can be followed instead of the normally available branch differentiation course, for which they obtain a certificate.

### 7.3.5 Learning activities

Theory at school is related to clusters of attainment targets. Students elaborate the attainment targets in small groups (four to six students) and receive a booklet regarding a particular cluster. This booklet contains chapters, in turn consisting of attainment targets. The targets are divided among the members of the group. Each member answers the questions relating to their attainment targets, making use of the books in the school’s documentation centre. They can also ask questions at school. When finished, the elaboration is checked by the teacher. After any improvements, the elaborations are copied, so that all members can learn the theory for the examination. However, for example ‘retail trade marketing’ includes assignments that are so complex that the students receive lessons about it. In addition, some attainment targets cannot be examined in practice, and are therefore taught at school.

Around five to six times a year examination meetings take place. They are also intended as ‘progress evaluations’ on the part of the school. This is the basic contact between the teacher and the student. At school, there is also a weekly ‘tutorial hour’ for s-b pathway students. Students can ask questions and discuss WPL with their teacher individually or together with other students.

### 7.3.6 Teacher’s role

WPL teachers explain how students should plan and carry out their learning during WPL at school. They also discuss the selection of a training company individually with the student. The WPL teacher also fulfils the function of ‘tutor’ to the s-b pathway students. Students are expected to self-regulate learning during WPL. When students elaborate the attainment targets in their groups (four to six students) at school they can call upon the guidance of a ‘coach’. The groups of students plan their work for a certain number of attainment targets in a period of around ten weeks. One of the students acts as a chairperson and the students have to monitor progress themselves.

At the training company the WPL mentor should indicate when an assignment booklet needs to be completed. While WPL mentors are basically responsible for grading, the WPL teacher visits the training company to check whether students have indeed met the criteria for a particular cluster of attainment targets as dealt with in their assignment



booklet. This meeting also serves as a progress evaluation of the student for the school. The WPL mentor is generally present during the examination meeting.

### 7.3.7 Materials and resources

Students receive an information booklet about WPL, explaining, for example, about suitable training companies, planning, and working hours during WPL. The assignment booklets concern a selection of the attainment targets of one particular cluster at a time (see Appendix III). For example, one of the assignment booklets is called 'managing' and belongs to attainment target cluster 301. Box 7.1 gives a summarised overview of the 'managing' assignment book topics. Reports can be made at school (or at home or in the training company) using a PC. Students can use the documentation centre and computer room at school for elaboration of the attainment targets.

### 7.3.8 Grouping

At school students are grouped into classes. Students work in subgroups (four to six) to elaborate the theoretical attainment targets together. They divide the targets and each student elaborates several of them; they should report the outcomes to each other. During WPL, students are assessed based on their individual performance. They make the assignments individually and examination meetings take place individually as well.

### 7.3.9 Location

Working on theory, theory lessons and exams all take place at school. WPL takes place in real shops, such as supermarkets or sports shops. Written parts of the assignments can be completed at the training company, at school or at home. Practical assignments should be carried out in the training company. However, if required, students can also practise for example dealing with the cash register, in the model shop at school.

### 7.3.10 Time

Depending on the student's prior knowledge and the pace at which he is studying, the level 3 (senior salesperson and sales supervisor) course takes two to three years and the level 4 course (management of branch, entrepreneur/retail manager) basically takes three years.

The s-b pathway students go to school for four days a week and participate in WPL one day a week (28 hours plus 12 hours of self-study in total). A new period in the curriculum starts with one full week of WPL. This way, students can get to know the company better a little faster. The period (of around ten weeks or more) is also concluded with a full week, because some work tasks do not occur on the fixed WPL day and students may need to practise those. The w-b pathway students should have a job for at least 20 hours a week, which is complemented with one day of school per week.

A ten-week period is concluded with a theoretical exam related to the cluster of attainment targets from that period. Consequently, both the theoretical attainment target booklets and the WPL booklets are supposed to be elaborated in around ten weeks. S-b pathway students basically have one study hour per WPL day. Depending on the pace at which they are studying and any problems, it is possible that students work on different clusters of attainment targets in the same period and for example take their theoretical exam in another period.

Assignment booklet for 'managing' (301)

- Foreword: target group (students from Retail courses); the attainment targets that are examined in this booklet (10 and 11 and 'occupational attitude' - see Appendix III); short explanation assignments and assessment. 'Delegation', 'stimulation and motivation of personnel' and 'handling conflicts' are also dealt with in this booklet to support theory.
- Table of contents:
  - Introduction
    - Information assignments
  - Work schedule and allocation of work activities
  - Managing in practice
  - Assessment and discussion
  - Appendix 'work plan'
- (After introduction:) Information assignments  
Information assignments are an extra preparation for the main practical assignment. An example is: which house rules should the employees follow?
  - written
  - verbally during the job interview
  - by means of the notice board
- .....
- .....
- .....
- Plan of approach: Students should make a plan of approach for when they are going to practise the practical skills and when assessment is supposed to take place.
- Work schedule and allocation of work activities (attainment target 10 and 11).
  - Information assignments
    - Work schedule
    - Allocation of work activities
  - Main practical assignment (practising formulation of a work schedule)  
The student should formulate a work schedule regarding two working days for three employees at most. Based on this schedule, the student should formulate the allocation of a work activity. Both products should be discussed with the WPL mentor. A sample format for the work schedule is given. The assignment booklet contains further suggestions and room for preparing the tasks in writing.
- Practical examination 'work schedule and allocation of work activities'.  
The exam forms included in the booklet have the headings 'evaluation' and 'signatures'; and a form with criteria for grading.
- 'Managing in practice' for example includes an information assignment about the ways in which a good social atmosphere is realised in the training company. There is no 'main practical assignment' for this aspect. It includes a discussion with the WPL mentor, of which a report should be made.

Box 7.1: Summarised overview and explanation of the contents of the 'managing' assignment booklet

### 7.3.11 Assessment

In the assignment booklets (see Box 7.1), the practical examination including the product or report regarding this assignment is used for the WPL mentor to assess the student's

performance. When the entire booklet has been completed, the WPL teacher checks whether the criteria have been met. This teacher visits the training company and has a discussion with the student about the booklet concerned to check whether the student's knowledge and insight is indeed in line with the WPL mentor's grading, using an examination form. This form has the headings of the subjects related to the relevant cluster and presents general questions. It also contains examples of specific questions, although teachers may make up the specific questions themselves. In addition, it includes a scoring format. The examination meeting also serves as a 'progress evaluation'. Students are only allowed to take their theoretical exam at school when the assignment booklet has been completed and handed in to the WPL teacher. Students are graded from 1 (very poor) to 10 (outstanding) for their assignment booklets and related WPL examinations. They achieve a pass when they have been rated an average of '5.5' for the cluster as a whole; their WPL grade alone should also at least be '5.5'.

#### **7.4 Retail case descriptions**

The Retail case descriptions are structured basically in the same way as the Care case descriptions (see section 5.3). This means that Figure 5.2 regarding the description structure basically also applies to the Retail cases. For the Retail cases we have described the general WPL curriculum regarding Retail in section 7.3. We describe the learning processes related to the learning outcomes (Figure 5.2 - E) 'shop performance' and 'learning to learn' in the Retail cases. In this chapter only the summaries and conclusions of the cases are given. The extensive descriptions are presented on the CD-ROM.

#### **7.5 Will's case**

##### **7.5.1 Summary of Will's case**

In Table 7.4, Will's case background is summarised. Tables 7.5 and 7.6 show the summaries of the learning process descriptions for 'shop performance' and 'learning to learn'.

Table 7.4: *Will's background display*

<b>Will (s-b pathway)</b>	<p>Male aged 19, who finished an Accounting course before starting with the Retail course at level 4. Is repeating class so he started one year before the other s-b pathway students who are in his class. Has WPL experience from a toy store and a supermarket, and started in shop U in 2003.</p> <p>Friendly, however, not very communicative. Likes the work yet takes a calculated approach to studying. His teacher needs to keep him on his toes. Will had expected this course to be more difficult. Thinks staying at school will improve his chances on the labour market.</p>
<p>Learning environment</p> <p>- Training company</p>	<p>Shop U is part of a DIY<sup>4</sup> chain that aims to offer customers the solution to their DIY problems and provide inspiration regarding maintenance, home decorating and gardening. A 'passive' sales strategy is in operation, although the chain wants its employees to become more proactive in sales in the near future. There are about twenty colleagues in total; five to eight are at work at the same time. The atmosphere is pleasant and Will feels like a regular employee rather than a student.</p> <p>Shop U opens at 9 a.m. Will usually works on Fridays from 9 a.m. to 6 p.m. He is typically occupied with tasks such as mixing paint, changing price tags, visual merchandising and cleaning up. On the observation day, he is mainly working on counting particular products for preparing the accounts. In the meantime, customers ask questions. Breaks are taken together depending on staffing and the lunch break (around 1 p.m.) takes around half an hour. The physical workload is only high sometimes when heavy objects need to be moved. The work is not mentally hard either. It can be more difficult when he has to carry out different tasks at the same time and also has to help customers. During the observation day the shop does not seem to be busy.</p> <p>Will does not participate in formal work meetings at shop U. Work discussions usually take place during work on the work floor. The department head is responsible for the division of work (after the district manager and main office). Important activities are also reported on the notice board. Will's WPL mentor feels that the chain's main office does not really have an insight into the shop. Between the chain's shops, however, contact is good and they for example help each other out when employees are sick.</p>
<p>- WPL curriculum and integration measures</p>	<p>Guidance: Vincent as WPL teacher (and tutor) and Craig (one of the department heads) as WPL mentor. Although Craig is present on Will's working days, Will usually receives orders from another senior employee. Students typically start with putting goods in the appropriate place in the shop to get to know the shop and only later become responsible for more difficult tasks. They start on helping customers right away; however, they should refer to colleagues if the customers' questions are too difficult.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- Full week of WPL, ten weeks with one WPL day a week, full week of WPL.</li> <li>- One study hour per WPL day, also meant for discussion with the WPL mentor.</li> <li>- One week of holiday in between.</li> <li>- One examination meeting (about '401') one month after the study started.</li> </ul>

<sup>4</sup> In Dutch: 'doe-het-zelf' zaak.

Table 7.5: Summary of Will's Shop performance process

*Prior knowledge, motivation, emotion and personality*

Will has **sufficient prior knowledge** of the tasks he generally carries out within the period of study, because he **already has work experience** (although in other sub-branches) from his previous WPL periods and is **repeating this school year**. He passed the 'managing' and 'presentation and promotion' attainment target clusters for WPL before the period of the study.

Will **likes working at shop U**, especially advising people for the paint mixing task, and he likes it when new goods are delivered, which he has to put in the appropriate place. Will rates most of the work tasks he has performed during the time of the study as 'neutral' rather than 'fun', except indeed mixing paint and he rates receiving and putting goods in the appropriate place as 'interesting'. He does not think any of the tasks are physically hard. He especially likes the staff planning assignment from the 'retail trade personnel' (401) cluster because he could learn a lot from making a schedule and seeing whether the right people and the right working hours were scheduled. This indicates that **Will would like the 'managing' aspects** of the job. Vincent has the idea that **Will shows more motivation while working than for learning**. Will **likes his colleagues** at shop U and he appears to work together with his colleagues pleasantly.

*Social interaction and learning environment*

Will works on packing goods and putting them in the right place, mixing paint, changing price tags, visual merchandising, dismantling display models and cleaning up in the period of the study. To learn more about ordering, Will **first accompanies an experienced colleague** and **later has the opportunity to practise** with a 'trial order' which is then checked by Craig or other senior employees. Helping clients is a continuous activity. At first Will would be somewhat embarrassed when customers asked him a question. Will **has learnt how to help customers better by being told** by a senior employee and the department head **how to help people, observing** these experienced colleagues, **imitating** them and **receiving feedback**. In all, the tasks that have been involved in Will's WPL process regarding performance in the shop are: being instructed, observing, asking questions, being shown, imitating, receiving feedback, working under supervision and working together with a fellow student. The **full range of social interaction processes** has thus been involved.

Although there are **no work meetings** at shop U, colleagues do **talk about work during breaks**. Will asks fellow students and colleagues questions. However, they do not always know the answer either. This results in odd situations where sometimes more than two students go to ask a senior colleague the customer's question. During the observation day, Craig does not stop by to check up on Will. Although Craig claims that students at shop U have **the opportunity to take the initiative and do some planning**, this **seems very limited**. During the observation day, Will still receives 'orders' from senior employees or the department head, which he carries out alone or with another student. There is only some responsibility for planning his activities because he sometimes receives a few tasks at the same time and also needs to help customers in the meantime. In addition, **Will has never done any managing tasks or even accompanied the manager**. From what Will observes of the manager's job, he feels that it appears much easier than what he learnt about it at school. Will thinks that the manager is busy with improving shop U's performance from his office. However, he is not involved with the manager's activities at all. Craig also reports that Will is involved in "*everything, except managing*". During the observation day (Wednesday), the **pace of work does not seem very high**.

*Internal acquisition and outcome level*

Will has become able to put goods in the appropriate place and mix paint independently at shop U. He feels he has **progressed especially in interaction with customers**. Will is able to explain some tasks, such as counting products for preparing the accounts, more extensively. He does not really explain about the relations with other work processes, however. He is not able to report shop U's mission and does not really know what the manager's responsibilities are. Will **reports that he does not really know about managing** at all **yet**, even though he completed the related booklet already before the period of the study. He **does not seem to have developed much work process knowledge**, therefore. Craig thinks Will **has become more self-confident regarding helping customers**. During the observation day, however, he is not able to answer any of the customers' questions on his own. He cannot be trusted with ordering yet either. **Craig thinks Will's product knowledge is around 20 to 30 percent** of what should be known in shop U, **and would rate Will '7' for 'shop performance'**. Will would **rate himself with a grade between '7' and '7.5' for performance in the shop**.

Will appears to have gradually learnt a little more about helping customers and other work tasks in shop U. The findings point to **assimilation** as the internal acquisition process.

Table 7.6: Summary of Will's Learning to learn process

*Prior knowledge, motivation, emotion, and personality*

Will has finished the 'managing' and the 'presentation and promotion' cluster of attainment targets with an average of '6', meaning he has only just passed them, before the start of the study. He has just started with 'retail trade personnel' (401). Will is repeating the current school year, because he did not learn enough for the theoretical tests. His WPL went well, however, and in total, he missed being able to move up to the next year by a mere three-tenths of a point. Will feels that the assignments are a lot less difficult than he had expected in advance of the course. However, according to Vincent, Will likes working rather than making assignments and at school, he does not work very hard. He is careless in meeting the deadlines for handing in the assignment books and making appointments for discussing them. He does not review the assignment booklet for the examination meetings. Will thinks the assignments are useful, on the other hand, because they help teaching him how the work should be done and serve as preparation for the theoretical tests. Will is looking forward to learning how things work in different branches. Currently, Will feels that theory is too general and that WPL is the most important component compared to school and theory. Will feels like a regular employee and not an apprentice at shop U.

*Social interaction and learning environment*

Will works on his assignment books in his study hours. He does not make use of the planning format included in the books. Will usually asks Craig in advance whether he has time to help him. If Will has questions, he can ask them. They do not have formal meetings or progress evaluations about the assignments or about learning in general. However, there seems to be enough time on Will's WPL day to spend on learning. Will has worked on the assignment book of 'retail trade personnel' during the period of the study. Although Will asks his WPL mentor or other colleagues questions about the assignments, he only has the assignments checked just before he needs to hand them in to the teacher. Craig thinks he spends around half an hour per WPL day on Will's learning.

Vincent visits shop U at the end of the first month in the period of the study for the examination meeting about 'retail trade personnel' (401). Craig is present, although hardly involved. It also turns out that another department head has graded Will's assignment book (with '6.8'), because Craig was not present when Will wanted the book to be graded. As a reaction to Vincent's remarks that Will has not completed the assignment book satisfactorily, Craig promises that he will discuss this with Will at short notice. Will promises to have it finished after the upcoming short holiday. Vincent indicates that if particular assignments are not directly applicable in shop U, Will could report on how similar work activities are carried out at shop U. Vincent also points out that there are a few hours at school in which Will could work on the assignment book. Will's assignment completion (or lack thereof) seems to be a surprise to Craig. The day after the 'retail trade personnel' examination meeting, Will has indeed continued finishing the assignment book and Craig has checked it. Will then hands in the book again to Vincent a week later. Vincent reports that he has to keep Will on his toes regarding the assignments. Will does not take his learning process very seriously. In the end, however, he does complete everything, albeit rather poorly. Will has had contact with his WPL teacher by calling, sending him a text message, stopping by at school and during the tutorial hours. Vincent thinks guidance at shop U is good because the students have to work hard there. Transmission especially and activity have been involved as social interaction processes.

*Internal acquisition and outcome level*

Will's examination meeting about 'retail trade personnel' shows that he initially has not completed all the assignments well enough. In addition, he does not appear very convincing with his verbal responses during the examination. Although Vincent initially does not agree with the way in which Will has completed, or failed to complete the booklet, Will later explains again that some elements of the book could not be completed. Some other parts he completes later. His WPL grade becomes '6.8'. During the examination meeting, Vincent also indicates that Will is behind regarding 'retail trade marketing II' (402). Almost two months later, Will claims to have that nearly finished.

Craig is content with Will, and Will is also content with his WPL. Vincent, on the other hand, thinks that Will has hardly applied theory to practice. He thinks, however, that Will is able to apply what he has learnt in other contexts. Will will probably finish his course in the following year, Vincent thinks.

Will does not show much motivation for learning, despite his general motivation and goals indicated for example by his ambition to continue in Higher Professional Education. He is repeating this school year because of a lax learning attitude, and still avoids investing 'too much' energy in his assignment books and in studying. His frequent re-examinations show how much he underestimates learning. Will does not think assignments are difficult, he just seems to be someone who does not want to invest much time and energy in completing them and planning learning. Although he does work on his assignments and other learning activities he does not improve his learning skills. This process meets the criteria of 'resistance' most.

### 7.5.2 How can we describe Will's WPL learning processes and related learning outcomes?

We present the learning process elements in a format comparable to the research model (5.1<sup>5</sup>), showing which specific influences play what role (positive or negative), to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is. This is shown in Table 7.7, 1-2.

Table 7.7, 1-2: *Will's learning processes, influencing factors and related learning outcomes*

#### 1. Shop performance

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social atmosphere + workload: little time pressure	- social: lack of more formal work discussions (Will does not know shop U's mission and most students have little product knowledge), although sometimes they talk about work during breaks  - division of work  - work content: no managing tasks or view on managing aspects for Will	Full range of social interaction processes from perception to participation	Between 7 (Craig) and 7.5 (self-rated); does not really know about managing yet, even though he completed the related assignment booklet. Has mostly improved regarding helping customers. Has not developed much work process knowledge.
<b>Integration measures</b>	+ WPL curriculum at shop U: step-by-step approach to learning work tasks			
<b>Learner</b>	+ prior knowledge; previous work experience + motivation		Assimilation	

<sup>5</sup> In the Retail cases, there are fewer integration measures and different learning outcome categories from Care: see Table 7.3.

## 2. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ low work pressure; enough time to spend on learning		Especially transmission and activity	Finishes everything only just in time and rather poorly. Craig is content with Will as an employee. However, Vincent thinks Will has hardly applied theory to practice. Will does not improve regarding learning to learn.
<b>Integration measures</b>	+ study hours + guidance: Craig available for questions + guidance WPL teacher: Vincent keeps Will on his toes	- guidance: no close monitoring by Craig regarding learning progress		
<b>Learner</b>	+ general motivation and goals	- motivation: takes a calculated approach to studying and careless regarding deadlines  - prior knowledge: usually passes only after several attempts and/or with low grade	Resistance	

Shop U offers a beneficial learning environment in terms of the social atmosphere and the workload, because Will likes working there, he can always ask questions and has enough time to learn about the work and spend time on his assignments. Will does not have the opportunity to develop much insight into managing, however, because he is not involved in managing at shop U. There are no formal work meetings either and the division of work is rather strict. This appears to negatively influence Will's development of knowledge about shop U and its products. On the other hand, work task instruction is taken seriously and Will has the opportunity to learn those tasks step-by-step. He has developed some knowledge about his work tasks and has become more self-confident regarding helping customers by among other things observing colleagues and imitating them, asking questions and receiving feedback, and working together, by assimilation.

Although Craig is available for questions on the WPL day, he does not seem to have monitored Will's learning progress closely enough. Firstly, he has not checked Will's 'retail trade personnel' assignment book himself. Secondly, the fact that Will has not completed it satisfactorily is a surprise to him implying that he did not ask the employee who graded it how Will had completed the book. While he comments that he spends around half an hour per WPL day on Will's questions, he could have checked Will's assignment completion a little longer before Will had to hand in the book. Will does make use of the study hours, and Vincent keeps him on his toes regarding the assignments. Probably influenced by his general motivation to complete the course and by Vincent's guidance, Will does eventually finish everything by the end of the school year, albeit poorly. His calculated approach to learning has not improved within the period of the study: Will rather seems resistant in terms of 'learning to learn'.



As an employee, Will is rated 'more than satisfactory' by Craig, while on the other hand there is much left to be desired regarding Will's knowledge of shop U. In addition, Will probably needs to improve his learning attitude if he really wants to continue in Higher Professional Education. He is thinking about starting his own business in the future [si], although he does not have a specific idea about it yet. On the other hand, Will also reports that the course is less difficult than he had expected. It might be possible that the course is not quite challenging enough for him. Although Vincent thinks Will's learning attitude could improve, he seems to agree with Craig that Will can be rated as 'more than satisfactory' as an employee, and thinks that Will is going to 'make it' next school year.

## 7.6 Zack's case

### 7.6.1 Summary of Zack's case

In Table 7.8, Zack's case background is summarised. Tables 7.9 and 7.10 show the summaries of the learning process descriptions for 'shop performance' and 'learning to learn'.

Table 7.8: Zack's background display

<b>Zack (s-b pathway)</b>	<p>Male aged 18, who finished junior general secondary education before he started with Retail as the result of a career test. Had no idea what direction he wanted to follow before the career test. A friend introduced Zack to shop T and Zack is especially interested in working in a sports shop. He also has prior WPL experience in a sports shop. Zack claims to like working there because he likes transmitting his knowledge about the products to clients. He decides, however, that he wants to leave Retail halfway the data collection period, because he wants to get into the army. He is not accepted, however, and continues with the Management of Branch course.</p> <p>Friendly, spontaneous person, who is motivated at work and assertive. Likes keeping busy in the shop. Is bored with 'having not much to do at school', is more easy-going at school and can be lax in appointments. His WPL teacher needs to keep him on his toes. Zack does claim to feel responsible for WPL himself, and Vincent does assess Zack as a 'level 4' student. He thinks that Zack "<i>picks things up</i>" quickly at work.</p>
Learning environment - Training company	<p>Shop T is part of a chain that aims to sell reasonably good products for a reasonably low price and focuses on young people as a target group. A pro-active sales strategy is in operation. Employees need to be well-groomed. Zack thinks the social atmosphere among colleagues is really good.</p> <p>Shop T opens at 9.30 a.m. and closes at 6 p.m. (except on late openings); however, employees need to be there before 9.15 a.m. and start with a brief work discussion together. They work until around 6.15 p.m. or 6.30 p.m. Typical work tasks for Zack are sales and keeping the shop tidy. He also works on window-dressing and putting goods in the appropriate place. On the observation day, Zack is also responsible for taking a new employee round the shop (related to his current cluster of attainment targets 401). The half-hour lunch break (around 12 a.m.) is taken individually or in pairs. In the afternoon of the observation day Zack is allowed to 'do some managing'. At first the work can be physically hard when people are not used to being on their feet all day. The workload is not generally high.</p> <p>Discussion about work or work progress often takes place during the work. There are no formal work meetings at shop T. The branch manager is responsible for the division of work in shop T. The chain of shops together forms 'one big company' and employees are for example interchanged if required.</p>

Table 7.8: Zack's background display (Continued)

- WPL curriculum and integration measures	<p>Guidance: Leo (the branch manager) as WPL mentor and Vincent as WPL teacher (and tutor). Zack receives orders from Leo and from the assistant manager.</p> <p>Basically, Zack can start independently with the work or the assignments and ask for help if he has difficulties. There are, however, also work activities that are explained to him first. Zack is involved in helping customers from the beginning of his WPL. He is not allowed to do cash desk control, because management rather handle this themselves.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- Full week of WPL, ten weeks with one WPL day a week, full week of WPL.</li> <li>- One study hour per WPL day in principle; depends on whether Zack "feels like it" and on whether the shop is busy.</li> <li>- One week of holiday in between. No examination meetings within the period of the study.</li> </ul>
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Table 7.9: Summary of Zack's Shop performance process

<p><i>Prior knowledge, motivation, emotion and personality</i></p> <p>Zack has nearly finished the 'managing' assignment booklet and has finished 'presentation and promotion' before the period of the study. He feels he has <b>sufficient prior knowledge</b> of most of the tasks at shop T because he was guided to learn the "<i>tricks of the trade</i>" well in his previous WPL. He <b>also learnt much from the lesson</b> about the sports shop branch and was told about having to look well-groomed and being customer-friendly <b>at school</b>. Zack did not know about window dressing yet, however, because in his former shop he did not have to carry out this task. Vincent thinks school has prepared Zack well for WPL. Zack <b>would like most to work in a shoe department</b> of a sports shop; <b>however, he likes sales at shop T</b> too, and he likes <b>the other tasks</b> as well. He does not feel that any of the tasks are hard. He is <b>not entirely comfortable with</b> shop T's <b>pro-active sales strategy</b>; however, he just "<i>switches</i>" to 'customer friendly mode', to be friendly to customers no matter what. Although Zack feels theory should come first as a basis, "<i>you learn best in practice</i>". Vincent thinks <b>Zack is more active at work than at school</b> and that his occupational attitude is good. Leo thinks Zack has an active attitude and is flexible.</p> <p><i>Social interaction and learning environment</i></p> <p>Zack typically works on sales, keeping the shop tidy, and putting received goods in the appropriate place. He also carries out window-dressing sometimes. He is also allowed to do some managing a few times. Zack is left to work independently and "<i>explore</i>" the shop under supervision after he has been explained about and shown the work. What Zack does not know yet <b>he learns by observing, trying out, asking questions and receiving feedback</b>. Regarding window-dressing, Zack was instructed step-by-step his first WPL day how to do this by his then WPL mentor. By now Zack carries this out independently with a colleague or fellow student. Regarding managing, for example, Zack is asked by the assistant manager to show round a new employee during the observation day (which is actually related to 'retail trade personnel'). If Zack needs to deal with complaining customers, he asks the manager for help if he is not able to solve the problem himself.</p> <p>Usually the <b>manager briefly indicates what work tasks need to be carried out</b>. During the observation day, however, Leo is replaced by the assistant manager. <b>Zack is observed to also take the initiative</b> for work progress discussion at this day. Regarding <b>work content</b>, Zack's favourite activity of <b>selling sports shoes takes up the larger proportion</b> of the work. Vincent thinks that Zack <b>also has the opportunity to experience</b> what it means to <b>plan and manage</b> in a shop by observing this, which he has noticed by reading Zack's assignment completion. Zack did not complete the assignments excellently; however, he has worked on these topics. The involved <b>social interaction processes are the range from perception to participation</b>; <b>however imitation was not explicitly mentioned or observed</b>.</p> <p><i>Internal acquisition and outcome level</i></p> <p>Zack feels he has become <b>more self-confident and that he is growing</b> bit by bit. Leo thinks the most important thing Zack has learnt is helping customers and discussing work with the assistant manager or the manager. Zack has also observed management dealing with customer complaints. Vincent indeed thinks Zack has had the opportunity to experience or observe what it means to be a branch manager.</p> <p>Zack knows what kind of shop shop T is. He is able to explain how he approaches helping customers. In addition, he is able to explain receiving goods and putting them in the appropriate place and window-dressing well. Although he has never scanned in delivered goods or done cash desk control, he is also able to explain the relation between putting new products in the warehouse, organisation of the warehouse, and product orders by the main office. Zack is also able to comment on the difference between theory and practice. He therefore appears to have developed a <b>reasonable to high amount of work process knowledge</b>.</p> <p><b>Zack rates his 'shop performance' as '7'</b>. According to Leo "<i>at work he always does really well</i>". He also thinks that Zack thinks along well: that <b>he has the level of an assistant manager</b>. Leo thinks Zack has acquired 90% of the knowledge he needs to perform the job of Branch manager well. <b>Leo would rate Zack as '7.7'</b> for 'shop performance', with the comment that he never provides high grades. Zack has mainly learnt gradually to become better in 'shop performance' during the period of the study. He views being a branch manager as difficult, for example because of having to deal with difficult customer complaints. His thoughts show that he has <b>reflected a little</b>, in addition to <b>assimilation</b> as the main internal acquisition process.</p>
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Table 7.10: Summary of Zack's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Zack has finished 'presentation and promotion' (302) and has almost finished the 'managing' assignment booklet before the period of the study. His average grade for 302 was '5.6', meaning he only just passed it. He reports that he will soon start working on 'retail trade personnel' and has not started with 'retail trade marketing' yet. He does not know much about work meetings and discussions (related to 'retail trade personnel') and thinks this is difficult. On the other hand, he did learn about formal work meetings during the lessons 'Dutch' at school.

Zack thinks some assignment booklet questions are rather irrelevant, because the booklets are made for Retail in general and not specified to particular branches. He does not complete such questions. He reports that he usually prepares himself for the examinations at school; however, not for the WPL examination meetings. Zack views theory as a basis and recognises it in practice. However, he thinks you learn best in practice. Vincent thinks school and the assignments mainly add "discipline" to Zack's WPL, because Zack does not like making reports and completing the assignments (and the reporting and accounting aspects of the course and the job). At school he is more easy-going than at work. He takes a calculated approach to studying and has re-examinations very often. Then he still usually only just passes. Vincent thinks that is the reason Zack wants to switch to the w-b pathway at the end of the period of study. Zack does feel responsible for WPL himself, he claims.

*Social interaction and learning environment*

Zack hardly ever makes use of the assignment booklets' plan of approach, only when it is a thick booklet. He usually has the opportunity to take his study hour at the end of the WPL day. He takes initiative to start with the assignment booklets himself, although he waits until the shop is ready for the next day. If he does not know the answer to the booklets' questions, he asks his WPL mentor for help. This is not planned in advance: Zack asks his questions in between. They have assignment booklet discussions two or three times in the period of the study. Zack mostly works independently, however.

During the period of the study, Zack is working on the assignment booklet 'retail trade personnel' (401). He for example tries to gather information about formal work meetings by asking his manager and assistant manager and is also supposed to stage a job interview which should be assessed by the WPL mentor. Zack has not done this so far, however. He has only asked Leo what it actually means to have a formal meeting. Leo has explained that for a meeting, an agenda is (generally) used. However, formal work meetings do not really take place at shop T. Zack has not participated in any actual work meetings, therefore. The assistant manager also knows how meetings work because he also has a part-time job in another shop, where meetings are held. He has therefore also explained something about meetings to Zack.

Leo comments that by now, he knows what the students need to do for their assignments, and so he takes into account that they need to carry out particular work tasks within the WPL period. Consequently, there are examples where Zack has the opportunity to carry out assignment-related tasks. Introducing new employees, for example, is an element in the 'retail trade personnel' assignment booklet. Zack therefore has the opportunity to introduce a new employee during the observation day. Zack reports that before, he has practiced 'introducing new employees' with a fellow student. The booklet concerns formulation of an introductory program and making checklists for introduction and showing the ropes, however, which is not referred to or applied before Zack introduces the new employee.

During the examination meetings, Vincent asks the questions and Leo has to check the answers with the shop's reality and is asked by Vincent how he would rate Zack. Zack's grade is an average between Leo's grade and the rating of Zack's answers in the examination meeting by Vincent. Vincent provides hints when Zack has difficulties with the questions. Although Vincent feels that Zack's answers are rather superficial, Zack is graded '7.5' for '401'. Vincent needs to keep Zack on his toes regarding learning. Zack has contact with Vincent during the tutorial hours, by phoning and by stopping by at Vincent's office outside the tutorial hours. The involved social interaction processes mainly are transmission and activity.

*Internal acquisition and outcome level*

Zack thinks "everything is still exactly the same as in the beginning of the year", at the end of the period of the study. He has completed the 'retail trade personnel' booklet some weeks later than the period of study, which is still before the formal end of the school year. He has failed to complete 'retail trade marketing' (402), however. This means he will probably have to finish this at the end of his course in additional time. Although Zack has ultimately received the grade '7.5' for '401' and Leo would even rate him with an '8' if it were only up to him, Vincent thinks the assignment booklet answers and the examination meeting answers are rather superficial. Vincent also really needs to keep Zack on his toes. Zack's learning behaviour has become poorer in the period of the study, probably because Zack is now hesitating about his career choice. Vincent thinks Zack does have learnt that he is subject to expectations: regarding reporting towards school but also at work. Zack is also able to explain the role of theory in his course.

Zack has not improved his learning skills, however. He appears to be 'in conflict with the situation' (Table 2.2) because he is hesitating about his career choice, or at least wants to switch to the w-b pathway. While Zack claims to like working at shop T, he keeps taking a calculating approach towards studying, and is even simply negligent regarding his assignments and planning learning, also resulting in lack of time to complete '402' before the end of the school year. These findings point to 'resistance' as the internal acquisition process.

### 7.6.2 How can we describe Zack's WPL learning processes and related learning outcomes?

We present the learning process elements in a format comparable to the research model, showing which specific influences play what role (positive or negative); to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is. This is shown in Table 7.11, 1-2.

Table 7.11, 1-2: *Zack's learning processes, influencing factors and related learning outcomes*

#### 1. Shop performance

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content: also some managing		Range from perception to participation; no imitation	Has become more self-confident and customer-friendly; has become able to discuss work progress with (assistant) manager and has developed reasonable to high amount of work process knowledge. Between 7 (self-rated) and 7.7 (Leo). Leo thinks Zack already has the level of assistant manager.
<b>Integration measures</b>	+ guidance at shop T: showing and explaining the work and available for questions			
<b>Learner</b>	+ prior knowledge + motivation	- motivation: formal work meetings and discussions perceived as difficult subject, Zack does not like reporting and accounting aspects of job	Assimilation and some reflection	

#### 2. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content: some taking into account of tasks related to assignment booklet	- work content: no work meetings (related to current assignment)	Mainly transmission and activity	Has not completed everything in time or has completed it rather minimally. While Leo is very content with Zack as an employee, Zack is even poorer regarding learning than before.
<b>Integration measures</b>	+ guidance WPL teacher: Vincent keeps Zack on his toes	- Leo's guidance: ad hoc approach to learning		
<b>Learner</b>	+ general motivation and goals: recognises role of theory and sees it as a basis	- motivation: takes a calculated approach to studying - prior knowledge: usually passes only after several tries and/or with low grade	Resistance	

Shop T offers some opportunity to practise assignment-related tasks; however not all of them. Zack has the opportunity to practise a little with managing there. There are no formal work meetings or discussions, however, while this is exactly the subject Zack perceives as difficult in the theory and is part of his current WPL booklet. To learn about the work, Zack is shown the work, sometimes step-by-step, has the opportunity to explore and ask questions and work independently, and develops by assimilation and some reflection regarding 'shop performance'. He likes all work tasks although he prefers selling shoes, and has developed a reasonable to high amount of work process knowledge, as confirmed by his mentor's ratings. On the one hand, Leo thinks Zack has 90% of the required knowledge and functions as an assistant manager, on the other hand, he rates Zack's 'shop performance' as '7.7', commenting that he never provides high grades.

Zack does not seem to be monitored closely regarding learning, and takes study hours only when the shop is ready for the next day and when he "*feels like it*". Because Zack, in addition, does not have an active attitude towards learning, Vincent needs to keep him on his toes. Zack does acknowledge the role of theory, and does seem to reflect a little on the more difficult aspects of the work. Still he completes his assignments rather minimally or not in time, and his performance regarding learning seems to even have deteriorated. This process is therefore characterised as resistance.

Zack does not feel he has really learnt a lot in addition to his previous experience during the period of the study. He was only allowed to accompany the manager and assistant manager in doing cash desk control instead of doing it himself, for example [si; mi]. Zack thinks the most important thing he should learn (by now), is managing. He thinks, however, that this will be dealt with next school year [si]. Although Zack tries to get into the army a few weeks after the start of the study, he is not accepted and he continues with Retail again. Nevertheless, he does like working at shop T much. He would, however, rather like to continue with the w-b pathway [si; mi]. The question is, however, whether there is a job opening in the region. Leo has recommended Zack for a w-b pathway position to the district manager. Before Zack took the career test that showed him Retail might be an option, Zack had no idea what to do. Now, Zack is still hesitating about his future at the end of the study.

## 7.7 Thomas's case

### 7.7.1 Summary of Thomas's case

Thomas's case background is summarised in Table 7.12. Tables 7.13 and 7.14 show the summaries of the learning process descriptions for 'shop performance' and 'learning to learn'.

Table 7.12: Thomas's background display

<b>Thomas (s-b pathway)</b>	<p>Male aged 19, who finished pre-vocational secondary education (with a preparation for Retail/Accounting) before he started with Retail. Selected shop V because he aspires a job in this branch (white goods and brown goods). He also has a job on the side in a supermarket. Has previous WPL experience in a fashion shop. Likes working in a shop and being into customer relations.</p> <p>Friendly, serious person who works systematically and has a sense of responsibility both at school and at work. Wants to obtain better grades than just a 'pass': is really motivated. Basically likes school, because things are usually explained sufficiently and you learn from it. Thinks you learn more in practice, however. Had not expected the course would be so enjoyable.</p>
Learning environment - Training company	<p>Shop V is a white goods and brown goods store part of a chain that aims to distinguish itself by being into customer relations and providing more service than others. They for example deliver and connect the products at the customers' homes. Employees need to be immaculately dressed and behave politely to customers. Thomas has around eight colleagues at shop V. Although shop V has just had to let some employees go, the social atmosphere is good. The contact between the branches of the chain is also good. Thomas feels he is viewed as a real employee at shop V.</p> <p>Shop V opens at 9.15 a.m. (and closes at 6 p.m. except late openings) and employees need to be there at 9 a.m. They drink coffee together and discuss the work. Typical work tasks for Thomas are dealing with the goods and assisting in sales. He is also occasionally allowed to perform some other tasks, such as making a particular coffee machines display. On the observation day, Thomas is also responsible for assembling a piece of furniture (for a T.V.) at a customer's home and connecting a video recorder and a DVD-player. There are no regular break times. Lunch break is half an hour and is sometimes taken in pairs and sometimes individually. Employees are also allowed to drink coffee once or twice a day; however, not in front of the customers.</p> <p>Thomas does not think the work is hard generally, except when lifting larger devices. He does not think it is difficult either; although you do need to learn to work with the goods system. What is difficult about sales is that the employees need to have much product knowledge and these days, clients also find out what they want in advance much better. In addition, shop V's employees also need to be able to deal with customers' complaints. During the observation day morning the shop was busy; however, Thomas had to take care of the goods then so he could not assist in sales. In the afternoon, it is rather quiet. Because of 'hard times' (disadvantageous economic situation), shop V is not doing so well. It was therefore actually not planning on taking students because it would take too much time; however George did not want to reject Thomas because he really likes him.</p> <p>The branch manager is mainly responsible for the division of work. The white goods, brown goods and media department have a specialised employee and the other employees are all-round.</p>
- WPL curriculum and integration measures	<p>Guidance: George (branch manager) as WPL mentor and Vincent as WPL teacher (and tutor). Thomas usually knows what to do or is told by George. George first has new students get used and explore the shop. When they are able to work on the goods independently, they can start with accompanying others in sales and gradually start with sales themselves. Thomas is informed about product knowledge by the manager or others who have also followed related training. Thomas is not allowed to do managing or accounting at shop V.</p> <p>Thomas has the opportunity to work on his assignments on the WPL days and has the opportunity to ask questions. Thomas can use a PC at work for his assignments.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- Full week of WPL, ten weeks with one WPL day a week, full week of WPL.</li> <li>- One study hour per WPL day, on quiet moment in the shop.</li> <li>- One week of holiday in between.</li> <li>- One examination meeting (about '402') at the end of the period of the study.</li> </ul>

Table 7.13: Summary of Thomas's Shop performance process

*Prior knowledge, motivation, emotion and personality*

Thomas has **prior work experience** in a fashion shop and has finished the attainment target clusters preceding the period of the study with a more than satisfactory grade. Thomas feels he **knows enough in advance** of the tasks he is working on during the period of the study.

Thomas **especially likes the white goods and brown goods branch**. He likes sales because of the interaction with customers and likes delivering products to the customer, because it is about more intensively working with a product, which, in turn, can be used for future sales. His main work task is dealing with the goods, however, which he does not find very exciting. Thomas works systematically, has a sense of responsibility and follows up the manager's instructions well. Although George thinks sales can be difficult for example because you need to have a lot of product information, Thomas does not indicate sales as difficult.

*Social interaction and learning environment*

Thomas is not allowed to do sales at first; however, after some months he helps a customer who approaches him, and this goes well. Thomas typically works on dealing with the goods and sales by now. He also participates in deliveries, done in pairs. He tries to help as much as possible, and observes the colleague to learn about it for the next time. In the beginning of their WPL at shop V, George has students explore the shop and find out how particular devices work, starting with dealing with the goods. They gradually become more involved in the shop and can start with sales. **George thinks showing-imitation-experience is required** for the students to develop. Regarding sales, students should first accompany other salesmen. Thomas also asks colleagues about products and they inform him about for example the organisation and future changes. Thomas thinks 'sales' cannot really be learnt from the books: *"a customer is not just a standard thing. He is unique and you have to react to that. And not for every customer response there is a (guideline for a) reaction that you can give"*.

On the observation day, Thomas also assembles a piece of furniture (for a T.V.) and connects a video recorder and a DVD-player at a customer's home for the first time. He has learnt about this by observing colleagues in the shop connecting devices, and asking questions about it. Thomas is mainly working with the goods in the shop at this day, however. During his WPL period, Thomas is also asked to work on Sunday opening hours once. It is a special promotion day during which he helps promote a particular device, which he finds enjoyable. The involved **social interaction processes are perception, transmission, experience, imitation, and activity**.

The **branch manager (George) usually tells Thomas what work he should do**, and he takes initiative himself as well. This does not mean, however, that he has much scope to plan or evaluate the work himself, because **the type of work tasks is rather predetermined**. During WPL Thomas **does not have the opportunity to do any managing. Retail trade marketing ('402') theory is useful**, because marketing rules and policy are not directly evident from practice. In practice, the people responsible for marketing from the chain for example visit shop V to adjust routing, which Thomas has observed. The fact that **shop V is not doing so well might influence Thomas's opportunities for doing sales**. When the shop is quiet, you rather want your best salesman to help any customers.

*Internal acquisition and outcome level*

Thomas is able to explain about shop V being into customer relations and how this differs from other shops. He has ideas about routing improvement, which he has also processed in the related assignment booklet ('402'). He feels his typical work tasks were already going well before the start of the study. George comments that Thomas does not work entirely independently yet; that would also be too difficult considering the amount of product knowledge a good salesman requires. On a day when Thomas is allowed to participate more fully, he still makes several mistakes. George does think that Thomas works systematically and neat. In addition, Thomas has learnt that there is more to a sales conversation than meets the eye. He has become much more self-confident and feels much more comfortable at shop V. Thomas has mainly progressed regarding insight into the organisation of shop V and the chain. He feels **the most important progress was made regarding 'retail trade marketing'**. He also provides examples of the role of theory and how retail trade marketing manifests itself in practice. These findings indicate that he **has developed some work process knowledge**.

Thomas does think that he still has something to learn, for example to better have a way with words towards customers. **He rates himself '7' for 'shop performance'**. Although Thomas only has 35 % of the knowledge he should have to participate fully in the work at shop V according to George, **George would rate Thomas '7' for 'shop performance'** because he shows the motivation, listens well and learns well.

Thomas has gradually become more self confident regarding sales and more independent regarding the other tasks. Having gained more insight into the organisation and especially in 'retail trade marketing' concerns relating theory to practice, and the data indicate that he has also reflected on this. Consequently, **in addition to assimilation** for his gradual improvement, **reflection** has also played a role as an internal acquisition process.

Table 7.14: Summary of Thomas's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Thomas has **finished 'managing', 'presentation and promotion' and 'retail trade personnel' before the start of the study with a more than satisfactory grade: '7.2'**. He has started with 'retail trade marketing'. He reports that he has **learnt about the related theory** at school.

Thomas **likes school** because he feels he does learn something there, although in practice there are exceptions to the 'rules' learnt at school. He thinks the **'main practical assignments'** are more useful and more interesting than the 'information assignments' and **generally likes them**. He even **additionally conducts a study of employee satisfaction as part of the marketing research** assignment about the shop's image. Thomas **works on his learning process in a systematic and neat way** and is a **fast learner**. He only has difficulties with arithmetic.

*Social interaction and learning environment*

During the period of the study Thomas is working on the 'retail trade marketing' assignment booklet (402). He does not make use of the plans of approach, because it is too difficult to stick to the planning. He therefore just starts with the assignments. Thomas takes his **study hour** during a quiet moment of his WPL day. He does not plan asking questions to his WPL mentor George beforehand; however, **he can ask his questions in between**. He also asks other employees for help. Thomas **has the opportunity to carry out the tasks for the booklets**. For example, for the marketing research about shop V and the chain's image, Thomas has the opportunity to interview some customers. Thomas asks George for company documents, which George provides, and carries out a study of employee satisfaction in addition to the existing assignments. As soon as Thomas has completed the assignments, he asks George to check the booklet. They go over the booklet together and Thomas can make any required adjustments. Vincent normally checks the booklet before the examination meeting. However for '402' this does not happen because Vincent trusts that Thomas has made the booklet satisfactorily. Although George and Thomas report that they do not have planned, regular meetings, George thinks that in all, he spends around an hour per WPL day on Thomas's learning. He has supervised Thomas while doing main practical assignments or while checking the booklet for around five times during the period of the study.

Thomas and Vincent think **guidance is very good**, because Thomas can always ask questions and he is also asked how he is doing with his assignment booklets. Thomas does not have the opportunity to do managing in practice, however. George feels he coaches Thomas more than he would normally do, because he believes Thomas is an eager student. He thinks that **guidance from school is good** in Thomas's case.

During the examination meeting, Vincent asks the questions and George plays the role of finishing Thomas's words, explaining some things to Vincent or explaining things further to Thomas. Vincent has mainly played the role of checking Thomas's assignment booklets during Thomas's WPL. They have also phoned and Thomas has stopped by at school for example during the tutorial hour. Related **social interaction processes for 'learning to learn' are mainly transmission, experience, and activity**.

*Internal acquisition and outcome level*

Thomas initially appears to think that he basically already knew all he needed to know before the start of the study. Later, however, he reports that he has **made significant progress in 'retail trade marketing'**. Thomas is also **able to explain how school, theory and the assignment booklets have all contributed** to his learning. On the one hand, Thomas reports that theory is not extensive enough, because much more happens in practice, for example regarding customers' responses. On the other, Thomas thinks that being a branch manager is presented as more difficult at school than it really is. It is more likely, however, that **Thomas has not had sufficient opportunity to accompany the manager** in his tasks.

The **'402' grade is '7.3'**, although **George** comments to have **had to explain and discuss the assignments with Thomas** and that **Thomas** has **had to make additions** before George thought the booklet was worth a 'pass'. **Vincent** on the other hand **thinks that Thomas applies theory to practice** (which was shown for example in the marketing research) **and does well on the assignments**.

From the WPL teacher's account especially, Thomas appears to be a student who starts in time with assignment completion, and works hard and systematically, already before the period of the study. Thomas's **learning to learn skills do not seem to have improved much**, therefore. Thomas's comments on the role of school, theory, and practice, however, also as applied to his accounts of making the main practical assignments, indicate that **Thomas has reflected at least a little** about learning. Some **assimilation and reflection**, therefore, are the types of internal acquisition processes.



### 7.7.2 How can we describe Thomas's WPL learning processes and related learning outcomes?

We present the learning process elements in a format comparable to the research model, showing which specific influences play what role (positive or negative); to which types of social interaction and internal acquisition this has led, and what the related outcome is. This is shown in Table 7.15, 1-2.

Table 7.15, 1-2: *Thomas's learning processes, influencing factors and related learning outcomes*

#### 1. Shop performance

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ social atmosphere; opportunity to ask questions	- workload ('hard times'): shop V is not doing well, implying less opportunity for Thomas to do sales.  - division of work: little scope for Thomas to plan and evaluate the work himself  - work content: no opportunity to do managing	Range from perception to activity	7 (self-rated as well as rated by George); only has around 35% of the required knowledge to fully participate, however, he is motivated, listens well and learns well. Has mainly progressed regarding 'retail trade marketing' (graded '7.3') and has developed some work process knowledge.
<b>Integration measures</b>	+ WPL curriculum: gradualness + George's guidance + assignment booklet '402'			
<b>Learner</b>	+ motivation + prior knowledge		Assimilation and reflection	

#### 2. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>			Mainly transmission, experience and activity	Already knows how to complete assignments satisfactorily and in time before the start of the study. On the other hand George does need to discuss the '402' booklet with him before the examination meeting to complete it more satisfactorily. Is able to explain the role of school, theory and practice and appears to have reflected about this.
<b>Integration measures</b>	+ study hours + guidance: opportunity to carry out assignment tasks and ask questions (also to other employees); guidance experienced as good + Vincent's guidance experienced as good; however does not check '402' booklet before examination meeting			
<b>Learner</b>	+ motivation + sufficient prior knowledge; knows his theory + personality: works systematically and neatly		Some assimilation and some reflection	

Thomas's case shows what implications the disadvantageous economic environment ('hard times') in Retail has for learning in WPL. George did not even want to take any students in the first place (which applies to more shops in this period); however, he did not want to reject Thomas (and the other student) once he had met them. Still, Thomas is not easily allowed to do sales in shop V because this is risky. He has had no opportunity to do managing either, and because he does not seem to realise what it really entails, he does not seem to have had much opportunity to accompany the manager either. On the other hand, he experiences guidance at shop V as good. Thomas for example has the opportunity to carry out the tasks he needs to do for 'retail trade marketing', which he enjoys. In addition, he can always ask questions, also to other employees, and his WPL mentor discusses the assignment booklets with him. He develops by the range of social interaction processes through assimilation and reflection regarding shop performance.

Vincent does not need to push Thomas regarding 'learning to learn'. Thomas is motivated and able to plan and carry out his assignment completion. Vincent even trusts that he does not need to check the '402' assignment booklet before the examination meeting. Although Thomas might do better than many of Vincent's other students, this does not mean he has nothing left to learn about learning and assignment completion. George reports that he has still had to explain some parts of the assignment booklet to Thomas before the examination meeting. George also supervises Thomas's working on main practical assignments and has provided explanation regarding the assignment booklets. In the period studied Thomas has learnt by transmission, experience and activity through assimilation and reflection.

Thomas is satisfied with his WPL period at shop V. Although George does not think Thomas performs well enough yet to become an employee in shop V [mi], he has agreed that Thomas can continue his WPL at shop V next year [mi; si]: *"They really wanted to have me, so who knows what the future will bring. Or else I will just continue studying"* [si]. On the other hand, Thomas is afraid that he might be too old when he has finally finished for example Higher Professional Education, so he might rather follow company training [si]. Vincent really thinks Thomas should continue with his education, however [ti].

## 7.8 Victor's case

### 7.8.1 Summary of Victor's case

In Table 7.16, Victor's case background is summarised. Tables 7.17 and 7.18 show the summaries of the learning process descriptions for 'shop performance' and 'learning to learn'.

Table 7.16: *Victor's background display*

<b>Victor (w-b pathway)</b>	<p>Male aged 19, who decided to continue with a w-b pathway job because he enjoyed his spare-time job at the supermarket he was already working at before graduation from pre-vocational secondary education. He likes interaction with clients and colleagues and starts with Retail in another branch of the supermarket chain, shop Y, where his father is the WPL mentor (and manager). His course has started four years before the period of the study: he enrolled at level 2 and is aiming to achieve level 4 at the time of the study.</p> <p>Enthusiastic and motivated both for the work and for obtaining a diploma. Continues to 'Entrepreneur/Retail manager' from 'Branch manager'. Knows what he wants and is creative. Should, however, more often think first and then act, also in interaction with others. Victor thinks the course is very useful, although there are subjects that do not really make sense. He does report that he thinks he makes relatively little money currently. He also thinks it is time to round off his course, because it is already taking more than four years.</p>
<p>Learning environment</p> <ul style="list-style-type: none"> <li>- Training company</li> </ul>	<p>Shop Y is a franchise of a supermarket chain that aims to offer reasonably priced groceries and at the same time also offer special products. Making profit is central and at the time of the study a relatively small amount of employees often need to work long days. Yet the shop has grown much since it was franchised by the current owner. Victor has more than fifty colleagues in total. The atmosphere is really good. Employees need to have team-spirit and interact well with customers.</p> <p>Shop Y opens at 8 a.m. and normally closes at 8 p.m. The employees start at different times and have variable work times. Victor's typical work tasks at the non-perishables department are stacking shelves, dealing with customer complaints, ordering, and promotional activities. He also regularly supports the checkout department. On the observation day Victor replaces the regular vegetables salesman because he used to work at that department. He works on promotional activities and ordering and also answers customer's questions. Related to layout of his department, special offers, and ordering, he also carries out some accounting tasks at the PC. He mainly works on unloading the trucks with new produce department articles. Breaks are taken flexibly and possibly together and work is discussed during the coffee break (the manager and owner are present), which does not last more than 15 minutes. The observation day is rather hectic, because there are few employees and two employees are off and replaced by two less experienced employees. The work can be physically hard because products need to be moved and trucks need to be unloaded within a strict time span. The work can also be hard mentally because customers and colleagues all react in their own way, and because the employees have to meet stringent requirements at shop Y. Work is discussed in a weekly meeting and during work. Work schedules are also used. The chain of shops also has some guidelines and some strict rules that need to be followed. Victor usually knows what is expected of him. Within the guidelines and rules there is also scope for him to use his creativity and make decisions about ordering, for example. The manager, Victor's WPL mentor, also supports the shop floor activities sometimes when it is busy. The branch owner visits shop Y regularly.</p>
<ul style="list-style-type: none"> <li>- WPL curriculum and integration measures</li> </ul>	<p>Guidance: Arthur (the branch manager) as WPL mentor; he is also Victor's father. Nick is Victor's WPL teacher. In the period of the study Victor's modules concern the subjects 'purchasing and administrative management' (405) and 'business and legal management' (406) for which there are no WPL assignment booklets. At school, the theory lessons are traditional. To round off his course, Victor also needs to make a business plan.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- WPL at shop Y alternated with one day of school (theory lessons).</li> <li>- One progress evaluation.</li> <li>- One examination meeting (about '403') ten weeks after the start of the study.</li> </ul>

Table 7.17: Summary of Victor's Shop performance process

*Prior knowledge, motivation, emotion and personality*

Victor has passed 'retail trade marketing I', 'sales', 'presentation and promotion', 'managing', 'inventory management and cash desk control', and 'retail trade personnel' with an average grade of '7.2'. For 'branch management' he still needs to do his examination. He **has more than three years of work experience in shop Y**. Consequently, **Victor's 'shop performance' prior knowledge is more than sufficient**.

Victor is **really motivated** at work although he does not characterise most of his typical work tasks as really enjoyable, except 'ordering'. He **views the more difficult work tasks and problems such as understaffing as a challenge**. He likes working at the non-perishables because the work is varied and he also has to do more managing than before. Victor feels he has always been **customer-friendly** and able to interact with colleagues. The physical workload can be high when trucks need to be unloaded, and the work is challenging in terms of interaction with people. **Organising the work is what Victor finds most difficult**.

*Social interaction and learning environment*

Victor started with working in shop Y's vegetable department. He switched to the non-perishables a few months ago; however he also still works at the vegetables department as a replacement. He participates in a range of tasks at shop Y, such as receiving and checking products, part of ordering, and managing the shelf-stacking team (around ten employees). He deals with customer complaints at his department and also regularly works the cash checkout. On the observation day, he replaces the vegetable salesman. He mainly works on unloading trucks with fresh products this day. Victor is mainly responsible for unloading the trucks and having the shelves stacked in time.

Victor is also responsible for particular accounting tasks regarding for example shop layout. For these tasks he works on the PC in the shop office. **Work progress is discussed throughout the day with Arthur and another sales assistant and work problems are also discussed during the coffee break**.

**Victor can always ask shop Y's owner or his WPL mentor questions**. He and Arthur used to have weekly progress evaluations when Victor was still working on the assignment booklets. However now they usually discuss work during work and they also have the opportunity to discuss it after the work day, because they are family. In terms of assignment booklets, Victor only has theoretical ones left that are dealt with at school. **Shop Y's owner and Arthur still discuss performance with Victor regularly**. Consequently in the current period, Victor mainly learns by doing, asking questions to Arthur and shop Y's owner, learning from mistakes, and he has also recently followed a workshop about a particular vegetables product. Victor also discusses work and work progress with his fellow sales assistant. **Social interaction processes are mainly activity and participation, and transmission**.

There are some reasonably strict guidelines and rules for the work at shop Y, such as the work schedule saying at what time the truck with new goods should come and in how much time the products should at most be dealt with. **There is also scope for some planning and evaluation by employees themselves**, however. For example Victor has the opportunity to make some adjustments to ordering, even though this procedure is highly automated. Both the **work content and the division of work** therefore seem to be **advantageous**. On the observation day, both shop Y's owner and the WPL mentor Arthur appear to check up on the work progress now and then, and Arthur also asks the employees about work progress. Victor currently misses out on the weekly work meetings because he has school at that day.

*Internal acquisition and outcome level*

By now Victor functions as a sales assistant (one step up from the sales employees and below the department head). He appears to carry out his work tasks routinely and is able to explain his work activities well and extensively. He also knows about the guidelines and rules determined by the main office that apply to his responsibilities such as how the ordering process works. His **work process knowledge** amount appears to be **reasonable to high**.

Victor feels he has not progressed much in the period of the study. He does not have the job of branch manager or owner and that job has aspects which Victor is not much confronted with in practice. He has learnt a little about this at school in this period and the following related to WPL: "*It has just struck me that, also since I have a somewhat different role in the shop, but also since I started with Branch manager (the course) for example, that it's about other things than just shelf-stacking. It's probably also because I'm working on it now (the related theory books of '405' and '406'). Organising, guiding people, checking whether people (his colleagues/the shelf-stack team) have done something. (...) now it's supervision, you have to supervise and address people.*"

Victor still makes mistakes sometimes for which his WPL mentor calls him to account. He should also more often think and then act. **Victor self-rates his shop performance as '7'**. Arthur thinks Victor has 60 to 65% of the knowledge he should have to function as a Branch manager. He **thinks Victor has mainly become more self-confident at work. He would rate him as '8' for Shop performance**.

Victor has already developed to perform a broader range of tasks and also at a higher level and more independently before the period of the study with which he continues by **assimilation**. Victor has not progressed much regarding his practical 'shop performance' during the period of the study; however, he has learnt that there is more to the (future) job than stacking shelves. He is realising, also in practice, what it means to have a managing role, as is also shown in the interview fragment. We therefore conclude that **reflection** has also played a role.

Table 7.18: Summary of Victor's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Victor **finished his recent previous attainment target clusters with an average grade of '7.2'**, which is **more than satisfactory**. The attainment target clusters left for him to complete are the theoretical 'purchasing and administrative management' and 'business and legal management' (405 and 406) and he needs to make a business plan (414). **Victor is able to self-regulate his learning**. He **likes practice better than theory**; however, he is **motivated to obtain his level 4 diploma**.

**Victor does have some comments regarding his course**. He feels, **for example**, that **the teachers have little time available for the students**. Although Victor likes self-regulated learning, it becomes a problem when the students work in groups and work in different paces at school. He also comments that the assignments do not always relate to practice well. He does not find them particularly difficult or enjoyable either. On the other hand, the course does cover most of the required subjects; yet, some things you just cannot learn 'from the books'. **Victor normally prepares to the examination meetings** by studying the related booklet in advance. **For 'branch management' however, he does not have the opportunity to do this because Nick only returns Victor's booklet at the meeting itself**. This makes him nervous. **Victor is ready to round off his course by now**.

*Social interaction and learning environment*

**The WPL assignment-booklet part of the course is already finished for Victor** at the time of the study. This means that **at school he only has theory lessons**. He **does not have regular progress evaluations with Arthur anymore**. He has **one examination meeting ('branch management') in the period of the study**. Formerly, Victor checked the assignment booklets with help of Arthur after having finished them. If required, he made corrections and additions. After having checked everything, Arthur approved of the booklet and Victor handed it in. He elaborates the planning, the assignments and the reports on the PC at home. **Victor has not studied the related assignment booklet for the examination meeting because he does not have the booklet back in time**, even though he has already handed it in months ago. During the examination meeting Nick poses the questions to Victor in Arthur's presence. Victor does not know the answer to several questions, and both Arthur and Nick provide hints or Nick rephrases the question. Nick and Arthur usually agree about the grade.

**From the '405' and '406' assignment booklets** that are taught at school, **Victor does not really see much in practice**. The subjects include only some minor aspects about for example 'ordering' that he recognises. Although it is now taught at school, Victor reports that he does not have any knowledge about accounting and that he should learn more about that. About managing, however, he feels he is learning by observing and being instructed by shop Y's owner.

Victor himself takes the initiative for learning. He has just started with working on the business plan and has arranged for a meeting with shop Y's owner to discuss this. He also asks Arthur questions, however. So far he has occasionally asked the owner when he saw him busy with accounting, for example, for some explanation. **The involved social interaction processes are perception, transmission, activity, and participation**.

Both Victor and Nick think that **guidance by both Arthur and shop Y's owner is very good**. Arthur also feels that they invest much time in students. **This training company has recently been nominated for 'best training company'<sup>6</sup>**. **School can be rather chaotic**, however. Students need to make the planning themselves and carry out the tasks very independently as well. For his current lessons, Victor does think the teacher is good. Nick only has contact with Victor during the examination meetings, and claims to speak to Victor now and then when he is at school working on the attainment target clusters and when he is visiting shop Y for other students.

*Internal acquisition and outcome level*

Victor can be reflective, for example shown by his recent realisation about **what being a branch manager comes down to**. On the other hand, Victor also doubts the usefulness of school, particular modules and theory now and then, also because he already had relatively much work experience when he started. Yet, theory sometimes is "a little" supportive as well. During the examination meeting for 'branch management', Victor mainly provides the answers from the practical side and does not really seem to know the theoretical terms and concepts. On the other hand, he claims he could not prepare properly for the examination, and **was graded '7.6' (nearly 'good')** after all. **Nick is satisfied with the way in which Victor is participating in WPL and about his learning progress**. He feels Victor has grown strongly, also in terms of managing. Victor wants to stay at shop Y for now. He is looking forward to working on the business plan, because it includes many useful aspects.

Before the period of the study Victor already knew how to self-regulate his learning. In the studied period itself, he does not really have to do this anymore because he only has lessons at school. What is left for him to do, making the business plan, he is already preparing. For as far as Victor has learnt more about learning in the studied period, **assimilation and reflection** should be the internal acquisition processes.

<sup>6</sup> Presented by the Department of Education, Culture and Science each year.

### 7.8.2 How can we describe Victor's WPL learning processes and related learning outcomes?

We present the learning process elements in a format comparable to the research model, showing which specific influences play what role (positive or negative); to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is. This is shown in Tables 7.19, 1-2.

Table 7.19, 1-2: *Victor's learning processes, influencing factors and related learning outcomes*

#### 1. Shop performance

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content and division of work + social: frequent work discussions with colleagues from different levels + workload: 'hard times' a challenge to Victor		Activity and participation, transmission	Has become more self-confident; carries out tasks routinely and is able to explain his work well. Reasonable to high amount of work process knowledge. Feels he has not progressed much in the period of the study, however. Yet he is starting to realise that being a branch manager is more than just shelf-stacking. Between '7' (self-rated) and '8' (Arthur).
<b>Integration measures</b>	+ guidance: both shop owner and WPL mentor very much involved			
<b>Learner</b>	+ prior knowledge + motivation very high + personality: customer-friendly/good in interaction		Assimilation and reflection	

#### 2. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content and division	- work content: could be confronted more with his advanced course subjects in practice	Perception, transmission, activity, participation	Can be ambivalent towards school and theory; however is also reflective. Has not really improved regarding learning during the period of the study; however, is starting to realise now what being a branch manager comes down to. Nick thinks Victor has grown strongly and participates well in WPL. Victor is looking forward to making the business plan.
<b>Integration measures</b>	+ guidance: both shop owner and WPL mentor very much involved (best training company nomination)	- guidance: school can be chaotic, teachers have little time - guidance WPL teacher: Nick returns examination booklet late, has little time - no WPL assignment booklets this period		
<b>Learner</b>	+ prior knowledge + general motivation and goals		Assimilation and reflection	

Shop Y provides a beneficial learning environment in terms of work content and division of work. The 'hard times' also experienced - though negatively - in Thomas's case, are viewed as a challenge by Victor. In addition guidance both by shop Y's owner and the WPL mentor is very good. Victor is motivated to perform his work well and although he is not unequivocally positive about guidance at school and from school and about theory, he wants to obtain a diploma. By now, Victor generally participates as a full employee at Shop Y. In the studied period, therefore, nothing 'sensational' happens in terms of learning. Victor's course, however, is about becoming a branch manager or even an entrepreneur/retail manager. To this respect he is starting to realise something important, namely that being a branch manager or entrepreneur is more than just stacking the shelves. For example:

[Interview fragment R = researcher, V = Victor]

R: What do you think yourself, that you do not know or cannot do so well yet, or what you should learn?

V: To me mainly things like accounting apply. I see that as a rather tough subject. In practice, I don't really deal with that at the moment. That applies more to when you start your own business. Then you see entirely other parts of that. You don't have any knowledge of that now. Yes, at school we deal with that now, and we formerly discussed it (at school) for a small part, but that is so minimal I think.

In other words, Victor needs to be confronted more with his advanced course subjects during WPL.

The more 'independent' social interaction processes are dominant in his WPL, although he also still receives instruction and explanation which is why transmission is still included. Both regarding 'shop performance' and 'learning to learn' he develops by assimilation and reflection: he principally 'just continues' and gradually develops more knowledge; on the other hand he has also started to reflect on the role of theory and school and about what he should still learn. By now Victor has developed a reasonable to high amount of work process knowledge and is able to self-regulate learning well.

The fact that Victor is guided by his father means that he also has the opportunity to talk about work or his course outside work. Although Victor indeed makes use of this opportunity now and then, shop Y appears to be a beneficial learning environment for all students, shown by the 'best training company' nomination. Victor might identify more with the job of 'branch manager' because his father is one; however no extreme results due to the family relation could be detected.

Although Victor has shown to be a valuable salesman or assistant at shop Y, he still needs to fully prove himself worthy as a future branch manager or business owner, by completing the final theory modules and achieving the business plan. He is looking forward to achieving this, although he is not directly determined to start his own business. Unfortunately, this is also something he feels he is not supported with well enough from the school's side:

V: I actually really feel like it (making a business plan). Because there are elements that can be really useful. Or if you think later: I want to start my own business.

(...)

R: Is that something you're thinking about? Or is that still too far away in the future?

V: I don't really know what I want to do next. That's also something, if I ask them at school if they have information about that, they say: "*go to the Higher Professional College*", or: "*go collect some brochures there*". So it's not like they provide some guidance in that, like: maybe that would be something for you. (...) They're not going to advise me (...), go have a look there, what are you interested in? You all have to find out yourself.



## 7.9 Rachel's case

### 7.9.1 Summary of Rachel's case

In Table 7.20, Rachel's case background is summarised. Tables 7.21 and 7.22 show the summaries of the learning process descriptions for 'shop performance' and 'learning to learn'.

Table 7.20: Rachel's background display

<p><b>Rachel (w-b pathway)</b></p>	<p>Nineteen-year-old female student who initially wanted to be a hairdresser and completed the related course at the level of pre-vocational secondary education. Because of difficulties with finding a good w-b pathway position in that sector, reacted to a vacancy in shop X and started working there a couple of months before her course started. Has a flexible contract at shop X, which usually comes down to at least twenty hours a week. At the time of the study she works even more because of a colleague's maternity leave. Rachel would like more certainty and to work more. By now, she imagines working in a shop as more enjoyable than being a hairdresser.</p> <p>Friendly, quiet, responsible and critical person who wants to "do everything right" in the shop. The course is more self-regulated than she expected. Likes her fellow students at school and feels she is helped well by the teachers. Rachel wants to "make a success of my career". Thinks it is important to obtain a diploma. Likes being gradually assigned more responsibility in the shop.</p>
<p>Learning environment - Training company</p>	<p>Shop X is a fashion shop, part of a chain that aims to sell fashionable clothes for a reasonable price with families and increasingly also young ladies as a target group. A passive sales strategy is in operation. Employees should look presentable, be very polite to customers, and make sure that the shop is kept tidy. Rachel has five colleagues at shop X. Usually no more than two people work in the shop at the same time. The social atmosphere is very good and they communicate frequently and openly about work.</p> <p>Shop X's opening hours are usually from 9 a.m. to 6 p.m. and from 9 a.m. to 9 p.m. on late openings and 9 to 5 on Saturdays. These are also in principle the work times; however employees need to be there fifteen minutes early and should not leave before cash desk control is finished and before the shop is tidy. This means the working day can be extended with around half an hour. Rachel typically works on the cash desk or helping customers, dealing with newly arrived clothing, making presentations, keeping the shop tidy and cleaned, and cash desk control. On the observation day, Rachel and her colleague (assistant manager) are changing price tags for a large part of the observed period, which takes place every new season. After that, they always make the shop tidy. The district manager stops by to help with a cash desk problem and also to check up on the price tag changing process. Employees have an hour lunch break around noon or an hour later. There also is a short coffee break. Breaks are always taken individually, because there are not enough people at work at the same time otherwise.</p> <p>Although there are usually some customers in the shop, it is never really very busy. The physical workload can be high when heavy boxes of products need to be lifted, for example. They also often need to do much at the same time. Working days are also often longer and not paid extra in that case. Rachel, however, does not characterise the work as hard and she does not find it difficult anymore.</p>
<p>- WPL curriculum and integration measures</p>	<p>Guidance: Nick as WPL teacher (also Victor's case) and Joan as WPL mentor (shop X's branch manager). New students are shown around the shop and explained the work, and accompany Joan. Rachel participates gradually more in the work and by now practically participates in all types of work tasks. Rachel is even allowed to run the shop on her own on particular parts of some days, and to do cash desk control when Joan is absent.</p> <p>Rachel works on assignments at home and can ask Joan questions, although Joan wants to spend little time on that. At the time of the study Rachel has handed in the booklets for 'inventory management and cash desk control' and 'managing' and has 'presentation and promotion II' and 'retail trade personnel' left to do. At school she works on the theoretical attainment targets in groups.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- WPL at shop X alternated with one day of school (self-regulated learning about theory).</li> <li>- An examination meeting about '303' one week after the start of the study, and an examination meeting about '301' six weeks after the start of the study.</li> </ul>

Table 7.21: Summary of Rachel's Shop performance process

*Prior knowledge, motivation, emotion and personality*

Rachel has worked at shop X since the start of her course and already started with doing cash desk control around a year ago. She has passed the attainment targets before the period of the study with a good average grade. She has also handed in the assignment booklets for '301' and '303', and will start with '302' (presentation and promotion) and '401' (retail trade personnel). Rachel has also nearly obtained the clothing certificate (see 7.3.4). Her **prior knowledge of 'shop performance' is consequently sufficient.**

**Rachel is motivated for the work and practically likes all work tasks.** She likes working with the cash register and doing cash desk control, for example, because she finds the range of cash register possibilities interesting. It is not difficult anymore. Making presentations is also enjoyable, and can be a little more difficult. **Rachel especially likes it that she has gained more responsibility in the shop.** She has had this responsibility for around six months. Joan thinks **Rachel is always open to improvements in her performance and therefore listens well to Joan's feedback.** She **learns fast** and can also be critical.

*Social interaction and learning environment*

When Rachel started at shop X her WPL mentor first showed the shop, explained how things worked and Rachel accompanied her for a while. She gradually participates more in the work and keeps receiving feedback on her performance by Joan. She also asks questions herself. Joan does not only explain how things should be done but also why. Rachel works on the cash register, making presentations, receiving and sorting new clothing, cleaning up and cash desk control. Within the period of the study, shop X also has its twice-a-year special sales period. This involves decorating the entire shop in addition to the shop-window. Rachel is also helped by other colleagues such as the assistant manager. When Rachel is working in the shop alone, she can call the WPL mentor for help if required. Work tasks such as making presentations, window-dressing and changing price tags are usually carried out together. Rachel also fulfils a guidance role herself: she helps a recently hired girl by explaining the work to her. This makes her think about how to explain her work to others. The involved **social interaction processes** by now are **mainly perception, transmission, activity and participation.**

**Rachel is satisfied with guidance.** Joan's strategy for helping Rachel becoming more self-confident and responsible is to give her confidence, check up on her every now and then and give her compliments. Towards the final weeks of the study, Joan's work hours are reduced because of an injury. This also influences Rachel's increase in responsibilities positively.

Rachel thinks it is a disadvantage that there are no regular work discussions at shop X, because the entire team never comes together this way. On the other hand, **they do discuss the work frequently during work time, also with the district manager** who stops by during the observation day. Work procedures are prescribed to a large extent, in the sense that the work is done in a particular way and everyone involved is explained this way by the branch manager or the district manager. Either the branch manager tells Rachel what to do in the morning, or she or the assistant leaves a note or the district manager sends a fax. For particular tasks lists are also used. During the observation day, the branch manager is not present and the assistant manager tells Rachel what to do. While they are working, she keeps an eye on Rachel and asks her now and then how she is doing. She also tells Rachel when she can have her afternoon break. Consequently, **on the one hand the division of work seems rather strict, on the other, Rachel does have the opportunity to run the shop on her own sometimes.** If there would be a less strict division of work, it might be too difficult or too overwhelming.

*Internal acquisition and outcome level*

Rachel has been allowed to do cash desk control since around a year ago, and is even able to run the shop alone at particular parts of the work day. She is also able to explain the 'how's and why's' of the work well. Rachel is also able to explain the district manager, branch manager and assistant manager's role and responsibilities, and reflects a little about what should be changed in shop X. She **appears to have developed a high amount of work process knowledge; however, practice appears to be Rachel's starting point,** and she should apply theory more.

**Rachel** also feels herself that she is doing well, and **rates her shop performance as '8'.** She does not feel she knows 'everything' yet. Although Rachel does not feel she has progressed significantly during the period of the study, the increase in responsibility to the level of being allowed to run the shop alone is recent. Joan mainly thinks that Rachel should become a little less untidy; however, Joan appears to be extremely focused on tidiness in the shop. Rachel should also learn to treat the shelf-stacking help with more tact. **Joan rates Rachel '7.5'** for shop performance. She is ready to give Rachel even more responsibility.

Rachel has progressed surely, though very gradually, throughout her WPL. Although she feels she has not progressed significantly during the study, she has achieved another step in becoming more independent in the shop. She does not feel the assignment booklets apply to her shop, however, and explains the how's and why's of the work mainly from the shop's viewpoint. The internal acquisition process for 'shop performance' therefore appears to be **assimilation.**

Table 7.22: Summary of Rachel's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Rachel has passed the previous attainment targets with the good average of '8'. She only needs to do the examination meetings for '301' and '303' and complete the attainment target clusters of '302' and '401' to finish her course. **Her prior knowledge of learning therefore appears to be sufficient, although Nick thinks theory has a lower priority for Rachel and she underestimates that.** Rachel does not see the use or relevance of the WPL assignment booklets. She does like school, although she feels she has to get used every time when she has worked for a week. She likes her fellow students and appreciates the teachers' help. She is satisfied with the course. It is more self-regulated than expected, however, and **she would not have minded a higher frequency of traditional lessons. In the period of the study, Rachel is getting a little behind with school. She has to work much and invests less time in learning.** She also feels that the examination meetings are becoming more difficult.

*Social interaction and learning environment*

Rachel has two examination meetings (301 and 303) left and should start working on 'presentation and promotion II' and 'retail trade personnel'. She **has not worked on any assignments during the period of the study**, however. At school, she works on the theoretical attainment targets in groups.

Rachel normally starts working on the booklets without using the planning. She leaves open the questions she does not know the answer to, and discusses them with Joan before she needs to hand in the booklet. If Joan does not know the answer either, Nick helps her with the questions. Joan checks whether Rachel has completed her assignment booklets satisfactorily. She does not grade them, however. Nick also checks the booklets. **He does not specifically provide feedback** on them either; however, he determines the grade after the examination meeting. Rachel feels she only needs to prepare for the examination meetings by thinking about possible questions. She knows most of what is going on in the shop anyway. During the '303' examination meeting, Rachel's WPL teacher Nick poses the questions and Joan is not present because she attends the shop. Rachel usually immediately reacts with explaining how the procedure that is asked about works in shop X. Nick often asks for more explanation. In this meeting **Nick tries to explain how Rachel should handle the questions that deal with specific procedures she thinks do not apply.**

Nick thinks that **shop X's chain does not give priority to learning, and that what Rachel works on in practice is of a lower level than what she should learn for her course.** For Rachel's case specifically, this does not seem to apply, however, because **she appears to have a relatively high responsibility and has the opportunity to carry out a range of tasks in the shop** that usually cover at least some aspects of the related assignments. **On the other hand, little time is reserved to spend on students' learning. Although Rachel is satisfied with guidance at shop X, she reports that Joan does not want to pay much time on the booklets. For example, she is not allowed to follow the booklet strictly and use the main practical assignments for her learning.** In turn, **Joan reports that Rachel always comes to discuss her assignment booklets rather late**, and that it takes Joan a couple of hours then to check them. She would rather want to discuss it fifteen minutes on a weekly basis. Nick does think that Joan's guidance is good. Joan does claim that she feels responsible for Rachel's learning. Rachel does report that she makes use of what is explained at school, and this is confirmed by Joan. Nick visits shop X for the examination meetings and keeps in touch with the chain's district managers. He sometimes talks to Rachel (in between) at school. Despite his small role, he does address her regarding use of theory. Rachel feels she is helped well by the teachers at school. The **social interaction processes** related to learning are **perception, transmission, some experience, and activity.**

*Internal acquisition and outcome level*

Rachel has mainly become more self-confident and independent in the shop during the period of the study. She has not explicitly worked on her learning process. Her grades for the examinations were 'more than satisfactory' (301) and 'good' (303). Rachel did require a few hints in the examination; however, the grade seems to be representative. Nick does point out that she should make more use of theory. She also finds it increasingly difficult to combine her full work weeks (a result of Joan's injury) with school and is therefore getting behind. This means that Rachel needs to do some re-examinations after the summer holiday. She is not much behind in relation to the prescribed time, however.

Even though Rachel has passed the examination meetings and has learnt at least a little during the period of the study, regarding learning itself she does not seem to have made progress; rather she gives it less priority and has a hard time combining it with work. Although it is not strong, and Rachel also starts to realise that she should catch up on her learning, the process is mostly comparable to **resistance.**

### 7.9.2 How can we describe Rachel's WPL learning processes and related learning outcomes?

We present the learning process elements in a format comparable to the research model, showing which specific influences play what role (positive or negative); to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is. This is shown in Table 7.23, 1-2.

Table 7.23, 1-2: *Rachel's learning processes, influencing factors and related learning outcomes*

#### 1. Shop performance

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>	+ work content in combination with division of work: has responsibilities; however it is also clear what she should do and how + good social atmosphere and frequent discussion of work		Perception, transmission, activity and participation	Is already able to run the shop alone now and then, explains the 'how's' and 'why's' of the work well, and knows responsibilities of employees at different levels: work process knowledge. Lacks synthesis with theory, however. Shop performance is rated from '7.5' (Joan) to '8' (self-rated).
<b>Integration measures</b>	+ WPL curriculum and Joan's guidance			
<b>Learner</b>	+ prior knowledge + motivation + personality: wants to do things right; open to improvements and learns fast		Assimilation	

#### 2. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>		- work content: not entirely representative in relation to course? - workload: Rachel has recently been given more hours; days are also often longer/time for learning not recognised by chain?	Perception, transmission, some experience, activity	Has not explicitly worked on learning during period of study. Is getting behind with school because combination of work and school is becoming harder.
<b>Integration measures</b>	+ guidance: help by teachers at school	- curriculum: lack of traditional lessons (theory) - WPL teacher guidance: no specific feedback on booklets - WPL mentor guidance: wants to spend little time on booklets		
<b>Learner</b>	+ general motivation and goals	- motivation (for theory)	Resistance	

Shop X's work procedures are largely subject to a strict division of work. Orders are normally given by the main office or district manager, Joan, and the assistant manager, leaving little initiative to Rachel. On the other hand, she is also allowed to run the shop on her own sometimes and although there are still clear instructions then, she also has some scope for making decisions as well. In addition, she then supervises the new shelf-stacking girl. Joan's guidance of gradually allowing more responsibility with decreasing supervision, in combination with Rachel's motivation, result in more self-confidence and good 'shop performance', by assimilation. From shop X's viewpoint, Rachel knows much about responsibilities at different levels and the work procedures; however, synthesising theoretic knowledge appears to fail.

Rachel has not only been given more hours because she has proved to be able to deal with the work. Joan also has an injury and another colleague has taken maternity leave. Work is becoming more demanding, therefore, while learning and theory already have less priority for Rachel. She especially does not seem to recognise the assignment booklet's relevance, and Joan's attitude reinforces this idea. Nick's hints regarding use of theory do not seem to be picked up by Rachel and he fails to give her specific feedback on her booklets. She finds it increasingly hard to combine work and school and is getting behind. Nick also thinks that shop X's work content is not supportive in this sense. Rachel explains the work procedures only from shop X's viewpoint indeed. However, the fact that Rachel herself and her WPL mentor or the chain do not recognise the role of theory shown for example by not using the main practical assignments in the WPL booklets, seems to be more related to this. Although Rachel reports that she is supported well at school, she misses traditional lessons for the explanation of theory and seems to treat theory as separate from practice. In terms of learning, she has consequently not progressed in the period of the study. Rachel's general motivation and goal to make a success of her career especially appear to make her persist with the course at this moment.

At the start of the study Rachel reports that she is planning to continue with level 4, "*if this (the upcoming period) goes well*" [si]. Towards the end she does not feel that way anymore, possibly because she has a hard time combining school and work. She is also ready for a more challenging work environment, a busier, larger fashion shop [si]. Nick thinks this would be good for her [ti]. Joan and Rachel have not discussed Rachel's plans [mi]. Rachel still needs to take some re-examinations to finish her course [si]. At least she thinks this line of work is much more enjoyable than being a hairdresser.

## 7.10 Steve's case

### 7.10.1 Summary of Steve's case

In Table 7.24, Steve's case background is summarised. Tables 7.25 and 7.26 show the summaries of the learning process descriptions for 'shop performance' and 'learning to learn'.

Table 7.24: Steve's background display

<p><b>Steve (w-b pathway)</b></p>	<p>Male aged 20, who finished junior general secondary education before starting with the w-b pathway 'senior salesperson' in sports shop Z. A couple of years before he was working in another type of shop while doing junior general secondary education, and started with the w-b pathway there. Then switched to taking service which did not turn out to be what he wanted. Returned to the Retail course one-and-a-half year before the study. Thinks shop Z is "<i>beautiful</i>" and likes sports and fashion.</p> <p>Friendly, spontaneous person who comes across as motivated for achieving his course. Self-confident and a little 'fresh', running the risk of overestimating himself. Is also someone who "<i>rather does than learns</i>". Participates in the w-b pathway because he would not like to be at school for the larger part of the week and also wants to earn a living. Attends school merely because he does want to obtain a diploma. Had expected the course to be more difficult. This is his second and final year.</p>
<p>Learning environment - Training company</p>	<p>Shop Z is a very large sports shop, with more than five different departments, part from a large chain that aims to offer reasonably priced quality products. Employees need to be presentable, take sales seriously and advise and motivate customers, especially at Steve's department fitness and running. There are more than 40 colleagues in total. After some personnel issues in this new shop, management has become more people-minded and the atmosphere at shop Z is improving at the time of the study. Steve's WPL mentor reports about shop Z's atmosphere and communication more positively than Steve.</p> <p>Shop V opens at 10 a.m. (and closes at 9 p.m. except on Saturdays). Steve works from 1 p.m. to 9 p.m. or from 10 a.m. to 6 p.m. Employees need to be in the shop five minutes before opening time to clean up. Typical work tasks for Steve at his department are making presentations, returning products, delivering fitness devices, and putting products in the appropriate place in the shop. He has also worked on inventory once. Helping customers and keeping the shop tidy are continuous activities. Breaks are taken with part of the team together: half an hour for lunch (early shift) and one hour for dinner (late shift). There is also a fifteen-minute coffee break.</p> <p>The observation day is a special sales day for which management provides extra instructions, lunch, and dinner. The observed part is less busy than expected; however, before and especially afterwards it is very busy. Steve does not characterise the work as hard, although the workload can be high when delivering fitness devices, and it can be difficult to keep customers who are not seriously interested away from the fitness devices in the shop. Although the shop can be very busy, Steve complains about the fact that it can be very quiet also, on weekdays, and that promotional activities are not sufficient. Mark, Steve's WPL mentor, also thinks the shop could be more eye-catching.</p> <p>Employees know what to do at their department. Supervising employees such as the assistant department manager check performance. A work plan is in operation and one of the two department heads of shop Z who know about the entire range of tasks, is always present. Steve works at his department independently at the level of salesman, and generally knows what to do. He sometimes helps customers at adjacent departments. He should pass on problems to the department head or his assistant.</p>

Table 7.24: *Steve's background display (Continued)*

<p>- WPL curriculum and integration measures</p>	<p>Guidance: Mark (shop Z's assistant manager) as WPL mentor and Paula as WPL teacher (has only recently taken over from another teacher). New students at shop Z receive information about products and sales and are loosely coupled with a more experienced colleague to gradually participate more in the work. The department head, WPL mentor or the chain's layout manager provide feedback on performance. There are also product information clinics in which Steve has participated. Mark thinks that the students are left to do as they like at/from school. However guidance at shop Z is not very intensive either.</p> <p>At school there are only lessons in the beginning of a new attainment target cluster. The remainder of the period students work independently. Steve works on theory and related WPL assignments at school or at home. Mark answers any questions, at work. At the time of the study, Steve has already handed in his (final) WPL assignment booklets for 'managing' (301) and 'inventory management and cash desk control' (303), meaning the only WPL part left to do is the related examination meeting.</p> <p>Schedule:</p> <ul style="list-style-type: none"> <li>- WPL at shop Z alternated with one day of school (self-regulated learning about theory).</li> <li>- One examination meeting (about '301' and '303') eight weeks after the start of the study.</li> </ul>
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Table 7.25: Summary of Steve's Shop performance process

*Prior knowledge, motivation, emotion and personality*

Steve has worked at shop Z since the start of his course. A few years before, he also worked in a shop, although in a different type. Steve has passed the attainment target clusters preceding the period of the study with a more than satisfactory grade. Only his WPL examination meetings for 'managing' (301) and 'inventory management and cash desk control' (303) are left to do. Steve has also obtained the sports certificate (see 7.3.4). **His prior knowledge of shop performance therefore appears sufficient. On the other hand, at the start of the period of the study Steve becomes responsible for the fitness and running department on his own, about which he still has much to learn.**

Steve **likes his typical work tasks** and generally finds them interesting. He does not characterise anything as difficult. Nevertheless, during an interview and the observation day **the situation of having to deal with customers who are not seriously interested in the fitness devices** and therefore should not enter them, **appears difficult**. Although Steve has discussed this with Mark, he still does not have the solution to this problem. **Steve has also started transferring delivery of fitness devices to a colleague because it costs him too much time.** Steve tends to find the more mentally challenging tasks such as making presentations the more enjoyable ones. He also **likes the variety in products and related work tasks in his department.** He **likes stepping in at other departments**, although he is **actually supposed to stay at his own.** On the other hand, Steve's sales strategy appears to be more passive than it should be, and Steve also once reports that he sometimes differs of opinion about this with Mark.

*Social interaction and learning environment*

When Steve started at shop Z he received information about products and about sales. He took the initiative himself to read brochures with product information available at the shop. He was mainly taught the ropes regarding his main tasks sales and keeping the shop tidy by a fellow colleague at the fitness and running department. Mark reports that the main guidance strategy is to provide guidelines, have students participate in the work and then ask them why they are making particular decisions and adjust performance if required. By now Steve mainly works alone at his department. He **can ask the department head** and the WPL mentor **for help.** In addition to sales and keeping the shop tidy, Steve works on putting products in the appropriate place, returns, and making presentations. **The shop's layout manager provides guidance regarding 'making presentations'.** This layout manager first explained the procedure, provided examples, and supervised Steve while he was experiencing. They still discuss new presentations that need to be made for the shop. Steve also takes the initiative for learning new things himself. Regarding making presentations, Steve takes the initiative to make the department more well-organised and eye-catching. The range of social interaction processes from **perception to participation, apart from imitation**, has been involved.

On the observation day, 'sales' is most important because it is a special promotion day. **Mark and Steve do not interact during the observation period;** Mark is selling shoes at that department. Mark does report that he instructed Steve - and other employees - in advance and kept an eye on him. Actually the other manager is supervising Steve this day (although this is not observed). Mark reports that the work pace was especially high during the non-observed hours.

*Internal acquisition and outcome level*

By now Steve works at his department alone and rather independently. He is able to explain the 'why's and how's' of his typical work tasks extensively. He also indicates making use of theory. During the observation day, there is also an example of a situation in which Steve sells a particular product and uses his knowledge of the product to advise the customer and convince her to buy the product. In addition, Steve for example knows what types of products are available in each department of shop Z, refers to responsibilities of the visual merchandiser and the main office or to what his department needs to report to the main office. It also turns out that Steve has dropped in at other departments because he would soon have his sports certificate exam and because he would then be able to help customers at other departments better as well. The findings consequently show that Steve has developed a **reasonable to high amount of work process knowledge. Steve would rate himself '7.5.' for 'shop performance'.**

On the other hand, **there is also something left to be learnt.** Although dealt with in theory ('301'), for example, Steve does not know how to make a work schedule for shop Z, because he has never had the opportunity to do this in practice. Although Mark thinks Steve has progressed most in sales, during the observation day, Steve **does not seem perfectly customer-oriented.** Indeed, **Mark would rate him '6.5' for 'shop performance'.** **Mark thinks Steve has 60% of the knowledge he needs to do the work he is trained for at shop Z;** however, **regarding his own department alone it would be 80%.** The most important thing for Steve to develop in is becoming more 'grown-up', to be able to concentrate the entire work time.

Steve reports that he has become responsible for the fitness and running department more or less at the start of the period of the study, and that at first, he did not know 'anything' about that. He has first worked there together with a colleague, however, and also received guidance from the layout manager and the department head or the department head replacement. He indicated himself when he did not know particular things. The findings show that in the period of the study, Steve has developed more knowledge about his department and the broader work process by **accommodation, assimilation and reflection.**



Table 7.26: Summary of Steve's Learning to learn process

*Prior knowledge, motivation, emotion and personality*

Steve has passed his previous attainment target clusters with the more than satisfactory grade '7.3'. The only clusters left to complete for him are 'managing' (301) and 'inventory management and cash desk control' (303). **His prior knowledge of learning therefore appears to be sufficient.** Although Steve feels that his course is running smoothly and is rather easy, at work he feels he needs to take much initiative to have his WPL mentor provide guidance. He is always allowed to ask questions; however, he **feels he is appointed as a salesman rather than a 'senior salesperson' student.** Steve could, on the other hand, invest more time in learning because his grades are not outstanding. He **does not think**, however, that **the WPL assignments are very useful**, mainly **because they do not relate much to his activities in the shop.** School theory he does find supportive. According to his WPL mentor Mark, **Steve is relatively serious regarding his learning process.** He makes sure, for example, that the WPL booklets are handed in on time.

*Social interaction and learning environment*

**Steve does not have to make any WPL assignment booklets anymore.** Formerly, Steve would just start with the WPL assignments (at school or at home), not using the booklets' planning. For questions, he would make an appointment with his WPL mentor. He also made the main practical assignments and discussed his performance with Mark. In the period of the study, Steve has had an assignment booklet discussion with Mark twice. When a booklet was finished, Mark would check it and Steve would hand it in to his WPL teacher. Then the examination meeting would take place. Steve does have one examination meeting (about 301 and 303 respectively) in the period of the study. In reality, Mark has only checked one of the related booklets. Steve is more nervous for the examination than normally, because he feels he is hardly confronted with these subjects in practice. He does not study the related booklets in advance, however: Paula keeps the booklets until the meeting and Steve does not ask for them. Steve has also participated in two product information clinics at shop Z.

In the examination meeting, Steve's WPL teacher Paula uses an examination form. Many of the situations she poses for Steve to provide a solution to seem rather hard to imagine. **Mark** has a copy of the form and scores simultaneously. He sometimes provides hints to Steve; yet more often he **explains the procedures to Paula, which then prevents Steve from answering.** Nevertheless, Mark reports in the interview that the examinations should be a little more difficult! In addition, **the right answers**, in the situation where Steve does not know them, **are not given by Paula nor Mark afterwards**, except for some general feedback, raising the question whether Steve would be able to handle them even after the meeting even though he receives a high grade. **Still, Paula concludes that Steve has done well.** Mark is briefly absent twice during the examination. The involved **social interaction processes are perception, transmission, activity, and participation.**

Steve thinks **guidance at school is good.** The teachers help when he has questions. **At work, however, guidance is not intensive.** Steve thinks this is because Mark is less experienced. He **would really like to receive more guidance**, because now he feels he is just working, as a salesman and has little opportunity to learn about other things than in his immediate work environment. Steve can ask questions; however he needs to take the initiative himself. Mark is normally usually in the office; however he does keep an eye on Steve when he is at the shop floor. **Mark is not Steve's primary source of guidance. Steve feels he has learnt much from the department head (Michael) and the layout manager (Betty).** Steve **has also experienced the product information clinics as useful.** Paula also thinks that Mark has too little time to provide guidance, and Mark thinks Paula also has too little time for guidance because she is responsible for so many students. **Paula does acknowledge that she has played a small role in Steve's WPL.** She was also only involved a few months ago. She did visit the training company for a WPL discussion when she became the new WPL teacher, and also talked to Steve at school. **Mark reports that they agreed to have contact more often; however, nothing has changed so far.**

*Internal acquisition and outcome level*

Steve has mainly learnt to run the fitness and running department in the period of the study. Mark also thinks Steve's 'freshness' has reduced. Steve raises an unpleasant situation of having to keep customers who are not seriously interested away from the fitness devices as a learning situation he discussed with Mark. Mark only told Steve he handled it well by not arguing with the customers, however. Steve still does not know what to do next time. In the examination meeting, Steve does not show much reflection. On the other hand, he is aware of the role of theory and school in his learning process, and values that particular subjects that are not dealt with or he is not confronted with at his training company, are taught at school.

Although Steve does not always have or take the opportunity to answer extensively or well-founded in the examination meeting about '301' and '303', for '301' he has obtained '8.7' and for '303' he has obtained '8.6' (between good and very good). Yet he self-rates his 'managing' as '6.5' at most and his 'inventory management and cash desk control' as '7'. Mark also comments that Steve should delegate more for example to the warehouse employees when he needs particular products. Consequently, although Steve might have done well according to the examination meeting's standards, he still has a lot left to learn regarding the examined subjects. Regarding learning itself, he has done well throughout his course, having finished it within the prescribed two years. Although there are also examples of not following through on particular problem situations or subjects Steve does show some instances of **reflection. Assimilation** has been the main internal acquisition process.

### 7.10.2 How can we describe Steve's WPL learning processes and related learning outcomes?

We present the learning process elements in a format comparable to the research model, showing which specific influences play what role (positive or negative); to which types of social interaction and internal acquisition these appear to have led, and what the related outcome is. This is shown in Table 7.27, 1-2.

Table 7.27, 1-2: *Steve's learning processes, influencing factors and related learning outcomes*

#### 1. Shop performance

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>		- size/work content/division of work: restricted to one department, hardly confronted with managing tasks, hired as a 'salesman'; hardly confronted with '301' and '303' subjects	Range of social interaction processes from perception to participation, except imitation	Works rather independently at his department, is able to explain much of the 'how's and why's' of his work there. Also uses theory at work. Is able to explain responsibilities of employees at different levels: appears to have developed a reasonable to high extent of work process knowledge. Shop performance: '7.5' (self-rated) and '6.5' (Mark). Mark: Steve has 60% of knowledge for entire shop, and 80% for his department, should become more 'grown-up'.
<b>Integration measures</b>	+ guidance layout manager and department head	- guidance by Mark not intensive; what are the right answers to particular problems? (keeping particular people away from fitness devices/examination)		
<b>Learner</b>	+ prior knowledge; although still has to learn about his department + motivation		Accommodation, assimilation and reflection	

#### 2. Learning to learn

	Positive (+)	Negative (-)	Social interaction and internal acquisition	Outcome level
<b>Training company</b>		- work content/division of work: appointed as 'salesman' rather than 'senior salesperson' student	Perception, transmission, activity, participation	There are instances of Steve showing to be reflective, and there are instances where this does not show. Has obtained good grades for the final examination meeting, although he feels his grades should be lower in reality: still has much to learn regarding these subjects. Nevertheless, has finished the course within the prescribed time.
<b>Integration measures</b>	+ guidance by teachers at school; although Paula has played small role + guidance by department head and layout manager + product information clinics	- guidance by Mark not intensive - examination meeting		
<b>Learner</b>	+ prior knowledge + motivation: finds school supportive, would like more guidance at work	- motivation: could invest more time in learning; does not find assignments useful	Mainly assimilation and some reflection	

Shop Z does not provide a beneficial learning environment for Steve. He feels restricted to his own department, working as a salesman rather than being trained to become a senior salesperson. Guidance, at least by Mark, is not very intensive either. Although no high workload-influence was identified for Steve, time pressure might be high for Mark, which negatively influences his time for guidance. He is also relatively little experienced as a mentor. Steve takes the initiative for learning about the shop and its products himself, asks questions and is instructed and explained the work by the layout manager and the department head, and sometimes asks the WPL mentor questions. He develops by perception, transmission, experience, activity and participation mainly through assimilation, reflection and some accommodation to a satisfactorily to good 'shop performance' level and with a reasonable to high amount of work process knowledge.

Steve could perhaps invest more time in learning; on the other hand he already takes school seriously enough to finish it within the prescribed time period and shows on different occasions that he is motivated to learn. Steve is satisfied with guidance received at school although Paula has not played a large role in his WPL. Steve rather receives help from the department head and the chain's layout manager and in combination with his prior knowledge and motivation manages to obtain good grades and become a little more reflective by assimilation and reflection.

Steve has completed his course at the end of the period of the study, and will soon obtain his diploma [si]. At first, Steve wanted to continue with level 4; however, he changed his mind. His ambition is to become a state agent and Steve does not lose any time: he starts with the related training as soon as his course is completed [si]. This means that he keeps working at shop Z, with extended working hours, and completes the part-time state agent training in evening classes [si; ti]. Steve thinks this would be more useful for him than working in a shop, and he feels that now is the time for him to obtain some more diplomas [si].

Although Steve will eventually achieve his goal, it is a shame that he is a loss to Retail. He did find shop Z a "*beautiful shop*", and might have wanted to stay and continue with level 4 if he had been confronted more with the more challenging aspects of his course:

S: Look, you have your diploma, whatever, that will be the case everywhere. You work here as a salesman, but you have a diploma for 'senior salesman'.

R: Yes.

S: But that does not mean that you'll be offered a contract as a senior salesman. (...) That is kind of a disadvantage. Or, a disadvantage. Look, because of you... You are responsible for the entire doings there (shop Z). (...) S: Yes, that is what I think should have happened at the least, actually (being offered a contract for senior salesman).

R: OK. Wasn't that your plan? To just stay here and obtain a contract?

S: Yes certainly. I will have a contract until the first of October. So there will be a discussion about that the end of August and then I will certainly raise that matter with them. Yes.

R: OK. But you expected that it would be converted (to senior salesman) automatically.

S: Yes, I did not expect that... Yes I thought they would raise that matter with me.

R: Ok, that they would say...

S: Yes, because. Well anyway they don't communicate that with you at all.

### 7.11 Cross-case comparisons and conclusions Retail

#### 7.11.1 How can we describe WPL learning processes and related learning outcomes in the Retail cases?

##### Learning processes and their influences in Retail

In this subsection we present the cross-case conclusions in the same way as in the Care chapter (6.7). First we present the recurring influences from the learning environment and the learner in the research model as shown in Figure 7.1. In the next two subsections we discuss these influences and their effect on the learning processes. Subsequently, we go into the types of learning processes and the outcome levels that were achieved in the Retail cases.

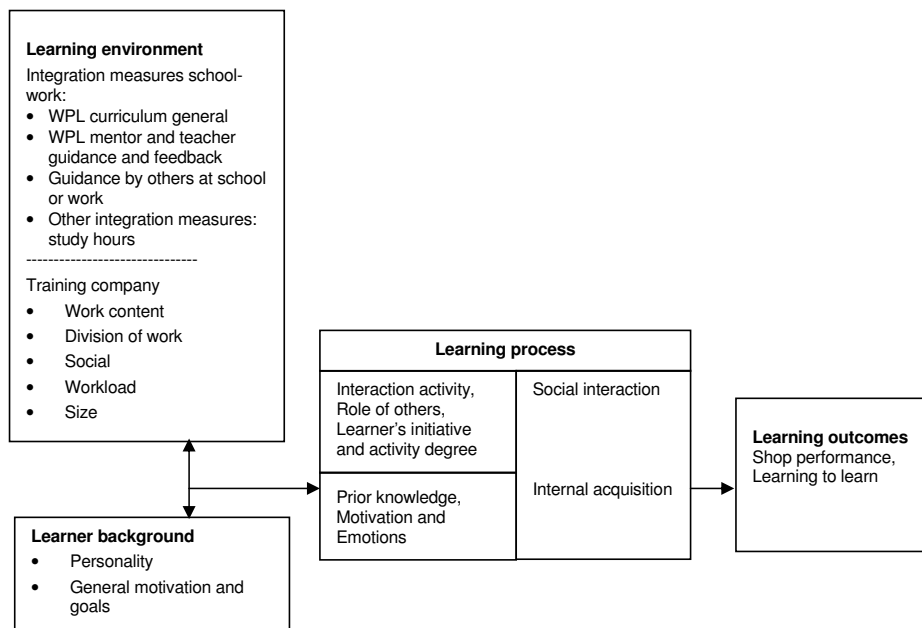


Figure 7.1: Influences on the learning process for the Retail cases in relation to the research model

##### Learning environment Retail cases

###### *Training company*

The training company influences as included in the research model are identified in the results. The work content in the Retail cases is not always representative of the course and in that sense has a negative influence. One shared element of the different courses that the students involved are aiming to achieve is 'managing', although at different levels. Yet,

typical work tasks that the students share are cleaning up, sales, receiving goods and putting goods in the appropriate place. Although the course descriptions (7.3.2) generally include 'sales', it is not the core of the job at this level. The students should actually learn about the processes at a higher level. In addition, Thomas is not even always allowed to make sales yet and Will is also mostly concerned with other tasks. In combination with a disadvantageous division of work (Will, Thomas, Steve), where students do not have the scope to plan or evaluate their tasks either, there seems to be little room for learning to achieve a higher level. Rachel, on the other hand, is allowed to work at a higher level, although she is also still responsible for cleaning and goods. Victor also works on receiving and putting goods in the appropriate place, but he is also allowed to carry out some tasks with more responsibility. His and Rachel's work content in combination with the division of work therefore has a positive influence. Nearly all the students indicate that they are interested in the higher-level responsibilities and think they should learn about these.

Most students find the social atmosphere at work pleasant and helpful, and the workload is often not too high either. Only in Thomas's case do the 'hard times' have a negative influence, because they hinder him in his opportunity to make sales. On the one hand, the high workload at shop X offers Rachel the opportunity to work more hours and gain more responsibility; on the other hand this is starting to be at the expense of her learning process. In Steve's and Rachel's case size of the training company appears to have at least an indirect effect, through the division of work. Rachel works alongside her WPL mentor in the relatively small shop and is gradually handed over more responsibilities, which implies a positive effect. Steve's relatively large shop is divided in departments and Steve is supposed to stay at his own department, which implies a negative effect.

#### *WPL curriculum and integration measures*

In principle, the WPL curriculum is built up in such a way that theory at school is related to the designated WPL assignment booklet of that stage. This makes students reflect a little on theory and most of them recognise (the role of) theory. Not all students keep up, however.

The students have already worked in their training company since the start of the school year and were therefore mainly just continuing during the period of the study. Although they are mostly beyond the initial explanation-exploration period, most of them do not work entirely independently yet. They are still being shown the work or parts of the work and possibly new tasks by their mentors or others, ask questions and receive feedback. In Will, Thomas and Rachel's case the approach of 'gradualness' in the WPL curriculum is still noticeable and in this sense has a positive influence. The s-b pathway WPL curriculum is built up of stages of one full week, ten weeks with one WPL day and a full week again to have the students participate in a variety of tasks. Nevertheless, both the s-b pathway and w-b pathway students appear mainly to work on the same types of tasks

throughout the period studied. Exceptions are rare. Steve has the opportunity to participate in an inventory once and Rachel sometimes participates in decorating the shop for the twice-a-year special sales period. In addition, learning is hardly supported by regular progress evaluations or other means of organised learning activities during the period of the study. Only the examination meetings are a means of structuring the students' learning: the students basically need to hand in the booklet within a period of ten weeks and then have an examination on it. Generally this seems to work, although students like Will and Zack are often late, need re-examination or complete the assignments in a minimal way. The examination meetings as such do not have a direct influence, incidentally.

WPL mentor guidance is appreciated in most cases, although regarding 'learning to learn' the influence is usually not positive. The mentors hardly monitor the WPL process closely. They should actually indicate when they expect the students to hand in the assignment booklets, and although they report that students are often late, they do not seem to urge the students at any point. While the students could use the plan of approach format in their assignment books, none of the students do so: they just start working and see how far they get. Mostly, the students ask their mentor at the last possible moment in advance of the examination whether the mentor can check the booklet with them.

In principle, the assignment booklets are meant to prepare the student for the examination. The booklets show both the student and the mentor the criteria for assessment. The mentor should grade the student's performance using the booklet. The teacher has the role of checking this grade based on completion of the booklet and the examination meeting. In Will's case, another employee instead of Craig (mentor) grades Will's booklet. Vincent (teacher) does not agree with the grade. In Rachel's case, the WPL mentor is not even present during the examination meetings because the shop would then be left unattended. She does not grade Rachel's booklets either, meaning that Rachel's grade is mainly based on what the WPL teacher thinks about the booklet and the examination. He, however, is not present while Rachel is working in the shop. In Thomas's case, Vincent does not check Thomas's booklet before the observed examination meeting, because he trusts that it will be all right. Mark comments that the examination meetings should be more difficult, although he scores Steve's examination meeting answers simultaneously with Paula and usually comes to a similar grade. In addition, he and Paula are not very critical about Steve's answers. Vincent himself reports in Zack's case that Zack's examination answers were rather superficial, even though Zack was graded '7.5' (for '401'). It is also remarkable that some students' 'shop performance' rates as assigned by the mentor deviate so much from the amount of knowledge the mentors think these students have (Thomas's case and Will's case). It appears to be difficult to achieve reliable assessment. On the other hand, the WPL mentors claim that they often agree to a great extent with the WPL teacher's grade. Not every WPL teacher plays a large role in the student's learning process; Zack and Will, however, are kept on their toes by Vincent.

Although guidance at school by people other than the WPL teachers is sometimes experienced as positive, Victor finds school 'chaotic' and Rachel feels that the curriculum might be based too much on self-regulated learning. In some cases, people other than the WPL mentor are also available to help the students in the workplace. For example in Victor's case the shop owner is also involved in Victor's learning process, and Will also asks other colleagues and fellow students for help. The assistant manager also explains work aspects to Zack. In Steve's case, the department head and the layout manager are even identified as providing more important guidance than his WPL mentor.

The study hours have a positive influence in Thomas and Will's case.

#### Learners' background and prior knowledge, motivation and emotion Retail cases

The students' previous education ranges from pre-vocational secondary education (with a Retail/Accounting preparation) to a hairdressing course, and their ages range from 18 to 20 years. Age or previous education alone does not seem to have particular influences, however. Rachel, for example, is rated one of the highest regarding 'shop performance' even though she has previously finished a hairdressing course. She and Victor, who is also rated high regarding 'shop performance', do have more work experience in their shop than the others do in theirs.

Personality aspects do not strongly influence the learning process in these cases, although it is identified as supportive in some cases. In Thomas's case, his attitude of working systematically and neatly is supportive, and in Rachel's case the fact that Rachel wants to do things right and is open to improvement is identified as positive by Joan. All the students are generally motivated to obtain their diploma, despite a 'side-step' for example in Zack's case, or Rachel and Steve feeling less ambitious to continue at a higher level. This general motivation may have a positive influence on 'learning to learn', while specific motivation for learning to learn should often be higher. Because Will and Zack take a calculated approach to studying, their results for the theoretical tests at school and the WPL examinations disappoint repeatedly. They do realise that they need a diploma however, and are kept on their toes by Vincent, taking re-examinations until they achieve the attainment targets. Specific motivation and prior knowledge are identified as important influences. Four of the six students need more to much more motivation for learning. Regarding 'shop performance', Zack and Thomas report that they also learnt a lot in their previous WPL experience which they now apply. Most students just continue from what they already knew in the WPL period studied: their prior knowledge was sufficient or more than sufficient.

#### Learning processes and outcomes Retail cases

Most students have at least some or sufficient prior knowledge and are at least generally motivated. They are not in a 'spectacular' period of their WPL curriculum. They are either gradually moving on towards their final year (Will, Zack, Thomas) or only finishing up (Victor, Rachel, Steve). The social interaction processes mainly involve

nearly all types. Some students are mostly working independently, although transmission and experience keep playing a role, because students still require explanation and instruction, and need to practise particular tasks under supervision. Since learning related to 'shop performance' mostly takes place gradually from sufficient prior knowledge and with sufficient to high motivation, the internal acquisition processes are basically assimilation, in most cases complemented by some reflection. This is because the students either make the WPL assignments or are starting to realise what the role of theory is. In that sense the 'shop performance' learning processes seem relatively 'balanced'. The students also seem to achieve more than satisfactory outcomes regarding 'shop performance'.

In terms of internal acquisition processes, the same as for 'shop performance' applies to 'learning to learn' for three students. The other three remain 'resistant' to learning. Zack appears to have other things on his mind and Rachel is running the risk of becoming overwhelmed by the combination of an increased work schedule with school. In Rachel, Zack and Will's case the question is to what extent 'transmission' as intended by the WPL teachers actually gets through. Although all three students still do what they are supposed to be doing for the greater part of the period of the study, they are not really *progressing* regarding 'learning to learn'. According to the WPL teachers the assignments are often made minimally or much too minimally. Not all the attainment targets are dealt with in practice *and* theory in the first place, (see Appendix III), and, although 'application of theory to practice and practising with skills and knowledge during WPL' is a general goal, this is not realised to the extent the WPL teachers would like it to be.

In addition, although the 'shop performance' grades are more than satisfactory, the question is to what extent they relate to the students' ability to function at the actual level of their course (see also the part about assessment in the 'WPL curriculum and integration measures' subsection). In three cases, the mentors rate their students' 'shop performance' lower than the students do themselves. Mark and Steve especially are far apart, with a difference of one point. Still, Mark thinks Steve functions well in his own department. Arthur rates Victor one point higher than Victor's self-rating, which might indeed be rather modest. Will is rated '7' by Craig although he thinks Will's knowledge is between 20 and 30 per cent of what should be known to function well in shop U. Zack is rated rather high by Leo - as an 'assistant manager', although Zack's opportunities to carry out managing tasks were not that frequent, and Zack is for example still not allowed to do cash desk control. Rachel and Victor appear to have been rated the most truthfully regarding 'shop performance': they function relatively independently in the shop also in respect of the more responsible tasks, have developed a reasonable to good amount of 'work process knowledge' and are rated accordingly by their mentors. In general, however, the difficulties with assessment and the extent of 'non-learning' raises doubts about the learning outcomes.



We next wish to answer the question about the differences in terms of learning processes and outcomes regarding the w-b pathway and the s-b pathway.

7.11.2 How can we distinguish the work-based pathway from the school-based pathway in terms of WPL learning processes and related outcomes in the Retail cases?

*Learning environment*

The WPL curriculum of the w-b pathway students (Victor, Rachel and Steve) differs from that of the s-b pathway students (Will, Zack and Thomas) in the sense that w-b pathway students alternate WPL with one day of school a week. They have an employee status. The s-b pathway students alternate one WPL day a week with school. S-b pathway students do have a full week of WPL at the start and at the end of a ten-week period. In addition, they have a study hour per WPL day and a tutorial hour at school. They also have some hours at school to work on WPL, while the w-b pathway students only have theory lessons or should work independently on theoretical attainment targets at school. The students from both pathways use assignment booklets for WPL. While Vincent reports that he is keeping Zack and Will on their toes regarding learning, the w-b pathway students' WPL teachers appear to play a small role in their students' WPL.

Rachel does not have the opportunity to carry out all the assignments because the workload does not allow this. Victor finds school chaotic and feels that Nick (WPL teacher) has little time for him. Steve, on the other hand, appreciates guidance by teachers at school, although Paula has played a small role in his WPL. All w-b pathway students would like more guidance in some sense. Rachel would have liked more traditional lessons, Victor would like more attention at school, and Steve would like more guidance from his WPL mentor. Although the w-b pathway students do not have study hours, at least Victor and Steve manage to keep up regarding learning. Rachel, however, needs some more time and opportunity to spend on her learning process.

*Learners*

The differences between the s-b pathway students and the w-b pathway students as people are not very clear-cut. Rachel (w-b pathway), for example, quite likes school, as does Thomas (s-b pathway). Will (s-b) takes a calculated approach to studying and is not very active at school, but he prefers school to working. Zack, an s-b pathway student, is rather bored with school and shows an 'easy-going' approach there. Zack is, however, looking for a w-b pathway position at the end of the period studied. Steve (w-b) appreciates the support at school, although he could not imagine himself there for a larger part of the week and he also wants to earn a living.

Victor (w-b) has a lot of work experience apart from him being a w-b pathway student because of his previous spare-time job. However, so does Thomas, although not in the same shop as his training company (s-b).

### *Learning processes and outcomes*

Although all the students score between satisfactory and good regarding 'shop performance', the w-b pathway students score slightly higher with their 'shop performance' grade and regarding work process knowledge. The w-b pathway students are slightly more involved in the 'participation' social interaction process. Internal acquisition processes do not really differ between the groups of students. For 'learning to learn', there are two 'non-learning' s-b pathway students and one 'non-learning' w-b pathway student. The other students from both pathways have not grown spectacularly regarding 'learning to learn' either.

Consequently, no clear differences between the s-b pathway students and the w-b pathway students' WPL could be identified regarding learning processes and outcomes. There is also not much difference between the WPL curricula of either group in terms of the availability of integration measures and the students do not generally differ as people. Although we found a slight difference in the 'shop performance' score, the number of students per pathway is too small to draw any firm conclusions in this respect.

Table 7.28: *Differences between w-b pathway students and s-b pathway students in the Retail study*

Elements	W-b pathway (Victor, Rachel, Steve)	S-b pathway (Will, Zack, Thomas)
WPL curriculum and integration measures	WPL alternated with one day of school a week	Full week of WPL, 10 weeks of school alternated with one WPL day a week, full week of WPL
	Employee status	Student status
	Little contact with WPL teacher Theory lessons or self-regulated learning regarding theoretical attainment targets at school Would all appreciate more guidance	More contact with WPL teacher because of 'tutorial hours' WPL day includes one study hour. Also some hours to work on WPL attainment targets at school
Learners	No general differences	
Social interaction, internal acquisition and outcome levels	Slightly higher score regarding 'shop performance', including 'work process knowledge'; slightly more 'participation' as social interaction process.	No general differences regarding internal acquisition with w-b pathway students

## Chapter 8

### Conclusions and recommendations

#### 8.1 Introduction

Although workplace learning in general is considered increasingly important and WPL plays a crucial role in Dutch SVE, its learning potential is not self-evident. One of the paradoxes discussed in Chapter 1 concerns the idea that the transfer problem is expected to be solved or reduced by workplace learning. We argued why workplace learning as such does not automatically solve or reduce the transfer problem. Another issue discussed in Chapter 1 is the assumed equivalence of the school-based pathway and the work-based pathway in SVE. We argued why we question this equivalence. Consequently, we aimed to contribute understanding from a learning process perspective, by describing how learning in WPL takes place and examining how this differs between the school-based and work-based pathway.

We explained in Chapter 2 why we wanted to make use of Illeris' learning theory (2002) as a starting point for the description of WPL processes. The cognitive, emotional and social dimensions of learning are included in this theory, while other major learning theories generally focus on only one or two of these dimensions at most. The 'social interaction process' (social dimension) and the 'internal acquisition process' (emotional and cognitive dimension) integratively constitute learning. To provide a more concrete understanding of how these learning processes can be deduced from situations in practice, we further elaborated the learning theory. Taking into account the broader context of learner characteristics and learning environment, this resulted in the first version of a research model. In Chapter 3 the design of the study was presented. To answer the research question, a qualitative, descriptive approach to reconstructing learning processes by means of the case study methodology was argued to be the most appropriate. A multiple case study-design was used to be able to study WPL as a phenomenon rather than merely individual cases. We aimed for 2 sectors and 3 students from each pathway, resulting in 12 students (cases) in total. Care and Retail were selected as the sectors. Planned data collection, important quality considerations and, in relation to these, the triangulation approach were extensively described in Chapter 3, followed by an explanation of the types and application of instruments for data collection.

In practice, however, some of the considerations described in Chapter 3 could not be followed up entirely in the Care case studies. We therefore described design

specifications and analysis in this first set of case studies in Chapter 4. In addition, the first version of the research model served as a starting point and could be adjusted, based on the data. The additions and modifications of the research model elements were also described in Chapter 4. In Chapter 5 part of the Care case studies results were presented. Firstly, we presented the modified research model, followed by a description of the Care curriculum in relation to WPL. Secondly, an extensive case description was given, to illustrate how the case summaries and conclusions have been based on the full descriptions. In Chapter 6 the remainder of the Care cases were summarised and the case conclusions and cross-case conclusions were discussed. In Chapter 7 design specifications and analysis and the results of the Retail cases were presented.

In this chapter we first aim to reflect on the research approach (8.2) and the theoretical framework (8.3). Then we draw conclusions about the research questions (8.4) and offer recommendations in relation to WPL and further research (8.5).

## 8.2 *Reflection on the research approach*

### 8.2.1 Realisation of quality considerations

The conclusions regarding types of learning processes and learning outcomes are based on the accounts of learners, WPL mentors and WPL teachers and on observations, and cannot be verified or 'proven' in another way. Although Tables 2.2 and 2.3 offered a more concrete elaboration for determining the types of processes, they are not always clearly evident. In that sense, it is difficult to state unequivocally which processes really occurred. In this section we describe to what extent the quality considerations as described in Chapter 3 were met, to show how we have attempted to provide as much insight as possible into the specific cases and WPL in general.

To meet the criterion of *valid argumentation*, we have attempted to report as extensively as possible how the data have led to the results and conclusions. Firstly, extensive case descriptions are available, including symbols for the sources and methods on which the assertions are based. In Chapter 3 and 4 learning process reconstruction and analysis is explained more specifically. In Chapter 5 we explain the structure of the case descriptions and the way in which they lead to the conclusions. Preciseness of language is also a subcriterion of *intersubjective agreement*, to which we have also contributed by a systematised approach to data collection, 'thick description', application of triangulation and involving external researchers for the CSS activity and check-coding (Chapter 4). While triangulation is applied with the intention to show that different sources and methods display converging conclusions, this was not always the case. For example, the mentors and students' account of how many progress evaluations had actually taken place did not always agree. We therefore had to use an 'average' or report the inconsistency (for example Anne's case). In general, however, different sources and methods pointed in the same direction and complemented each other.

By applying thick description, we contributed to the criterion of *maximally informative knowledge*. We also summarised initial data collection contact results before the next contacts and used those summaries to have them checked by the WPL mentors or to ask further questions. In addition, the students and WPL teachers were asked further questions during the period studied if required, by email or telephone.

### 8.2.2 Reflection on data collection

In Chapter 4 and Chapter 7 we explained how data collection contact differed from the initial plan. While having slightly adjusted data collection, systematisation and triangulation were still realised. Some students or mentors did not entirely keep to the appointments, however. Some data collection appointments were forgotten or not met. These were caught up with as much as possible. Where relevant we have noted deviations of planned data collection within the cases.

Even though we aimed to study the ‘natural’ WPL process as far as we could using a non-intervention approach, this did not always work out. Although in most cases observation and interviewing took place without problems, the research did exert some influence on the behaviour of the respondents. Some students, for example, were a little nervous during the working day observation, and some mentors preferred to give answers about what ‘should be’ in their guidance and WPL approach rather than what ‘was’. One student for example had more work task variation during the working day observation period because of the researcher’s presence. However, because of data (sources and time) and method triangulation, it is unlikely that these incidents have significantly influenced the results of the study. Even when a particular student was a little nervous during an observation, information about work tasks and the student’s performance was also gathered by asking the WPL mentor, WPL teacher and the student himself, over different periods of time within the ten weeks studied. Even when a particular student worked on other tasks than normal during the observation day, regular activities were also asked about in the questionnaires or the interviews. It is therefore doubtful that entirely different types of learning processes and related outcomes would have occurred without the researcher’s presence. In general, the clear explanation of the research procedures and prolonged contact were effective.

### 8.2.3 Generalisability

As a result of the emphasis on extensive research into WPL in the context of a small number of cases, the results of this study can only be generalised analytically. In this respect we use the concept of ‘transferability’: the detailed illustrations in the cases allow others to assess to what extent the results apply to other cases (Krathwohl, 1998). Many of the influences identified apply to both Retail and Care. In addition, there are similar results regarding the learning processes and outcomes. Where results differed, we have provided possible explanations. The approach shows indeed that at least some transferability to ‘other sites’ is possible.

### 8.3 Reflection on the theoretical framework

Although it is difficult to ‘prove’ that learning processes occurred as we described in terms of social interaction and especially internal acquisition, we have found Illeris’ (2002) theory very useful as a starting point for description. Firstly, including the cognitive, emotional and social dimensions of learning and using the underlying elements helped to show how complex the interaction between these elements really is. Although other studies show that there are many more variables in each dimension that are expected or have been demonstrated to influence workplace learning (for example Blokhuis, 2006; Doornbos, 2006; Nijman, 2004; Van Woerkom, 2003), it is the interaction of all three dimensions as such that is of main concern.

This framework has also pointed out the significance of the concept of ‘non-learning’. In some cases prior knowledge appears to be present, the student claims to be motivated and to be aiming for a diploma, the mentors think that everything will turn out right, yet *no* learning progress is made. Without the non-learning analysis framework, it would have been less apparent that some students have serious problems regarding ‘learning to learn’. Their learning outcomes would merely have been identified as minimal in relation to the other students’ outcomes. However, the non-learning framework makes it clear that in the cases of ‘resistance’ or ‘defence’, serious negative consequences could follow and that the learners concerned need more help from teachers or mentors.

Illeris and Associates (2004) also pointed out other elements in terms of the learner background and learning environment to be taken into account, which were reflected in the findings. Not all elements turned out to be equally relevant, however, and some other elements such as ‘personality’ were identified in addition. Influencing elements are further discussed in section 8.4.

### 8.4 Research question conclusions

#### 8.4.1 WPL learning processes and related learning outcomes

##### Learning processes and their influences in WPL

We have presented the recurring influences from the learning environment and the learner in the Care cases and in the Retail cases in Chapter 6 and 7 respectively. Figure 8.1 shows which these influences were in the Care cases (C), the Retail cases (R), or in both in relation to the research model (Figure 2.3). In the next two subsections we discuss the recurring influences and their effect on the learning process. Subsequently, we go into the types of learning processes and the outcome levels that were realised.

##### The learning environment in WPL

###### *Training company*

All training company variables that were identified in advance are of influence both in the Care and in the Retail cases. They also mostly worked as expected, for example a

high workload generally has a negative influence and a pleasant social atmosphere generally has a positive influence. The results thus also show that these variables do not always have a positive form. Work content in the Retail cases leaves something to be desired; workload in terms of time pressure and/or physical workload is often high and consequently a negative influence in the Care cases. During coding of the Care cases 'size' was added as a category, although it was not demonstrated to have an effect during analysis. In some of the Retail cases it appeared to have an indirect effect because the division of work in a larger shop (for example Steve's) is different from the division of work in a smaller shop (for example Rachel's).

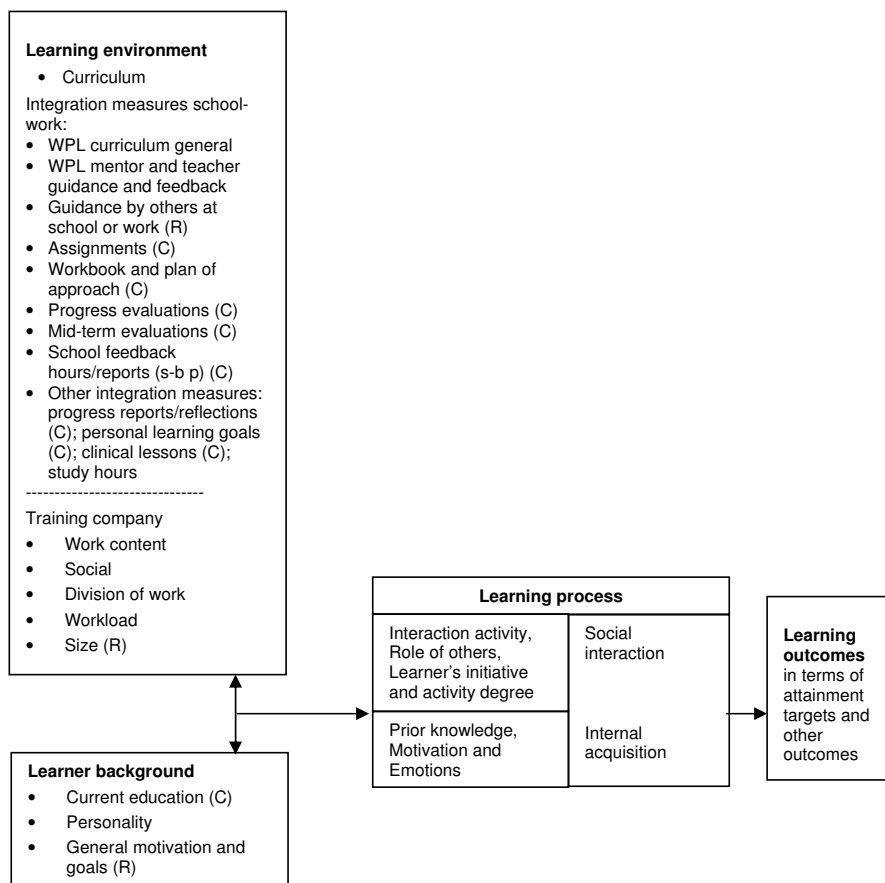


Figure 8.1: Influences on the learning process in relation to the research model

*WPL curriculum and integration measures*

## WPL curriculum general

Both in the Care and in the Retail cases, the general WPL curriculum was identified as a positive influence. In Care, the students' initial WPL curriculum includes introductory meetings, accompanying graduated carers and gradually working more independently, sometimes even very gradually, because not all the students even start with care directly. Although the Retail students are beyond their initial phase, there is still some gradually increasing independence noticeable. In addition, theory at school is related to the designated WPL assignment booklet of that stage. Still, the Retail WPL curriculum appears to provide few opportunities for learning new tasks in the period studied.

## WPL mentor and teacher guidance and feedback

There is much left to be desired regarding the specific integration measures in both sectors. First of all, guidance by the WPL mentors and WPL teachers is often inconsistent or not intensive enough. Students frequently report that they appreciate their WPL mentor's guidance, because they 'can always ask questions', for example. However, answering questions seems to be the least a mentor can do. Guidance should also include monitoring the students' learning process in the sense of explaining assignments and helping with planning them, checking the students' performance in relation to the attainment targets, providing instructive feedback and the like.

Although intentions are ambitious in the Care cases, actual guidance is often not in agreement with these intentions. In the Retail cases there are fewer integration measures, which often reduces actual guidance to answering questions as they arise and going through the assignment booklet at the latest possible moment before the student needs to hand it in. Although in this sense the mentors may spend the required time on guidance, the way in which this time is spent is not the most productive. In the Care cases, Bonnie and Tonya's case appear to support the thought that the combination of working in the department with a focus on WPL might be best for the WPL mentor job. Layla (Tonya's case) is connected to Tonya's department and works in her hallway; she is, however, only assigned as a WPL mentor and not as a carer at the same time, for example. Although Bonnie's mentor at home A, Zoë, works as a carer, this is only part-time and she also works in Bonnie's department. In the Retail cases, nearly all the WPL mentors are the training company's branch managers. This provides them with the authority to spend time on the students' learning as much as or when they see fit. They also have the ability to facilitate learning in the sense of providing the required documents or other information for the assignments. On the other hand they also need to manage the branch at the same time, which may put too much time pressure on them. More specifically, assessment is identified as problematic. Responsibility for assessment varies per training company in both sectors. In Retail, the WPL grade is not similarly based on performance in the shop, the assignment booklet, or the examination



meeting in all cases. In Care, different guidelines for completing the assignments, on which assessment is based, apply at each home.

WPL teachers generally play a very small role in the students' learning processes. In Care there are more formal opportunities for contact than in Retail, yet the WPL teachers do not 'guide the student in close cooperation with the WPL mentor'. For example when the Care WPL teachers visited the training company for the mid-term evaluation, they seemed to take a 'hands-off', rather than a hands-on approach, being informed about the student's progress so far, but not taking much initiative to influence the process. The argument for delegating responsibility for assessment to the mentors might be that assessment can only take place in context and the mentors are the ones with the opportunity to see the students perform in context. Perhaps another reason is that the ROC is dependent on the training company for placing students. Both parties would, however, benefit if assessment was taken more seriously and carried out more reliably. Remarkably, members of both parties have indeed commented on assessment in this respect. Some WPL teachers and some mentors have both commented that assignments were elaborated in a minimal way, and that the students did not provide satisfactory answers in the examinations. However, those same students received satisfactory to good grades.

While the students' own responsibility is emphasised in both Care and Retail, they have difficulties with exercising this responsibility not only when they do not know how to make assignments. In the Retail cases, Rachel reports for example that her WPL mentor does not want to spend much time on the booklets, and she is not allowed to carry out all the assignments included either. And while the progress reports or reflections as used in the Care cases are perceived as useful by the students, it is not easy to ask colleagues who suffer from time pressure to fill these in.

#### Guidance by others

In Retail, others at work or at school were also identified as influencing the learning process (positively). Care students did not really have lessons during the period studied, so they had little opportunity to receive guidance from others at school. They were also helped by people other than the WPL mentor at work, which is also a characteristic of the social atmosphere. However, in Retail some specific people other than the mentor were identified as important, such as the layout manager in Steve's case.

#### Other integration measures

In both sectors assignments are used, but only in Care were they identified as of specific influence in a negative sense, because they were perceived as difficult. The 'other' influencing integration measures as identified in Care are only used in Care. In Retail, the examination meetings were not identified as an influence. S-b pathway students

have an hour per WPL day to work on their learning by means of the study hours, which usually has a positive influence.

Learners' background and prior knowledge, motivation and emotion

We have not identified any gender, age or previous education influences. Especially the latter is remarkable, because it apparently does not make much difference whether a student has previously obtained a secretarial diploma (Tonya) or a beautician's diploma (Mary) to progress well in Care. Similarly, it does not make much difference whether someone has followed the hairdressing course, to progress satisfactorily in Retail. The students with preparatory courses (Bonnie, Claire and Dennis in Care and Thomas in Retail) do not necessarily achieve better results than the students with more general or different preparatory education. In Care, five of the six students were female; in Retail, five of the six students were male. Per sector, therefore, we could not draw conclusions about gender. All in all, no clear gender influences were identified either. Only personality was identified as an 'other' learner's influence in both sectors. The strength of its influence depends on the student. Rachel, for example, wants to do things right and is open to improving her performance, which is supportive. Claire and Bonnie are both shy and insecure which influences their learning in a strong negative way.

General motivation and goals only appeared as a recurring 'other' influence in the Retail cases, although this category emerged during the Care case analysis (Chapter 4). In Care, students were generally either motivated for the specific work activities and for 'learning to learn' or they were not motivated for 'learning to learn'. In Retail, however, students could be motivated for the work, not motivated for 'learning to learn', but eventually still be driven to complete the assignments and work more actively on their learning process by their general wish to obtain a diploma. Current education in the sense of the pathway is discussed in 8.4.2.

Specific prior knowledge and motivation were identified as the most recurring influences in both Care and Retail. While prior knowledge and motivation for the work are generally sufficient in both sectors, they leave much to be desired regarding 'learning to learn'. In neither sector is the motivation for 'learning to learn' high enough. Especially in the Care cases, the students do not seem to know how to deal with their learning process. They should self-regulate their learning during WPL, while at school the lessons have been traditional. In Retail, the curriculum is more 'self-regulated' from the outset and although the Retail students sometimes complain a little that it all comes down to them, they seem to handle it fairly well. In that sense 'curriculum' (Figure 8.1) does have an influence on WPL, even though it was not identified in the separate sectors as such.

### Learning processes and outcomes in WPL

Nearly all the social interaction processes are involved throughout WPL in virtually all cases. Students do not only practise or work independently; they also observe, ask questions and receive answers and instruction, practise under supervision, imitate others, read learning material and resources at work, etc. Perhaps the proportion of particular social interaction processes is not always adjusted well enough. For example, 'transmission' is not always sufficient or effective. Some students appear to be expected to become involved in 'participation' too soon.

We cannot conclude that in WPL some types of internal acquisition processes occur more than others, or that particular outcomes are generally realised in a particular way, because these processes depend on the specific combination of the cognitive, emotional and social influences in each case. This is especially illustrated in the Care cases, while in the Retail cases the influences are more alike and therefore at first sight 'assimilation and reflection' seems to be the general way of learning.

In both sectors the students apparently achieve more than satisfactory outcomes regarding the job-specific learning outcomes and 'knowledge of the organisation and work process'. Firstly, we raise doubts about these outcomes by questioning assessment. Secondly, the internal acquisition processes are not generally 'balanced' in terms of an interaction between assimilation and accommodation (Chapter 2). In most Retail cases reflection takes place in addition to assimilation. However in the Care cases Mary, Claire and Dennis only learn by assimilation and also much 'non-learning' can be identified in all cases. On the one hand, accommodation and reflection may only be required in the case of prior knowledge problems or to deal with non-learning; on the other, transfer possibilities are generally better in the case of 'higher' internal acquisition processes such as accommodation or reflection, according to the theoretical framework. Consequently, we question the transfer possibilities of the learning outcomes in the cases where merely assimilation and only a little reflection was realised.

Regarding 'learning to learn' especially, there is a lot of 'non-learning' in both sectors, which reinforces the reservations about the job-specific learning outcomes and 'knowledge of the organisation and work process'. Half of the students in total show 'resistance' or 'defence' in their 'learning to learn' process. Even when students have completed assignments, they have often done so in a minimal way and they hardly progress regarding 'learning to learn'. Consequently, altogether we can seriously doubt the extent to which the learning outcomes studied were realised, as illustrated by the comments of some of the WPL teachers or mentors. The fact that students developed 'knowledge of the organisation and work process' as such, can be viewed as an asset.

In the next subsection we discuss the conclusion about differences in terms of learning processes and outcomes regarding the s-b pathway and the w-b pathway.

#### 8.4.2 The work-based pathway and the school-based pathway

Only in the Care cases the differences between the s-b and w-b pathway students as people are clear. Regarding learning processes both in Care and Retail, we can see in Table 6.32 and Table 7.28 that w-b pathway students are slightly more involved in 'participation' than s-b pathway students. This does not appear to make a difference regarding learning outcomes, however, because both groups of students reach the same outcome levels, although in the Retail cases w-b pathway students score slightly higher regarding 'shop performance'. Regarding 'learning to learn', there is only one more 'non-learner' in the w-b pathway group than in the s-b pathway group.

In other words, while any differences that could be identified between the s-b pathway and the w-b pathway within the sectors were already small, they seem to disappear altogether when we look at both groups. Nonetheless, the groups are both small, even when put together and therefore we cannot draw firm conclusions in this respect.

#### 8.4.3 Discussion of the findings

In Chapter 1 we explained that there were several reasons for aiming to contribute understanding about WPL from a learning process perspective. In this section we comment on the reasons for the crucial role of WPL in SVE and on the paradoxes we identified in Chapter 1.

##### WPL and lifelong learning

We conclude that WPL is a long way from providing a foundation for lifelong learning in the cases studied. The way in which students deal with 'learning to learn' is generally disappointing. Although in the Retail cases most students at least make assignments, most of them do not satisfactorily apply theory to practice or plan their learning either. In addition, assessment is problematic, raising doubts about the learning outcomes other than 'learning to learn' too. It is possible that the first-year Care students and second-year Retail students have not had sufficient time to adjust to their working life and combine it with learning at the same time. In this respect Jensen and Lahn (2005), in their longitudinal study about nursing students, show that a 'shift in perspective' regarding use and application of theory occurs in the final course year. Perhaps this is also illustrated in Victor and Steve's case - who are both at the end of their course - by Steve's use of theory and reflection on his course and Victor's enthusiasm regarding having to make a business plan. The s-b pathway Retail students will start on a project called 'youth enterprise' next year, in which theory and practice may come together for them.

In the first instance, we consider the development of 'knowledge of the organisation and work process' as an asset, because it is 'extra' to the intended attainment targets. However, if we compare it to the concept of 'work process knowledge' (Boreham, 2004), a synthesis of theoretical and practical understanding is required and this should be improved in most of the cases studied. In both sectors, the significance of 'learning to learn' and 'work process knowledge' is evident. All the nursing homes involved will change their accommodation and care approach in the near future. Care is becoming more complex. The personal needs and wishes of residents should become more central. In this relation, organisation and budgeting will be subject to change. This development illustrates the need for continuously learning employees. This is also illustrated in a report about the quality of Care in the Dutch Nursing home sector (Kennedie, 2005). For example a clear vision and mission and employees' knowing and ownership of what the home stands for positively influence the quality of care. In addition, the carers' communication skills should be improved and competencies related to client-centeredness and service should be developed according to this report. In Retail the 'hard times'<sup>1</sup> indicate that it is important to develop understanding in terms of work process knowledge to realise more efficient and effective performance. Even when the economy is improving<sup>2</sup>, there is still a general trend towards the need for workers to be willing to learn and capable of learning and performing new tasks and roles (Chapter 1). However, so far, the question is whether assuring a foundation for lifelong learning is not too ambitious as a goal for SVE.

#### WPL and transfer

We also argued in Chapter 1 that it is unlikely that the transfer problem is automatically solved by employing workplace learning. To realise transfer, further learning is required. Perkins and Salomon (1989) refer to the 'high road to transfer', in which students are urged to understand the reasoning underlying principles and to apply them to different situations. In connection to the previous argument, we can conclude that this 'high road' is generally not taken. This is also illustrated by the fact that the internal acquisition processes are often limited mainly to assimilation - if at all positive.

#### Theory and practice and control over WPL

The concept of 'integration measures' was used to describe the extent of the integration of theory and practice. The results show that the integration measures and their use require major improvement. Inconsistent or too little WPL mentor guidance, the difficulty of assignments, inconsistent assessment and a small role for WPL teachers are findings that show how the lack of integration of theory and practice and a lack of control over WPL, as reported by the Stuurgroep Evaluatie WEB (2001), is maintained.

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<sup>1</sup> The disadvantageous economic situation.

<sup>2</sup> <http://www.raadnederlandsedetailhandel.nl/index.cfm/18.8167.108.117.html> Retrieved November 15<sup>th</sup>, 2006.

#### Pathway differences

We could not find convincing confirmation of a difference between the s-b pathway and the w-b pathway in terms of learning processes and outcomes in WPL. Variance among students appears to be higher than between the groups of s-b pathway and w-b pathway students in these cases. Perhaps a difference could be detected if a higher number of students was studied. To keep the groups of students comparable on other aspects, for example, we already selected students of similar ages. However, on a larger scale ages may differ more. We also asked the WPL mentors their opinion regarding the differences. One WPL mentor maintained that he would always prefer to hire a w-b pathway student, even if this student had been trained in another company. Others also thought that w-b pathway students develop more to much more insight. A slight majority, however, thought that it differs per student and that the pathways do not deliver essentially different students in general, confirming the results of this study. In other words, the difference in pathways should not be viewed as an issue.

#### 8.4.4 Learning potential of WPL

Consequently, what can we conclude about the learning potential of WPL? The findings largely connect to the assumption described in Chapter 1 that workplaces do not necessarily provide the best conditions for learning. Limitations as identified by Billett (2001) about limited access to guidance and time or opportunity to engage in particular tasks were also identified in this study. The findings of this study do not only relate to recent studies or the WEB evaluation in 2001. Already in previous systems of SVE, the then forms of WPL were problematic in terms of the integration of theory and practice (see for example De Vries & Meijer, 1983) and did not always prove to offer beneficial learning environments (Nieuwenhuis, 1991). The development of job-specific knowledge was not self-evident and the development of job-specific skills varied greatly among the courses studied. Onstenk concluded in 1997 that students should be prepared for a lifelong learning trajectory. He points out that this can only be realised if certain quality criteria such as good guidance are guaranteed in the workplace. Although he also refers to studies that show disappointing results regarding the workplace learning component in courses, he believes that the opportunity to use the workplace learning component as a powerful learning environment should not be abandoned (Onstenk, 1997). This optimistic and confident view in the workplace learning component is also reflected in recent writings ranging from newspaper articles (for example Snippe, 2006) to parliamentary documents<sup>3</sup>. In a letter<sup>4</sup> to the Lower Chamber about dualised academic education, the recommendation is to continue and expand dualised academic education despite the Education Inspectorate's findings that *"learning at university and at work are not integrated in a coherent curriculum"* (p. 3). And, amazingly, *"the quality of the workplace as a learning site is not sufficiently*

<sup>3</sup> [http://www.leren-werken.nl/html/documenten/Leren\\_dat\\_werkt\\_d.pdf](http://www.leren-werken.nl/html/documenten/Leren_dat_werkt_d.pdf) Retrieved November 14<sup>th</sup>, 2006.

<sup>4</sup> [www.minocw.nl/documenten/brief2k-2001-40652.pdf](http://www.minocw.nl/documenten/brief2k-2001-40652.pdf) Retrieved November 14<sup>th</sup>, 2006.

*guaranteed. Quality criteria for the workplace, learning at work and guidance are usually lacking*”(p. 3). Although it is acknowledged that dualised academic education requires further development, the advice is positive. Apparently, the workplace learning component exerts an irresistible attraction on many, even when contradicted by empirical evidence. We can no longer deny, however, that WPL requires at least serious improvements, to deserve its appeal and an increasingly important<sup>5</sup> role in SVE. This concern is incidentally also reflected in recent writings (for example Nieuwenhuis, 2006; Nijhof, 2006; Onstenk, 2003a).

We did not set out to critically examine the extent to which WPL is effective, however. Instead, we wanted to examine *how* learning takes place in WPL. By doing so, possible starting points for improvement have emerged. These are considered in the next section.

## 8.5 Recommendations for WPL and further research

### 8.5.1 Improving learning in WPL

The results confirm the premise of the learning theory used that learning depends on the cognitive, emotional and social dimension. For example, some students who have or are presumed to have sufficient prior knowledge and motivation may still not progress as expected because of obstructions in the other dimensions. The generalisability (or ‘transferability’) in the study does not mainly concern which particular integration measures or learner characteristics are influential in most cases, it concerns rather the significance of the ‘triangle’ (Illeris, 2002). For improving learning in WPL therefore, all three dimensions should be taken into account.

Furthermore, it is very important that the responsibility for WPL is taken by all the parties involved (cf. Illeris, 2004, p. 228). We have asked respondents whom they considered mainly responsible for WPL, and the answers usually concerned one or two parties at most. One WPL teacher, for example, was of the opinion that it is the school in the situation of an s-b pathway student, and the training company in the situation of a w-b pathway student. Another teacher viewed the school as mainly responsible. Some students thought they were mainly responsible, some mentors thought *they* were mainly responsible, while other students and mentors thought the school was mainly responsible. Hardly anyone argued that all parties were equally responsible; only one WPL mentor pointed out the role of the school, the mentor *and* the student. In other words, in relation to the responsibility for WPL, at a higher level a ‘triangle’ in terms of the student, the training company and the school should be in operation. Students themselves need to feel responsible for their learning process, which they incidentally

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<sup>5</sup> Which is also strongly related to the advance of competence-based education in this system ([http://www.kchandel.nl/templates/dispatcher.asp?page\\_id=1744](http://www.kchandel.nl/templates/dispatcher.asp?page_id=1744) Retrieved November 15<sup>th</sup>, 2006; Biemans et al., 2004).

did not always act upon in the cases studied, even if they reported feeling it. Onstenk (1997) also points out that the learning potential of the workplace includes the extent to which students are able to and willing to learn. This assertion is confirmed in the findings of this study. In turn, the ROCs and the WPL teachers and the training companies and the WPL mentors need to provide the right framework of conditions and working and learning opportunities (cf. Ritzen, 2004). All parties need to take WPL more seriously and take on the challenge of working on a coherent and fruitful workplace learning component. In other words, a systemic approach needs to be applied to improve WPL.

### 8.5.2 Further research

To use Illeris' theory as a starting point for data collection, it was necessary to elaborate it into more concrete categories to be able to infer from situations in practice which types of learning processes occurred. We wanted to influence WPL as little as possible, which is why we chose to make use of techniques that would not be too intrusive for the respondents. To obtain a more complete and more detailed picture and perhaps offer a better possibility for inferring the types of learning processes, prior knowledge and personality tests could be used. In addition, social interaction and learning progress could be monitored more thoroughly using learning logs (cf. for example Fuller & Unwin, 2002; Noß, 2000). The effect of using these more intensive techniques on respondents' behaviour should, however, be carefully considered. Jensen and Lahn's (2005) findings show that longitudinal studies might produce interesting results as well. On the other hand, the next more relevant step might be to use the 'triangle' to *design* WPL and test the effects, rather than to describe it further. Several studies have shown that designing workplace learning in the context of SVE is by no means a straightforward endeavour (Blokhuys, 2006; Boreham, 2004; Ritzen, 2004), and more research in this direction would therefore be essential.



## Summary

### 1. Workplace learning processes in senior Secondary Vocational Education

In Chapter 1 the subject of workplace learning is introduced. Before the more recently increased interest in workplace learning is examined, its role both in labour organisations and in senior Secondary Vocational Education (SVE) is discussed. In Dutch SVE, the institutionalised workplace learning component (WPL) plays a large role. This is the case in either pathway that leads to the required competencies and diplomas. In the school-based (s-b) pathway students participate in WPL for twenty to sixty per cent of the duration of the vocational course and attend school for the remaining part. In the work-based (w-b) pathway students' WPL implies being employed in a training company for more than sixty per cent of the time. School is attended for the remaining part. In the training companies in which WPL takes place WPL mentors monitor the learning process. WPL teachers guide the students on the part of the Regional Training Centres (ROCs).

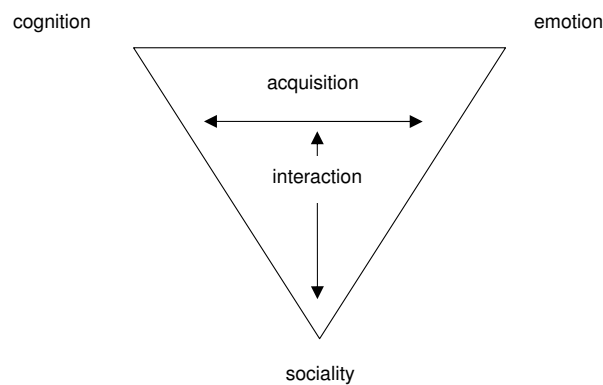
Workplace learning is subject to great expectations. It is, for example, expected to solve or reduce the transfer problem. In addition, arguments related to the apparently rapid changes in economic, technical and social conditions and the related lifelong learning trend, the argument for skill development and learning about career options are brought to the fore. A more critical examination of these arguments, however, raises doubts about their validity. In particular, the 'WEB' (Adult and Vocational education Act, 1996) evaluation (in between 1999 and 2001) showed that ROCs fail to adequately direct WPL. Consequently, WPL in SVE is subject to problems in any case. In addition, the differences in the proportions in WPL and the status of the students between the s-b and w-b pathway raise the question whether these pathways are indeed equivalent, as laid down in the WEB. Because of a lack of understanding from a learning process perspective, we aimed to describe how learning takes place in WPL. The first research question therefore is: How can we describe WPL learning processes and related learning outcomes? The second question is: How can we distinguish the work-based pathway from the school-based pathway in terms of WPL learning processes and related outcomes?

### 2. Workplace learning as a process

In Chapter 2 workplace learning is approached as a process. Learning is viewed as a change in behaviour or change in the capacity for behaviour, which must be relatively lasting, and should result from practice or experience. Workplace learning is unique in relation to the context rather than in relation to the mechanism of learning. The major learning theories generally lack a synthesis between the social and cognitive dimensions of learning. Learning is often viewed either as the acquisition and accumulation of knowledge ('acquisition metaphor') or as an ongoing activity that is tied to the context in which it takes place and implies increasing participation in communities of practice ('participation metaphor'). Because the acquisition metaphor and the participation

metaphor should be combined, we have made use of Illeris' (2002) learning theory as a starting point for describing learning processes. In this theory, both the social interaction process (social dimension) and the internal acquisition process (emotional and cognitive dimension) integratively constitute learning as visualised in Figure 1.

Figure 1: Three dimensions of learning (adopted from Illeris, 2002; 2003)



The social interaction process involves the interaction between the learning environment and the learner. Social interaction refers to the type of activity the learner is involved in to learn, the role of others, and the degree to which the learner is active and takes the initiative. Perception, transmission, experience, imitation, activity and participation are social interaction process categories. These categories partially overlap and a 'higher' category implies a more active role and more independence for the learner. The social interaction results in impulses that are internally processed and acquired or developed further. Learners process these impulses through an accumulative, assimilative, accommodative or transformative process. The type of process depends on the prior cognitive structures (prior knowledge) of the learner and the required psychological energy (motivation and emotion). In each subsequent process, generally more impact on cognitive structures is effected and more psychological energy is required.

Learning does not always take place as a positive development, however. In this respect, several categories of so-called 'non-learning' can be identified (Illeris, 2002; 2004). These are mislearning, resistance and defence, in order of seriousness. To provide a more concrete understanding of how the types of social interaction and internal acquisition processes can be inferred from situations in practice, we have elaborated on Illeris' explanation further.

Because the social interaction takes place between the learner and his learning environment, influences in terms of learner characteristics and the learning environment also need to be taken into account. These were derived from literature related to Illeris' initial theory (Illeris & Associates, 2004). In addition, we included the so-called integration measures used by the ROC and the training company to direct WPL. Figure 2 displays the research model that was used as a starting point for describing WPL. Attainment targets that are intended to be achieved during WPL result from the social

interaction between the learning environment and the learner and the subsequent internal acquisition. The possibility that other characteristics of the learning environment or the learner would be identified in the data and that learning outcomes other than the intended attainment targets would be achieved was taken into account in the model.

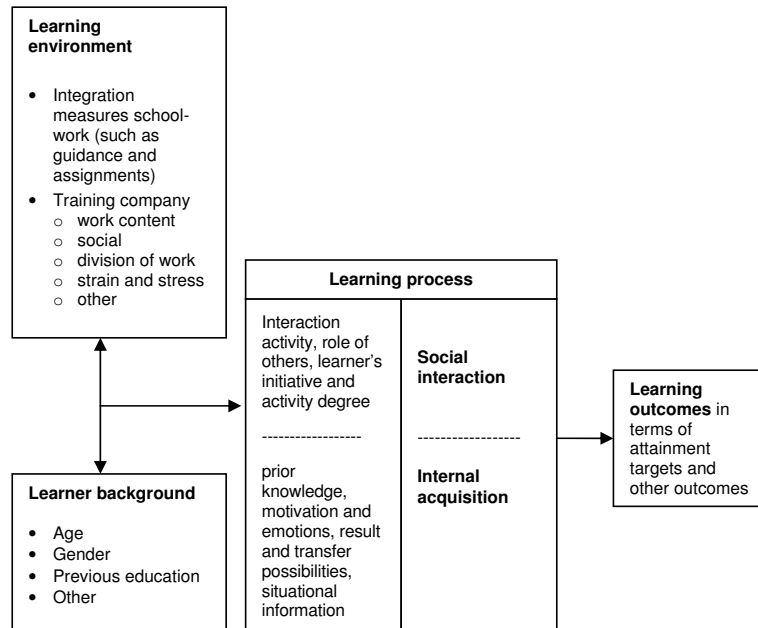


Figure 2: Research model for describing WPL

### 3. Case study design

The design of the study is presented in Chapter 3. We wanted to examine how learning processes occurred in the real work context. A qualitative, descriptive approach was argued to be the most appropriate. A multiple case study-design was used to be able to study WPL as a phenomenon, rather than merely individual cases. We aimed for two sectors and three students from each pathway, resulting in 12 cases in total. Care and Retail were selected as the sectors. Planned data collection, important quality considerations and, in relation to these, the realisation of triangulation are extensively described in Chapter 3, followed by an explanation of the types and application of instruments for data collection.

### 4. Design specifications and analysis Care cases

In practice some of the considerations described in Chapter 3 could not be followed up entirely. In Chapter 4 we therefore describe the actual application of the design in the first set of case studies. For these case studies first-year Care students from SVE level 3

from both pathways were selected. They participated in WPL in nursing homes. Besides the students, their WPL mentors were also involved as respondents. The WPL teachers of the s-b pathway students were involved as well. In a period of around ten weeks, we for example observed students' introductory meetings at the workplace and observed the students at work for a part of the working day. The WPL mentors, students and the s-b pathway students' WPL teachers were also interviewed.

The research data were transcribed verbatim and analysed by coding and comparison. An external researcher was involved for check-coding and two others were involved by discussing 'contact summary sheets' about part of the data. The basic research model (Figure 2) served as a starting point and was adjusted based on the data. The additions and modifications are also described in Chapter 4. Regarding the learning outcomes, for example, we decided to select two modifications of the attainment targets and two other learning outcomes that were identified in the data. These are 'personal basic care', 'interaction with residents and colleagues', 'learning to learn' and 'knowledge of the organisation and work process' respectively.

The descriptive fragments in the data were grouped to describe the learning environment and the learner background. In the learning process analysis, the learning outcome was used as a starting point. Fragments were either related to the codes related to internal acquisition or to social interaction, concerning a particular learning outcome. All fragments with codes related to either internal acquisition or social interaction were grouped, because these types of processes could not be inferred from single fragments. To infer the type of internal acquisition, different fragments related to prior knowledge, motivation, the resulting learning outcome and any other situational information were combined. We could not use grading of assignments to determine the learning outcome level. Assessment is already a problem in SVE; in addition hardly any of the students completed assignments in the first place. A more general framework for assessment was therefore used to have at least some means of determining the progress achieved regarding the job-specific learning outcomes. For the outcomes 'learning to learn' and 'knowledge of the organisation and work process', the outcome level cannot be determined based on this framework and these learning outcome levels are therefore based on verbal comments related to the data.

After analysis of the individual Care cases, cross-case analysis was carried out. After within-sector comparison of the Care cases between the individual students and between the pathways, the Retail cases were analysed and compared in the same way. Then Care and Retail were compared and w-b pathway and s-b pathway students from both sectors were compared.

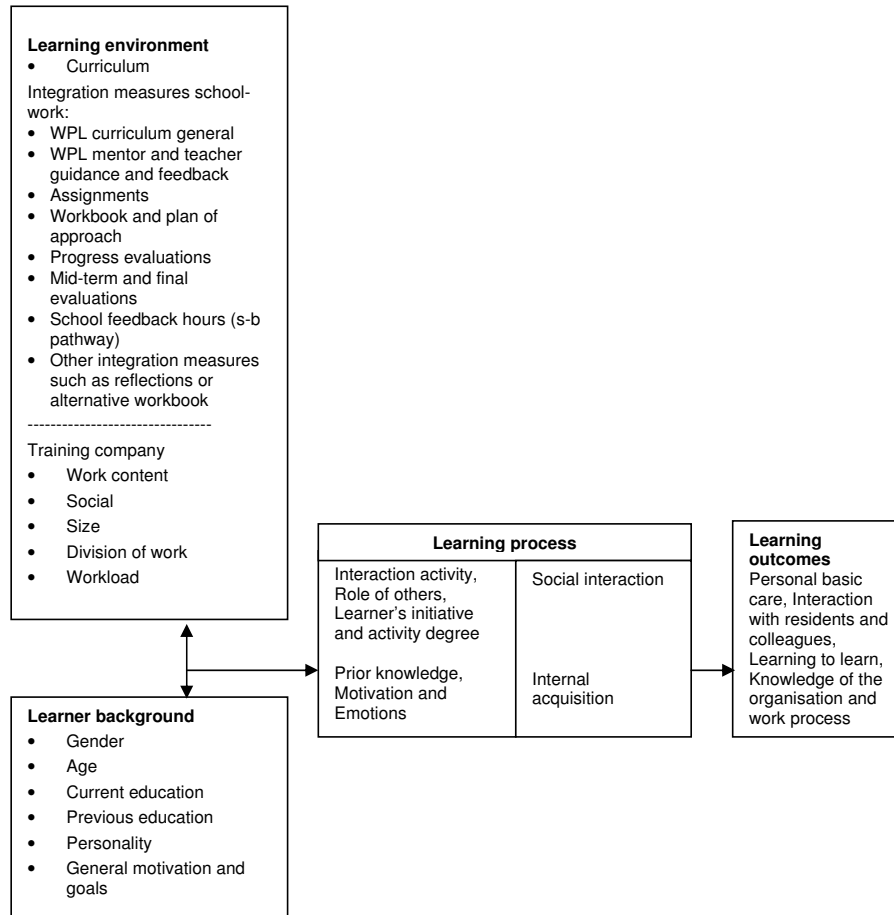


Figure 3: Adjusted framework of description

### 5. Learning processes in Care

In Chapter 5, the adjusted framework of description is presented as displayed in Figure 3. First the general Care curriculum specified to WPL is described. One of the Care cases is extensively described in Chapter 5 to illustrate how the case summaries and conclusions have been based on the extensive descriptions<sup>1</sup>. The extensive description is followed by a summary display of the background to the case and one-page summaries on the learning processes per learning outcome. The case conclusions are based on tables that correspond to the research model format, displaying the influencing factors, types of social interaction and internal acquisition processes and level of the learning outcome.

<sup>1</sup> The extensive descriptions of the remainder of the Care cases are presented on the accompanying CD-ROM for reference. In Chapter 7, the Retail case summaries are presented, of which the extensive descriptions are also available on the CD-ROM.

## 6. Care case studies results

In Chapter 6 the remainder of the Care cases are summarised and the case conclusions and cross-case conclusions are discussed. While the influences from the learning environment and the learner could be presented in a table similar to the research model in the individual cases, this is less straightforward in relation to the cross-case conclusions. This is because the types of learning processes that occur depend on the strength and combination of influences in the individual case. Consequently, although recurring elements that have an influence could be identified among the cases, we cannot present one general model for learning in WPL in Care. We can only present the recurring elements that have an influence in relation to the research model. These are presented in Figure 4.

The training company influences as identified in the research model could be recognised in the results. Positive forms of these elements generally have a positive influence. For example, a good social atmosphere in the training company is beneficial in relation to learning. The influences are not always present in a positive form, however. The workload in the Care cases, for example, is often high, which negatively influences learning. In relation to the WPL curriculum, students are usually introduced to the work gradually, which is positive. However, the mentor job is arranged differently in each nursing home, and guidance is often inconsistent. Most students have little to very little contact with their WPL teachers. Although some integration measures have a positive influence, their use generally deviates from what was intended to a large extent.

From the learner's background, 'personality' is of significant influence. Specific prior knowledge and motivation play an important role. The types of learning processes were indeed shown to depend on the cognitive, emotional and social concurrently. We could not conclude that a particular category of learning outcome is always learnt through a particular type of internal acquisition, or that particular students always learn in particular ways. One generalisation is that 'non-learning' occurs rather frequently in relation to the 'learning to learn' process, which also raises doubts about the other learning outcomes that the students involved were claimed to have achieved - even though they initially seem satisfactory to good. Nearly all types of social interaction processes are usually involved in WPL. The more instructive types are generally followed by the more independent types.

Although the development of 'knowledge of the organisation and work process' could be viewed as something 'extra' that the Care students achieve, the lack of assignment completion also influences this learning outcome. We compared the 'knowledge of the organisation and work process' with 'work process knowledge' (Boreham, 2004) because the latter appears to be important in relation to the trends of the present competitive economy, as sketched in Chapter 1. However, one of its criteria is that theoretical knowledge is synthesised with the practical knowledge developed at work.

This was not achieved considering the lack of assignment completion. In addition, the ‘balance’ in terms of assimilation and accommodation regarding the internal acquisition processes, which is presumably related to better transfer possibilities, is only reflected in a small minority of the cases.

The ‘current education’ element in Figure 4 represents possible differences between WPL in the s-b and w-b pathway. Only small influences in terms of WPL curriculum and type of people could be identified, resulting in a small difference in social interaction processes but no other general differences in learning processes and outcomes. Although non-learning did occur more in the w-b pathway cases, the number of students is all in all too small for drawing firm conclusions about pathway differences.

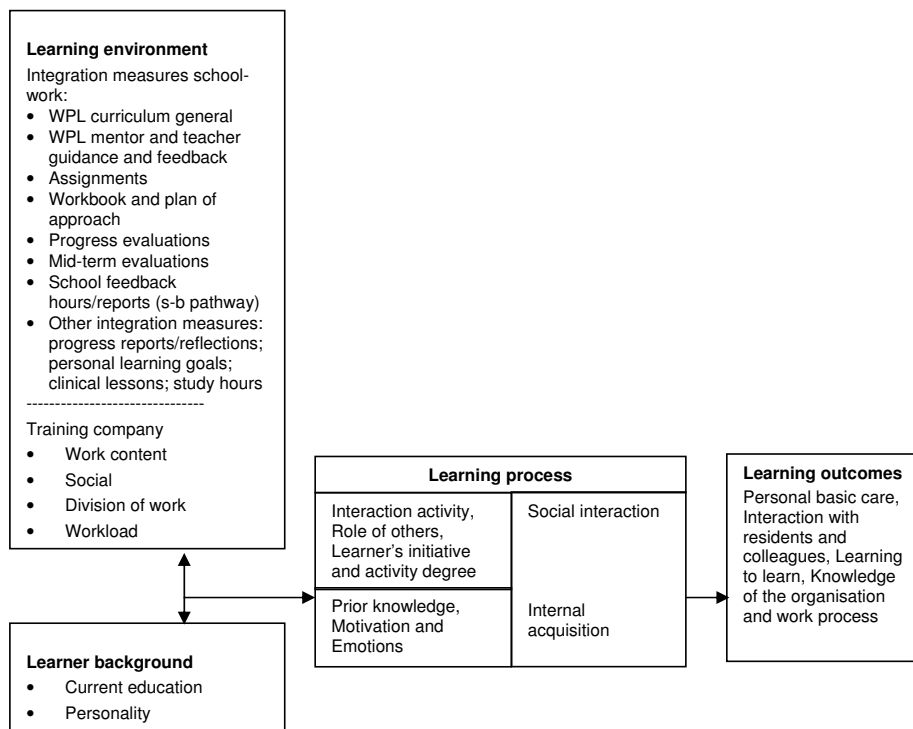


Figure 4: Influences on the learning process for the Care cases in relation to the research model

### 7. Retail cases

In Chapter 7 the design specifications and analysis and the results of the Retail cases are presented. Three s-b and three w-b pathway students were selected. It was more difficult to find comparable students in this sector, because of the flexibility in the course.

Ultimately the six students involved were level 4 (three s-b pathway and one w-b pathway) and level 3 (two w-b pathway) students who had all completed their first year. The period of the study was comparable to that in Care and also concerned observations and interviews. There were fewer opportunities for connecting data collection to existing activities to discuss and assess learning, however. In addition, in the Care interviews it proved difficult to discuss the entire WPL process of a ten-week period in only one interview. Consequently, several shorter interviews with the mentors (two interviews) and students (three interviews) were conducted, and students were also asked to fill in two brief questionnaires about their WPL. In the Retail cases, the WPL teachers involved with both s-b and w-b pathway students were interviewed as well.

Analysis of the Retail data was basically similar to analysis in the Care cases. In the Retail cases, however, grades were available for use in determining the learning outcome levels. The learning outcome categories were logically different from those in Care. There were no attainment target clusters on which all the Retail students were working at the same time, although in practice the students basically all worked on the same tasks. These tasks belonged to different attainment target clusters, which were not all formally part of the curriculum during the period of the study. They were generally 'smaller' than attainment targets or attainment target clusters and it seemed more appropriate therefore to take them together and describe them in a comprehensive 'shop performance' category. This category includes 'knowledge of the organisation and work process'. In addition, we wanted to know how 'learning to learn' was handled in the Retail cases.

After the Retail curriculum description, the summaries, conclusions and cross-case conclusions of the Retail case studies are presented basically according to the same structure as the Care cases. The cross-case conclusions show which were the recurring influences on the learning processes from the learning environment and the learner in the Retail cases. These are shown in Figure 5.

All training company influences as identified beforehand could be recognised in the data. Positive forms generally have a positive influence; however, the work content in the Retail cases is not always present in a positive form.

In relation to the WPL curriculum, theory lessons at school are related to the designated WPL assignment booklet. Some students are gradually becoming more independent; on the other hand, the students generally work on the same tasks throughout the period studied. Learning is hardly supported by organised learning activities during this period. While WPL mentor guidance is generally appreciated by the students, the mentors barely monitor the WPL process closely. Use of integration measures and assessment do not take place as intended. In addition, most WPL teachers hardly play a role in the students' learning processes either.

Personality and 'general motivation and goals' are influencing factors from the learner background. Specific prior knowledge and motivation are significant. The students generally learn via all categories of social interaction processes. Because learning



mostly takes place gradually from sufficient prior knowledge and with sufficient to high motivation, ‘assimilation’, in most cases complemented by some reflection, is the general internal acquisition process in ‘shop performance’. The related outcome levels appear to be more than satisfactory. Assimilation and reflection is also the internal acquisition in relation to ‘learning to learn’ for three students, although the other three show ‘non-learning’ in this respect. This raises doubts about these students’ other learning outcomes as well, as does unreliable assessment in virtually all cases. There are no clear differences between the s-b pathway and w-b pathway students in Retail.

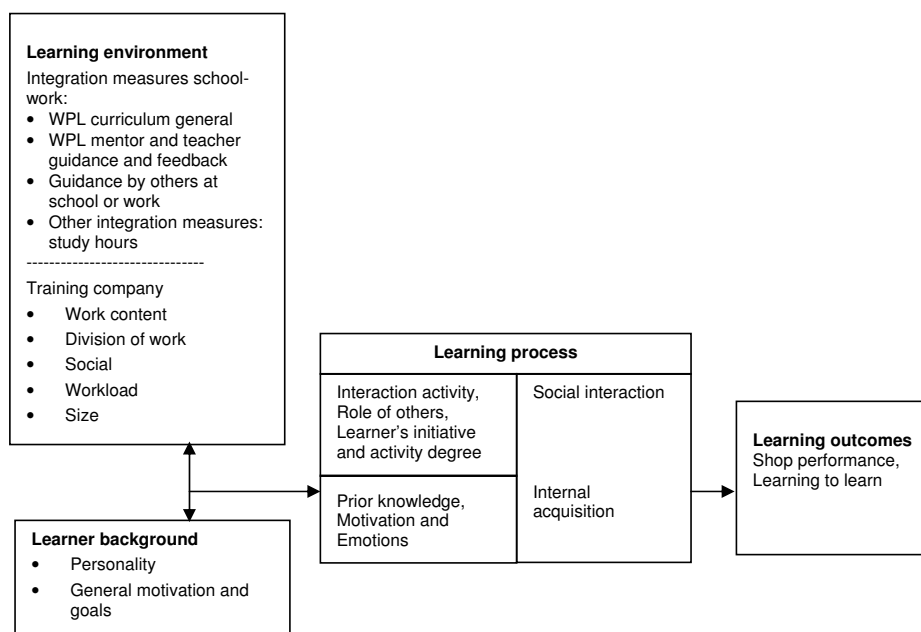


Figure 5: Influences on the learning process for the Retail cases in relation to the research model

## 8. Conclusions and recommendations

In the final chapter we reflect on the research approach and the theoretical framework, before we draw conclusions and offer recommendations. We first discuss the way in which the quality considerations as indicated in Chapter 3 were met, to show how we have attempted to provide as much insight as possible into the specific cases and WPL in general. We also comment on data collection and the generalisability of the findings.

The theoretical framework was considered very useful as a starting point for describing WPL. It helped to show the complexity of the interaction between the cognitive, emotional and social dimension. We view this interaction, rather than the range of specific variables that may influence learning, of main concern. In addition, the concept

of 'non-learning' proved to be very significant. Many of the elements in terms of learning environment and learner as identified beforehand were recognised in the data, although we made some adjustments.

The conclusions show which recurring influences were found in both sectors and separately, as displayed in Figure 6. All training company influences that were identified in advance were of influence both in the Care and the Retail sector, and generally had a positive influence in their positive form, although they were not always present in a positive form. Size, which was identified as an element in the Care cases, only (indirectly) influenced some Retail cases. The WPL curriculum was generally identified as a positive influence, while the specific integration measures such as WPL mentor guidance and feedback left much to be desired. It is inconsistent or not intensive enough and assessment is usually problematic - the latter is incidentally confirmed by some WPL mentors and teachers' comments. WPL teacher guidance is not sufficient either: the teachers generally play a very small role in the students' learning processes. Students also have difficulties with taking responsibility for their learning.

Gender, age or previous education were not identified as influencing learner background factors. It is remarkable that previous education is not identified as an influence. Personality turned out to be an 'other' influence from the learner background. Specific prior knowledge and motivation are very important. They are generally sufficient in relation to the work, and insufficient in relation to 'learning to learn'. Retail students appear to deal with 'learning to learn' better because their curriculum is more 'self-regulated' from the outset. In that sense curriculum does have an influence on the cases in both sectors, although it was not recognised as such in the separate case studies.

Nearly all social interaction processes are involved throughout WPL in virtually all cases, although their proportion may not always be adjusted to the students' needs. There is no generally occurring internal acquisition process, because this depends on specific combinations of cognitive, emotional and social elements. Although the students appear to achieve more than satisfactory outcomes regarding the job-specific learning outcomes and 'knowledge of the organisation and work process', there are doubts. Firstly, we question assessment. Secondly, there is not much 'balance' in terms of an interaction between assimilation and accommodation, while such a balance is assumed to be beneficial in terms of transfer. There is a lot of 'non-learning' regarding 'learning to learn' especially, which in turn reinforces the reservations about the other learning outcomes. These findings imply that we can seriously doubt the extent to which the learning outcomes studied were realised. In principle it is viewed as an asset, however, that 'knowledge of the organisation and work process' was developed although it is not an intended learning outcome.

Especially when the groups are put together, the differences between s-b pathway and w-b pathway students seem to disappear. Because of the small number of students also in total, we cannot draw firm conclusions regarding the pathways, however.

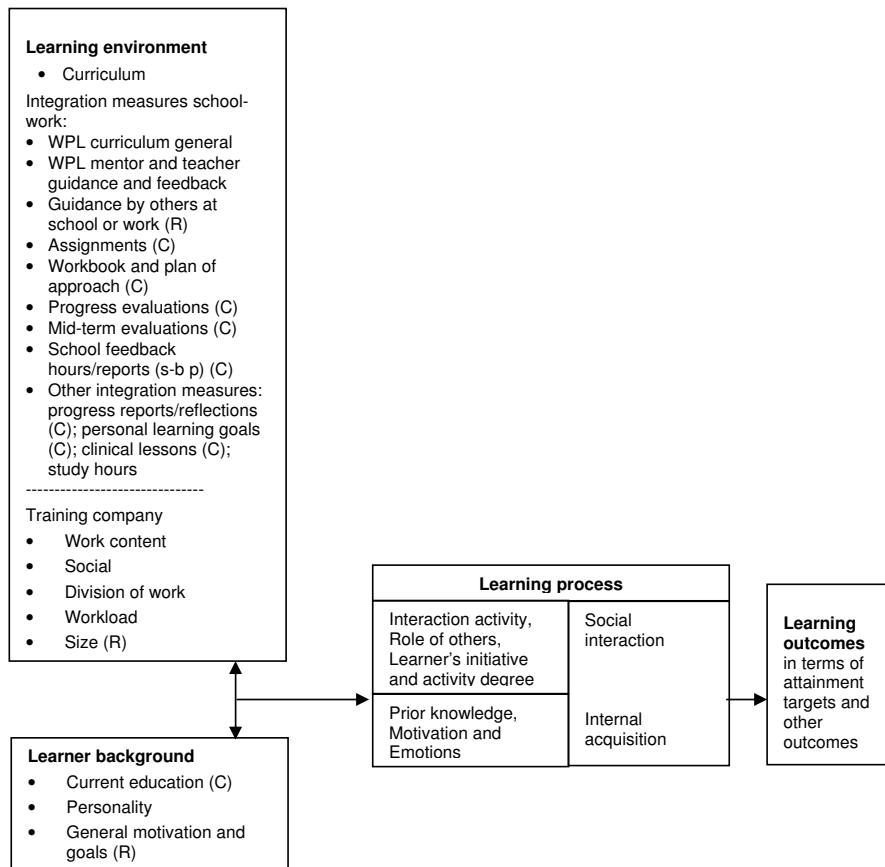


Figure 6: Influences on the learning process in relation to the research model (R = Retail, C = Care)

The role of WPL in SVE can be critically discussed based on the findings. Firstly, WPL is a long way from providing a foundation for lifelong learning. Although the acquisition of 'knowledge of the organisation and work process' can be viewed as an asset, it is not comparable in level with 'work process knowledge', which is related to the general trend of workers needing to be willing and capable of learning and performing new tasks and roles. Secondly, the findings show that transfer is unlikely to be assured by WPL. Thirdly, the findings show that the integration measures and their use require major improvement. The issue of pathway differences is not resolved by the findings of this study, perhaps because of the small number of students. WPL mentors

and teachers' opinions in this respect generally confirmed that the pathways do not deliver essentially different students in general.

Although we are very critical about the learning potential of WPL and previous studies have also shown that (previous) workplace learning components are not ideal, an optimistic, confident view about workplace learning in general and WPL in particular seems to be maintained. WPL, however, requires at least serious improvements to deserve its appeal and an increasingly important role in SVE. The first starting point for improvement that was identified in this study relates to the confirmation of the learning theory used. To improve WPL, all three dimensions of learning, (the 'triangle', see Figure 1) need to be taken into account. The second starting point concerns a 'triangle' at a higher level: the parties involved, i.e. the student, the school and the training company need to take their responsibility. Students need to be able and willing to learn, and ROCs and their WPL teachers, and training companies and their WPL mentors need to provide the right framework of conditions and working and learning opportunities. In other words, a systemic approach needs to be applied to improve WPL.

Although there are possibilities for describing learning processes in more detail than carried out in this study, it might be more relevant to use the 'triangle' for *designing* WPL and doing related research. Several studies have shown that designing workplace learning in the context of SVE is by no means a straightforward endeavour, which is why more research in this direction would be essential.

## Samenvatting

### 1. Leerprocessen op het werk in het middelbaar beroepsonderwijs

In hoofdstuk 1 wordt het onderwerp werkpleklers geïntroduceerd. Eerst wordt ingegaan op de rol van werkpleklers in arbeidsorganisaties en in het mbo. Vervolgens wordt ingegaan op de in de afgelopen jaren toegenomen aandacht voor werkpleklers. In het Nederlandse mbo speelt werkpleklers een belangrijke rol in de vorm van de 'beroepspraktijkvorming' (BPV). Het mbo kent twee leerwegen die naar het diploma leiden. In de 'BOL' (beroepsopleidende leerweg) wordt school aangevuld met BPV in een bedrijf (geaccrediteerd als leerbedrijf) voor 20 tot 60 procent van de opleidingstijd. In de 'BBL' (beroepsbegeleidende leerweg) zijn leerlingen aangesteld als werknemer bij het leerbedrijf voor meer dan 60 procent van de opleidingstijd. Voor de resterende tijd gaan zij naar school. Een daarvoor aangestelde praktijkopleider begeleidt de leerlingen in het leerbedrijf. De praktijkdocent begeleidt de leerlingen vanuit het regionale opleidingscentrum (ROC) waar de leerlingen school volgen.

Werkpleklers is onderwerp van hoge verwachtingen. Zo wordt bijvoorbeeld verwacht dat werkpleklers bijdraagt aan het reduceren of zelfs oplossen van het transferprobleem. Ook argumenten gerelateerd aan de snelle veranderingen in economische, technische en sociale omstandigheden en het 'levenslang leren' idee, het argument van ontwikkeling van vaardigheden en het argument van leren over carrièremogelijkheden zijn van belang. Als we deze argumenten echter kritisch beschouwen, dan rijst de vraag of ze daadwerkelijk geldig zijn. In het bijzonder heeft de WEB-evaluatie (Wet educatie en beroepsonderwijs, 1996) (1999 - 2001) aangetoond dat ROCs de BPV onvoldoende aansturen. We kunnen dus twijfelen over de voordelen van werkpleklers in het algemeen en de BPV op zich is ook niet zonder problemen. Bovendien rijst in verband met de verschillen in BPV-tijdsbesteding en leerling-status tussen de beide leerwegen, de vraag of deze inderdaad gelijkwaardig zijn, zoals vastgelegd in de WEB. Omdat het ontbreekt aan inzicht in hoe BPV-leerprocessen zich voltrekken, is het doel van dit onderzoek om deze processen te beschrijven. De eerste onderzoeksvraag luidt derhalve: Hoe kunnen we BPV-leerprocessen en gerelateerde leeruitkomsten beschrijven? De tweede vraag luidt: Hoe kunnen we de BBL onderscheiden van de BOL in termen van BPV-leerprocessen en gerelateerde leeruitkomsten?

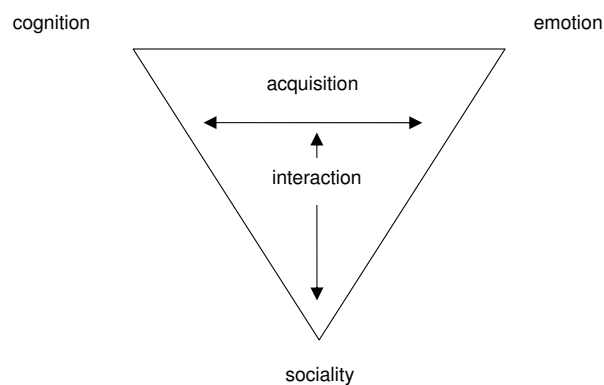
### 2. Werkpleklers als proces

In hoofdstuk 2 wordt werkpleklers als proces beschouwd. We definiëren leren als een verandering in gedrag of verandering in de capaciteit voor gedrag, die relatief duurzaam is, en het resultaat is van oefening of ervaring. Werkpleklers beschouwen we als uniek in termen van de context en niet wat betreft de mechanismen van het leren.

In de belangrijke leertheorieën ontbreekt in het algemeen de integratie tussen de sociale en de cognitieve dimensies van leren. Leren wordt gezien als òf de verwerving en opeenstapeling van kennis ('acquisitiemetafoor'), of als een doorlopende activiteit die

sterk afhankelijk is van de context waarin het plaatsvindt en toenemende deelname in zogenaamde communities of practice inhoudt ('participatiemetafoor'). Deze benaderingen zouden gecombineerd moeten worden. In Illeris' (2002) leertheorie wordt leren gezien als het resultaat van processen in zowel de sociale dimensie (het sociale interactieproces) en de emotionele en cognitieve dimensies (interne acquisitieproces), zoals gevisualiseerd in Figuur 1.

Figuur 1: De drie dimensies van leren (overgenomen van Illeris, 2002; 2003)



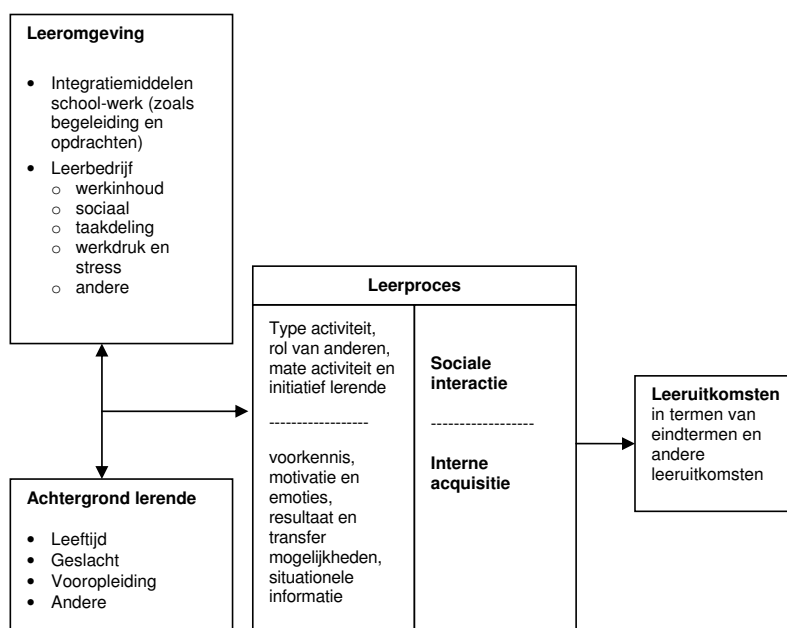
Het sociale interactieproces betreft de interactie tussen de leeromgeving en de lerende. Dit verwijst naar het type activiteit van de lerende, de rol van anderen en de mate waarin de lerende actief is en het initiatief neemt om te leren. De categorieën van sociale interactie zijn perceptie, transmissie, ervaring, imitatie, activiteit en participatie. De categorieën zijn deels overlappend en 'hogere' categorieën verwijzen naar een actievere rol en meer onafhankelijkheid van de lerende. Het sociale interactieproces leidt tot impulsen die intern worden verwerkt en verworven of verder ontwikkeld worden. De categorieën van het interne verwerkingsproces zijn accumulatie, assimilatie, accommodatie of transformatie. Welk type optreedt hangt af van voorkennis en de benodigde psychologische energie (motivatie en emotie). Voor de laatste categorieën is meer psychologische energie nodig en deze processen hebben meer impact op bestaande cognitieve structuren. Echter, leren vindt niet altijd in positieve zin plaats. We kunnen ook zogenaamd 'non-leren' onderscheiden (Illeris, 2002; 2004). De betreffende categorieën zijn 'mislearning', 'resistance' en 'defence', in volgorde van ernst.

Om de typen sociale interactie en interne acquisitie beter van praktijksituaties af te kunnen leiden, is het kader van Illeris verder uitgewerkt.

Invloeden van de lerende en de leeromgeving dienen ook een plaats in het beschrijvingskader te krijgen, omdat de sociale interactie tussen deze plaatsvindt. De van belang geachte invloeden zijn afgeleid van literatuur gerelateerd aan Illeris' theorie (Illeris & Associates, 2004). Tevens zijn de zogenaamde 'integratiemiddelen' zoals gebruikt door het ROC en het leerbedrijf om de BPV te sturen, opgenomen. Figuur 2 visualiseert de eerste versie van het onderzoeksmodel om de BPV te beschrijven.

Volgens dit model zijn de eindtermen die de leerlingen tijdens de BPV moeten bereiken het resultaat van de sociale interactie tussen de leeromgeving en de lerende en de daaropvolgende interne acquisitie.

Het model houdt rekening met de mogelijkheid dat andere kenmerken van de leeromgeving of de lerende in de data ontdekt worden en dat ook andere leeruitkomsten dan de eindtermen worden bereikt.



Figuur 2: Onderzoeksmodel voor het beschrijven van de BPV

### 3. Case studie design

Het onderzoeksdesign presenteren we in hoofdstuk 3. Het doel was om te bestuderen hoe leerprocessen in de werkelijke werkcontext plaatsvonden. Hiervoor werd een kwalitatieve, beschrijvende aanpak het geschiktst geacht. Er werd gebruik gemaakt van een multiple case study design om de BPV in het algemeen te bestuderen in plaats van alleen individuele cases. Twee sectoren en daarbinnen drie leerlingen van elke leerweg werden in het onderzoek betrokken, resulterend in 12 cases. De sectoren waren Verzorging en Handel.

Het dataverzamelingsplan, de kwaliteitsoverwegingen en de gerelateerde triangulatie-aanpak worden beschreven in hoofdstuk 3. Tevens worden de typen en toepassing van dataverzamelingsinstrumenten uitgelegd.

#### 4. Design specificaties en analyse in de cases Verzorging

In de praktijk was het niet mogelijk om alle overwegingen met betrekking tot het design zoals beschreven in hoofdstuk 3 uit te voeren. In hoofdstuk 4 beginnen we daarom met een beschrijving van de daadwerkelijke uitvoering van het onderzoeksontwerp in de Verzorging cases. Voor deze cases werden eerstejaars leerlingen Verzorging, niveau 3, van beide leerwegen geselecteerd. Zij volgden de BPV in verzorgings- en verpleegtehuizen. Hun praktijkopleiders werden ook bij het onderzoek betrokken. Tevens werden de praktijkdocenten van de BOL-leerlingen als respondenten bij het onderzoek betrokken. In een onderzoeksperiode van ongeveer tien weken zijn bijvoorbeeld de introducties van leerlingen op het werk geobserveerd en zijn de leerlingen gedurende een deel van de werkdag geobserveerd. Praktijkopleiders, leerlingen en de praktijkdocenten van de BOL-leerlingen werden ook geïnterviewd.

De verkregen data werden letterlijk uitgeschreven en geanalyseerd door middel van codering en vergelijking. Een externe onderzoeker voerde check-codering uit en twee andere externe onderzoekers droegen bij aan een discussie over de data door middel van de 'contact summary sheet' methode. Het onderzoeksmodel (Figuur 2) diende als uitgangspunt en werd aangepast op basis van de data. De toevoegingen en wijzigingen worden tevens in hoofdstuk 4 besproken. Wat betreft de leeruitkomsten werd besloten om twee aangepaste eindtermen en twee andere leeruitkomsten die waren geïdentificeerd in de data, te selecteren. De leeruitkomsten die derhalve beschreven worden zijn 'persoonlijke basiszorg', 'interactie met bewoners en met collega's', 'leren leren' en 'kennis van de organisatie en het werkproces'.

De beschrijvende fragmenten in de data werden gegroepeerd om de leeromgeving en de achtergrond van de lerende te beschrijven. Voor de analyse van het leerproces werden de leeruitkomsten als uitgangspunt gebruikt. De fragmenten zijn gerelateerd aan codes die horen bij de interne acquisitie of bij de sociale interactie, wat betreft een specifieke leeruitkomst. Alle fragmenten gecodeerd als ofwel interne acquisitie ofwel sociale interactie werden gegroepeerd, omdat deze typen processen niet van enkele fragmenten afgeleid kunnen worden. Om het type interne acquisitie te bepalen, werden verschillende fragmenten gerelateerd aan voorkennis, motivatie, de resulterende leeruitkomst en andere situationele informatie, gecombineerd. Het niveau van leeruitkomsten kon niet worden bepaald aan de hand van cijfers. Beoordeling is een algemeen probleem in het mbo; bovendien had bijna geen enkele betrokken leerling opdrachten uitgewerkt waarop de beoordeling gebaseerd wordt. Er werd daarom een algemener kader gebruikt om toch enige vorm van beoordeling van voortgang wat betreft de vakspecifieke leeruitkomsten te hebben. Voor de leeruitkomsten 'leren leren' en 'kennis van de organisatie en het werkproces' is het niet mogelijk het niveau te bepalen aan de hand van dit kader en het niveau van deze uitkomsten wordt daarom beschreven aan de hand van commentaar gebaseerd op de data.



Na analyse van de individuele cases Verzorging werd cross-case analyse uitgevoerd. Na vergelijking van de individuele cases binnen de sector en tussen de leerwegen binnen de sector, werden de cases Handel op dezelfde wijze geanalyseerd. Vervolgens werden Verzorging en Handel vergeleken en werden BBL- en BOL-leerlingen van beide sectoren vergeleken.

### **5. Leerprocessen bij Verzorging**

In hoofdstuk 5 wordt het aangepaste beschrijvingskader zoals in Figuur 3 gepresenteerd. Ten eerste beschrijven we het algemene curriculum voor Verzorging wat betreft de BPV. Eén van de cases Verzorging wordt uitgebreid beschreven in hoofdstuk 5, om te illustreren hoe de samenvattingen en conclusies gebaseerd zijn op de uitgebreide beschrijvingen<sup>1</sup>. De uitgebreide beschrijving wordt gevolgd door een samenvatting van de achtergrond van de lerende en één-pagina lange samenvattingen van de leerprocessen per leeruitkomst. De conclusies van de case zijn gebaseerd op tabellen die overeenkomen met de vorm van het onderzoeksmodel. Hierin worden de beïnvloedende factoren, typen sociale interactie en interne acquisitieprocessen en het niveau van de leeruitkomst weergegeven.

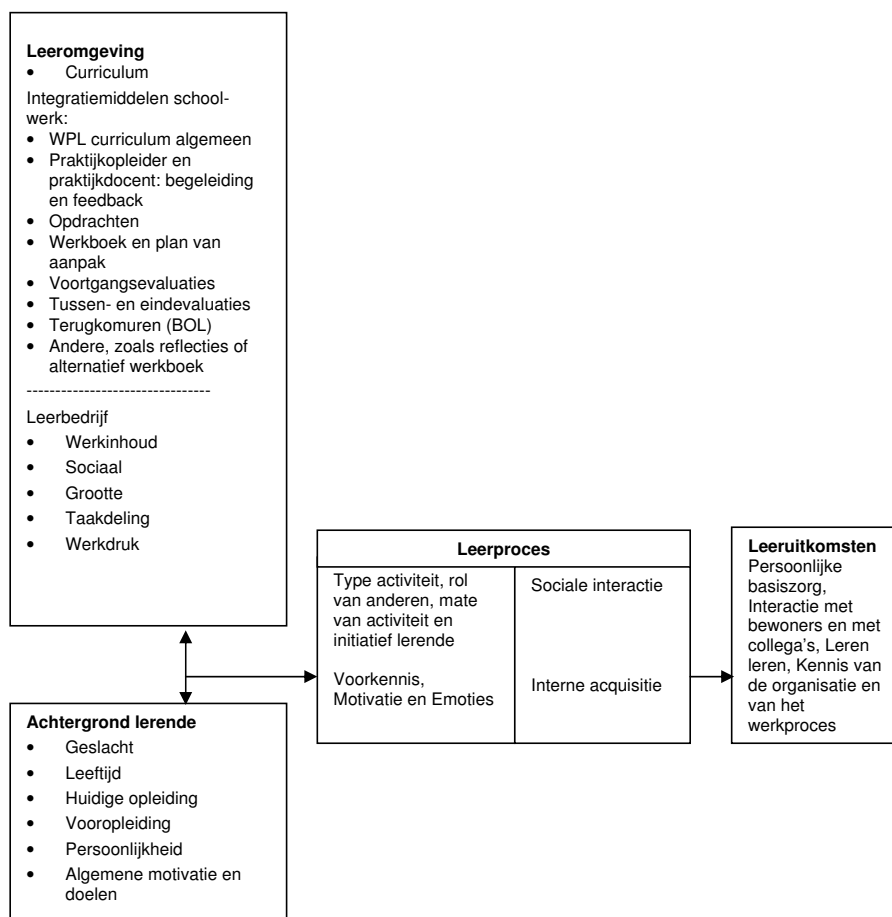
### **6. Resultaten van de Verzorging cases**

In hoofdstuk 6 worden de overige Verzorging cases samengevat en de case conclusies en cross-case conclusies worden besproken. Terwijl de invloeden gerelateerd aan de leeromgeving en de lerende in de individuele cases in een tabel overeenkomend met het onderzoeksmodel konden worden gepresenteerd, is dit voor de cross-case conclusies minder eenvoudig uitvoerbaar. Dit komt doordat de typen leerprocessen afhankelijk zijn van de sterkte en combinatie van invloeden in de individuele cases. Hoewel het wel mogelijk is om bij meerdere cases terugkerende invloeden te herkennen, is het niet mogelijk om een algemeen model voor leren in de BPV bij Verzorging op te stellen in termen van zowel de invloed als de richting van de beïnvloedende elementen. We kunnen slechts de terugkerende elementen aangeven. Deze worden gepresenteerd in Figuur 4.

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<sup>1</sup> De uitgebreide beschrijvingen van de overige cases Verzorging zijn beschikbaar op de begeleidende CD-rom. In hoofdstuk 7 worden de samenvattingen van de cases Handel beschreven, waarvan de uitgebreide beschrijvingen tevens op de CD-rom staan.

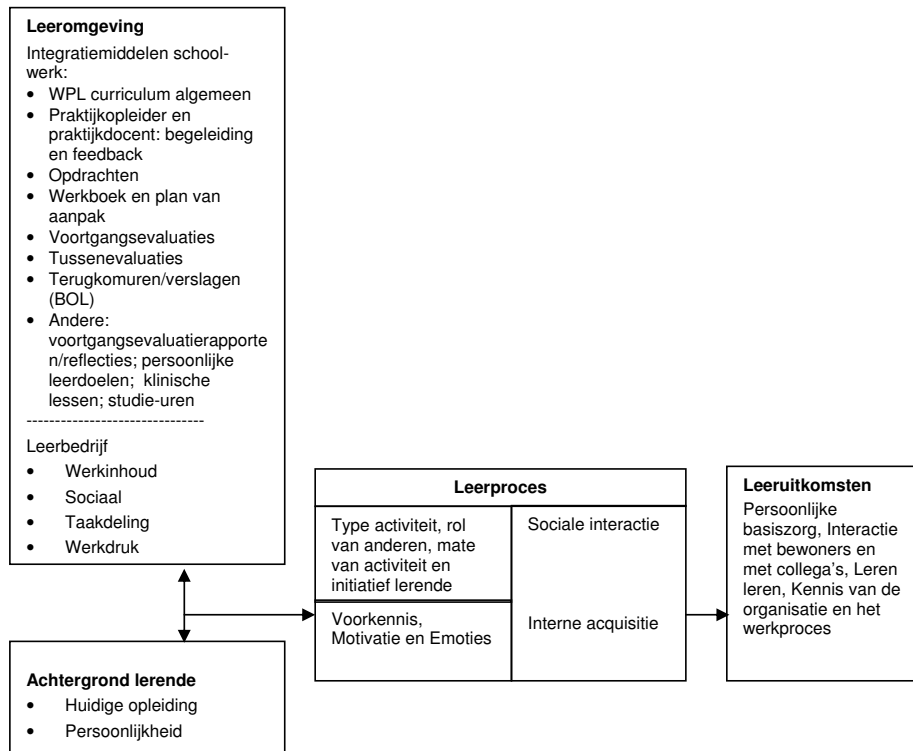
Figuur 3: Aangepast beschrijvingskader



De invloeden van het leerbedrijf zoals vooraf in het onderzoeksmodel geïdentificeerd werden in de resultaten herkend. Deze invloeden werken in het algemeen positief in hun positieve vorm. Zo is een goede sociale atmosfeer in het leerbedrijf van positieve invloed op leren. Echter, de elementen zijn niet altijd in positieve vorm aanwezig. De werkdruk in de Verzorging cases is bijvoorbeeld vaak hoog, wat leren negatief beïnvloedt.

Wat betreft het BPV-curriculum worden leerlingen vaak geleidelijk in het werk geïntroduceerd, wat positief werkt. De functie van praktijkopleiders is echter vaak verschillend georganiseerd van leerbedrijf tot leerbedrijf en de begeleiding is vaak inconsistent. Veel leerlingen hebben weinig tot heel weinig contact met hun

praktijkdocenten. Hoewel enkele integratiemiddelen een positieve invloed hebben, wijkt de toepassing ervan vaak sterk af van hun bedoeling.



Figuur 4: Invloeden op het leerproces in de Verzorging cases

Persoonlijkheid is een belangrijk element wat betreft de achtergrond van de lerende. Specifieke voorkennis en motivatie spelen eveneens een belangrijke rol. De typen leerprocessen hangen inderdaad af van de combinatie van cognitieve, emotionele en sociale elementen. Er kon niet geconcludeerd worden dat een bepaalde leeruitkomst altijd door een bepaald type interne acquisitie werd geleerd, of dat bepaalde leerlingen altijd op bepaalde manieren leren. Een generalisatie is dat ‘non-leren’ vrij vaak voorkomt wat betreft het proces van ‘leren leren’, wat weer twijfels oproept wat betreft de andere leeruitkomsten die de betrokken leerlingen bereikt zouden hebben - al lijken deze in eerste instantie voldoende tot goed te zijn bereikt. Bijna alle typen sociale interactie zijn meestal betrokken bij de BPV. De typen met een grotere rol voor anderen worden in het algemeen gevolgd door de meer zelfstandige typen.

Hoewel de verwerving van ‘kennis van de organisatie en het werkproces’ door de leerlingen Verzorging als ‘extra’ kan worden gezien, beïnvloedt het gebrek aan het

maken van opdrachten ook deze leeruitkomst. We vergeleken de ‘kennis van de organisatie en het werkproces’ met ‘work process knowledge’ (Boreham, 2004) omdat de laatste belangrijk is in relatie tot the hedendaagse competitieve economie, zoals geschetst in hoofdstuk 1. Eén van de criteria is echter dat theoretische kennis met de praktische werkkennis geïntegreerd wordt. Dit werd niet gerealiseerd door het gebrek aan het maken van opdrachten. Bovendien werd slechts in een klein aantal gevallen de ‘balans’ wat betreft assimilatie en accommodatie gerealiseerd, waarvan wordt aangenomen dat het tot betere transfermogelijkheden leidt.

Het element ‘huidige opleiding’ in Figuur 4 representeert mogelijke verschillen wat betreft BPV in de BOL en de BBL. We vonden slechts kleine invloeden in termen van BPV-curriculum en type personen, resulterend in kleine verschillen in sociale interactieprocessen, maar geen andere algemene verschillen in leerprocessen en uitkomsten. Hoewel non-leren vaker voorkwam in de BBL cases, is het totaal aantal leerlingen te klein om sterke conclusies te trekken wat betreft verschillen tussen de leerwegen.

#### **7. Handel cases**

In hoofdstuk 7 worden de specificaties van het onderzoeksdesign en de analyse gerelateerd aan de Handel cases gepresenteerd. Dit hoofdstuk bevat tevens de resultaten. Drie BOL- en drie BBL-leerlingen werden geselecteerd voor deelname. Het was in deze sector moeilijker om vergelijkbare leerlingen te vinden, vanwege de flexibiliteit van de opleiding. Uiteindelijk werden zowel niveau 4 (drie BOL en één BBL) als niveau 3 (twee BBL) leerlingen geselecteerd. Al deze leerlingen hadden hun eerste jaar afgerond. De duur van dataverzameling was vergelijkbaar met die van de Verzorging cases en er werden eveneens observaties en interviews uitgevoerd. Er waren echter minder mogelijkheden om de dataverzameling te laten aansluiten bij de al bestaande activiteiten om leren te bespreken en te beoordelen in de BPV. Bovendien bleek het tijdens de Verzorging cases lastig om het gehele BPV proces van een tienweekse periode in slechts één interview te bespreken. Om deze redenen werden enkele kortere interviews met de praktijkopleiders (twee interviews) en leerlingen (drie interviews) gehouden en werd de leerlingen tevens gevraagd om twee korte vragenlijsten over hun BPV in te vullen. In de Handel cases interviewden we de praktijkdocenten van zowel de BOL als de BBL-leerlingen.

De analyse vond in principe op dezelfde wijze plaats als in de Verzorging cases. In de Handel cases waren echter wel cijfers beschikbaar om de niveaus van de leeruitkomsten te kunnen bepalen. Verder waren de categorieën leeruitkomsten in de Handel cases uiteraard anders dan in de Verzorging. Er waren geen deelkwalificaties waaraan alle betrokken leerlingen Handel tegelijkertijd werkten, hoewel de leerlingen in de praktijk in principe allemaal aan dezelfde taken werkten. Deze taken behoorden bij verschillende deelkwalificaties, die niet allemaal onderdeel waren van het curriculum voor wat betreft de onderzoeksperiode. Deze taken waren in het algemeen ‘kleiner’ dan eindtermen of

deelkwalificaties; het was daarom voor de hand liggender om ze samen te nemen en te beschrijven als een bredere categorie die we ‘shop performance’ noemen. Kennis van de organisatie en het werkproces is hierbij inbegrepen. We wilden ook weten hoe ‘leren leren’ zich in de Handel cases ontwikkelde.

Na de curriculumbeschrijving voor Handel wat betreft de BPV, presenteren we de samenvattingen, conclusies en cross-case conclusies in essentie volgens dezelfde structuur als bij de Verzorging cases. De cross-case conclusies laten zien welke terugkerende invloeden op de leerprocessen vanuit de leeromgeving en de lerende optreden in de Handel cases. Dit wordt getoond in Figuur 5.

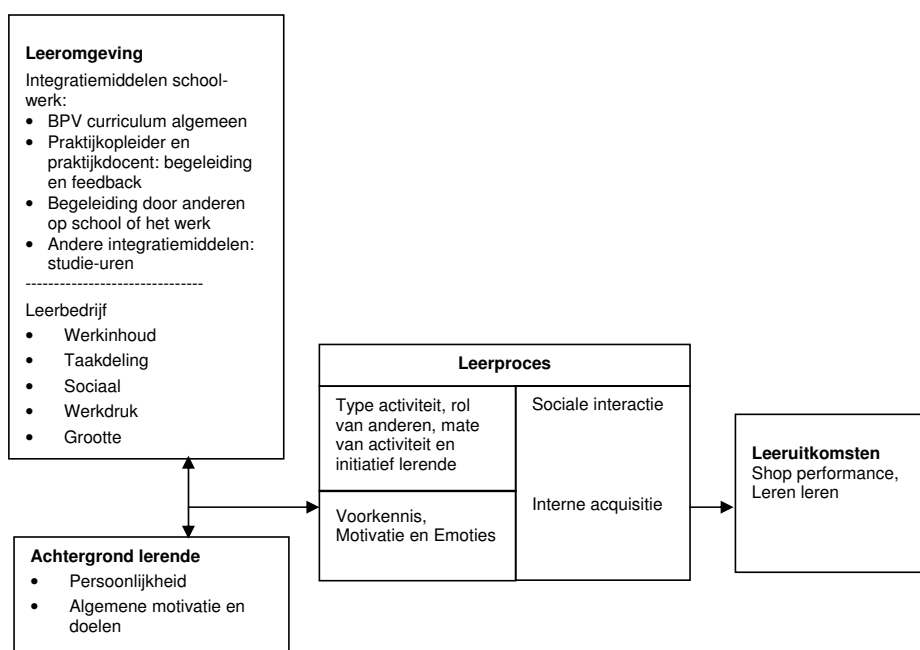
Alle invloeden van het leerbedrijf zoals vooraf geïdentificeerd werden in de data gevonden. Positieve vormen van de leerbedrijf-invloeden werken in het algemeen positief; echter, de werkinhoud is niet altijd in de positieve vorm aanwezig bij Handel. Wat betreft het BPV-curriculum worden de theorielessen op school gerelateerd aan het BPV opdrachtenboek van de betreffende periode. Sommige leerlingen worden geleidelijk aan zelfstandiger, maar de leerlingen werken in het algemeen allemaal aan dezelfde taken gedurende de bestudeerde periode. Leren wordt nauwelijks ondersteund door georganiseerde leeractiviteiten gedurende deze periode. Terwijl de begeleiding van de praktijkopleider over het algemeen door de leerlingen gewaardeerd wordt, vindt sterk toezicht op het leerproces nauwelijks plaats. Het gebruik van de integratiemiddelen en de beoordeling vindt niet plaats zoals bedoeld. Bovendien spelen de meeste praktijkdocenten nauwelijks een rol in het leerproces van de leerlingen.

Persoonlijkheid en algemene motivatie en doelen zijn van invloed vanuit de achtergrond van de lerende. Specifieke voorkennis en motivatie zijn belangrijk. De leerlingen leren over het algemeen door middel van alle categorieën sociale interactieprocessen. Wat betreft ‘shop performance’ is assimilatie, vaak aangevuld met wat reflectie, in de meeste cases het betreffende interne acquisitieproces. Leren vindt namelijk meestal geleidelijk plaats vanuit voldoende voorkennis en met voldoende tot hoge motivatie. De gerelateerde uitkomstniveaus lijken ruim voldoende te zijn. De interne acquisitie voor ‘leren leren’ kan ook als assimilatie en reflectie gekarakteriseerd worden in drie gevallen; echter voor de andere drie leerlingen is het gerelateerde proces te typeren als ‘non-leren’. Dit roept ook vraagtekens op bij hun andere leeruitkomsten, zoals onbetrouwbare beoordeling in bijna alle cases dit doet. Er zijn geen duidelijke verschillen tussen de BOL-leerlingen en de BBL-leerlingen bij Handel.

## 8. Conclusies en aanbevelingen

In het laatste hoofdstuk reflecteren we op de onderzoeksaanpak en het theoretisch kader, waarna we conclusies trekken en aanbevelingen doen. Eerst wordt de manier waarop aan de kwaliteitscriteria is voldaan besproken, om aan te geven hoe we hebben geprobeerd om zo veel mogelijk inzicht in de specifieke cases en de BPV in het algemeen te verkrijgen. Tevens worden de dataverzameling en de generaliseerbaarheid van de bevindingen bediscussieerd.

Het theoretisch kader bleek goed bruikbaar als uitgangspunt voor de beschrijving van de BPV. Dit kader droeg bij aan het in kaart brengen van de complexiteit van de interactie tussen de cognitieve, emotionele en sociale dimensie. De interactie is belangrijker dan de afzonderlijke variabelen die het leren kunnen beïnvloeden. Daarnaast bleek het concept 'non-leren' belangrijk. Hoewel enkele aanpassingen werden gemaakt, werden veel van de elementen in termen van leeromgeving en lerende zoals vooraf geïdentificeerd herkend in de data.



*Figuur 5:* Invloeden op het leerproces voor de Handel cases in relatie tot het onderzoeksmodel

De conclusies laten zien welke terugkerende invloeden in de afzonderlijke sectoren en in beide sectoren gevonden werden, zoals afgebeeld in Figuur 6. Alle leerbedrijf-invloeden die vooraf geïdentificeerd waren, werden zowel in Verzorging als Handel gevonden, en hadden een positieve invloed in hun positieve vorm, hoewel ze niet altijd in positieve vorm aanwezig waren (zoals werkdruk en werkinhoud). Grootte, geïdentificeerd als een element in de Verzorging cases, had alleen (een indirecte) invloed op enkele Handel cases. Het BPV-curriculum werd in het algemeen als positieve invloed gekenmerkt, terwijl de specifieke integratiemiddelen, zoals begeleiding en feedback van de praktijkopleider, veel te wensen overlieten. De begeleiding is inconsistent of onvoldoende en beoordeling is vaak een probleem - dit

laatste wordt overigens bevestigd door opmerkingen van sommige praktijkopleiders en docenten. De begeleiding van de praktijkdocenten is tevens onvoldoende: zij spelen vaak een zeer kleine rol in de leerprocessen van de leerlingen. Tevens hebben leerlingen moeite met het zelf verantwoordelijkheid nemen voor hun leren.

Geslacht, leeftijd of vooropleiding lijken niet van invloed. Het is opmerkelijk dat vooropleiding niet ter zake doet. Persoonlijkheid blijkt een 'andere' invloed vanuit de achtergrond van de lerende. Specifieke voorkennis en motivatie zijn erg belangrijk. In het algemeen zijn zij voldoende wat betreft het werk maar onvoldoende wat betreft 'leren leren'. Handel leerlingen lijken beter om te kunnen gaan met 'leren leren' omdat hun curriculum van het begin af aan meer 'zelfregulerend' is. In die zin heeft curriculum toch invloed op beide sectoren, hoewel het in de sectoren afzonderlijk niet als zodanig herkend was.

Bijna alle sociale interactieprocessen zijn tijdens de BPV in bijna alle cases betrokken, hoewel de proportie van typen processen niet altijd op de behoeften van de leerlingen is toegespitst. Er is geen algemeen type interne acquisitie voor de BPV, omdat de interne acquisitie afhankelijk is van specifieke combinaties van cognitieve, emotionele en sociale elementen. Hoewel de leerlingen ruim voldoende beroepsleeruitkomsten en 'kennis van de organisatie en het werkproces' lijken te bereiken, zijn er twijfels. Ten eerste plaatsen we vraagtekens bij de validiteit en betrouwbaarheid van beoordelen. Ten tweede zijn de interne acquisitieprocessen nauwelijks gebalanceerd in termen van een interactie tussen assimilatie en accommodatie, terwijl een dergelijke balans gunstig zou zijn in termen van transfer. Non-leren komt veel voor met name wat betreft 'leren leren', wat de twijfels betreffende de andere leeruitkomsten weer versterkt. De bevindingen wijzen er op dat de mate waarin de bestudeerde leeruitkomsten daadwerkelijk gerealiseerd zijn, sterk in twijfel kan worden getrokken. Het wordt echter in principe als winst beschouwd dat 'kennis van de organisatie en het werkproces' ontwikkeld werd door de betrokken leerlingen, ondanks dat dit geen voorgeschreven leeruitkomst was.

Voorals de BOL- en BBL-leerlingen van beide sectoren worden samengevoegd, lijken de verschillen tussen de leerlingen van de verschillende leerwegen te verdwijnen. Vanwege het kleine aantal betrokken leerlingen kunnen we echter geen sterke conclusies trekken over een mogelijk verschil tussen leerwegen op basis van dit onderzoek.

De rol van de BPV in het mbo kan op basis van de bevindingen kritisch bediscussieerd worden. Ten eerste is het daadwerkelijk bieden van een basis voor levenslang leren nog niet in zicht. Hoewel de verwerving van 'kennis van de organisatie en het werkproces' als winst kan worden gezien, is het nog niet vergelijkbaar met 'work process knowledge', wat juist gerelateerd is aan het idee van werknemers die bereid en in staat

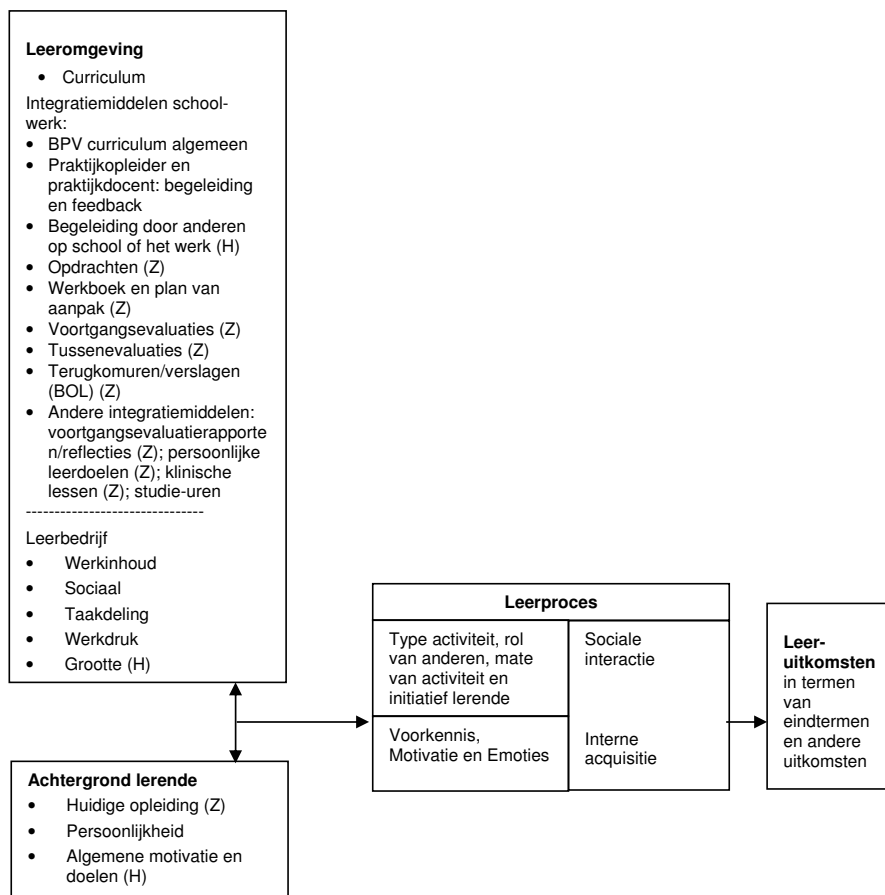
moeten zijn om te leren en nieuwe taken en rollen dienen te vervullen. Ten tweede laten de bevindingen zien dat transfer niet gegarandeerd wordt door het leren op de werkplek in de BPV. Ten derde moeten de integratiemiddelen en het gebruik daarvan sterk verbeterd worden. De vraag over mogelijke verschillen tussen de leerwegen wordt niet opgelost met behulp van de bevindingen van dit onderzoek, misschien vanwege het lage aantal leerlingen. De meningen van praktijkopleiders en praktijkdocenten wat dit betreft bevestigden dat de leerwegen geen fundamenteel verschillende leerlingen opleverden.

Hoewel we erg kritisch zijn over het leerpotentieel van de BPV en eerder onderzoek tevens heeft aangetoond dat (toenmalige) vormen van werkpleklernen gecombineerd met de beroepsopleiding niet ideaal zijn, lijkt de algemene visie op werkpleklernen in het algemeen en de BPV in het bijzonder optimistisch en vol vertrouwen te zijn. De BPV dient echter op zijn minst aanzienlijk te worden verbeterd om dit vertrouwen en een toenemend grote rol te verdienen. Het eerste uitgangspunt voor verbetering zoals uit deze studie blijkt volgt uit de bevestiging van de toegepaste leertheorie. Om de BPV te verbeteren, is het nodig aandacht te schenken aan alle drie de dimensies van leren (de 'driehoek', zie Figuur 1). Het tweede uitgangspunt heeft betrekking op een 'driehoek' op een hoger niveau: de betrokken partijen, te weten de leerling, de school en het leerbedrijf dienen hun verantwoordelijkheid te nemen. Leerlingen moeten in staat en bereid zijn om te leren, en ROCs en hun praktijkdocenten, en leerbedrijven en hun praktijkopleiders moeten de juiste omstandigheden en werk- en leermogelijkheden bieden. Met andere woorden, voor de verbetering van de BPV wordt een systemische aanpak aanbevolen.



Hoewel het mogelijk is om leerprocessen in groter detail te beschrijven dan voor dit onderzoek is uitgevoerd, is het misschien voor de hand liggender om de 'driehoek' toe te passen op het *ontwerpen* van de BPV en daaraan gerelateerd onderzoek uit te voeren. Verschillende studies wijzen uit dat het ontwerpen van werkplekleren in de context van het beroepsonderwijs allerminst eenvoudig is. Daarom is meer onderzoek in deze richting van essentieel belang.

*Figuur 6:* Invloeden op het leerproces in relatie tot het onderzoeksmodel (H = Handel, Z = Zorg)





## References

- Achtenhagen, F., & Grubb, W. N. (2001). Vocational and occupational education: Pedagogical complexity, institutional diversity. In V. Richardson (Ed.), *Handbook of research on teaching* (pp. 604-639). Washington, DC: American educational research association.
- Bailey, T. R., Hughes, K. L., & Moore, D. T. (2004). *Working knowledge. Work-based learning and education reform*. New York and London: Routledge Falmer.
- Berings, M. G. M. C., & Doornbos, A. J. (2003). Exploring instruments mapping workplace learning processes. In *Proceedings book vi: Theme 8: Learning and learners at work. Work and lifelong learning in different contexts. Proceedings of the 3rd international conference of researching work and learning*. (pp. 48-58). Tampere: University of Tampere.
- Berings, M. G. M. C., Gelissen, J. P. T. M., & Poell, R. F. (in press). What and how do nurses learn on the job? Similarities and differences among nurses in on-the-job learning. In S. Sambrook & J. Stewart (Eds.), *HRD in the public sector: The case of health and social care*. London: Routledge.
- Biemans, H., Nieuwenhuis, A. F. M., Poell, R. F., Mulder, M., & Wesselink, R. (2004). Competence-based vet in the Netherlands: Background and pitfalls. *Journal of Vocational Education and Training*, 56(4), 523-528.
- Billett, S. (1996). Situated learning: Bridging sociocultural and cognitive theorising. *Learning and instruction*, 6(3), pp. 263-280.
- Billett, S. (2001). *Learning in the workplace: Strategies for effective practice*. Crows Nest: Allen & Unwin.
- Blokhuis, F. T. L. (2006). *Evidence-based design of workplace learning*. Enschede: Universiteit Twente.
- Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality and Quantity*, 36(4), pp. 391-409.
- Bolhuis, S. M. (2003). Leren in de beroepspraktijk. *Onderwijs en gezondheidszorg* (27), pp. 3-8.
- Bolhuis, S. M., & Simons, P. R.-J. (1999). *Leren en werken*. Deventer: Kluwer.
- Bolhuis, S. M., & Simons, P. R.-J. (2001). Naar een breder begrip van leren. In J. Kessels & R. Poell (Eds.), *Human resource development: Organiseren van het leren* (pp. 37-51): Samsom.
- Boreham, N. (2002). Work process knowledge, curriculum control and the work-based route to vocational qualifications. *British journal of educational studies*, 50(2), pp. 225 - 237.
- Boreham, N. (2004). Orienting the work-based curriculum towards work process knowledge: A rationale and a German case study. *Studies in continuing education*, 26(2), pp. 209-227.
- Brandsma, T. F., & Nijhof, W. J. (1999). Bridging the skills gap: The search for powerful skills, tools and techniques. In W. J. Nijhof & J. Brandsma (Eds.), *Bridging the skills gap between work and education* (pp. 1-15). Dordrecht: Kluwer academic publishers.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (1999). *How people learn: Brain, mind, experience, and school*. Washington, D.C.: National Academy press.
- Casey, C. (1999). The changing contexts of work. In D. Boud & J. Garrick (Eds.), *Understanding learning at work* (pp. 15-28). London: Routledge.
- Colley, H., Hodkinson, P., & Malcolm, J. (2003). *Informality and formality in learning*. London: Learning and skills research centre.

- Commissie Kwalificatiestructuur. (1996). *Gekwalificeerd voor de toekomst. Kwalificatiestructuur en eindtermen voor verpleging en verzorging*. Zoetermeer/Rijswijk: Ministerie van OCW en Ministerie van VWS.
- De Jong, M. (1998). Gestructureerd werkplekopleiden in verpleeghuis heeft effect. *Opleiding & ontwikkeling*, 11(3), pp. 23-26.
- De Raad, B., & Schouwenburg, H. C. (1996). Personality in learning and education: A review. *European journal of personality*, 10, pp. 303 - 336.
- De Vries, B., & Meijer, K. (1983). *Werkend leren in het beroeps onderwijs*. Nijmegen: Instituut voor Toegepaste Sociologie.
- Dehnbostel, P., & Dybowski, G. (2001). Company-based learning in the context of new forms of learning and differentiated training paths. In P. Descy & M. Tessaring (Eds.), *Training in Europe. Second report on vocational training research in Europe 2000: Background report, volume 1 (cedefop reference series)* (pp. 391-429). Luxembourg: Office for official publications of the European Communities.
- Den Boer, P. R., & Jellema, M. (2002). *Duaal of niet dual, is dat de kwestie? [dualisation of vet or no dualisation of vet, is that the question?]*. Wageningen: Stoas Onderzoek.
- Doornbos, A. J. (2006). *Work-related learning at the Dutch police force*. Apeldoorn: Politieacademie.
- Eraut, M. (2000). Non-formal learning, implicit learning and tacit knowledge in professional work. In F. Coffield (Ed.), *The necessity of informal learning* (pp. pp. 12-31). Bristol: The policy press.
- Eraut, M. (2004). Transfer of knowledge between education and workplace settings. In H. Rainbird, A. Fuller & A. Munro (Eds.), *Workplace learning in context* (pp. 201-221). London: Routledge.
- Eraut, M., Alderton, J., Cole, G., & Senker, P. (1998). *Development of knowledge and skills in employment*. Brighton: University of Sussex Institute of Education.
- Evans, K., & Rainbird, H. (2002). The significance of workplace learning for a "learning society". In K. Evans, P. Hodgkinson & L. Unwin (Eds.), *Working to learn* (pp. 7-28). London: Kogan page.
- Fuller, A., & Unwin, L. (2002). Developing pedagogies for the contemporary workplace. In K. Evans, P. Hodgkinson & L. Unwin (Eds.), *Working to learn* (pp. 95-111). London: Kogan page.
- Furnham, A. (1992). *Personality at work: The role of individual differences in the workplace*. London: Routledge.
- Gielen, E. (1995). *Transfer of training in a corporate setting*. Enschede: Universiteit Twente.
- Guile, D., & Young, M. (2003). Transfer and transition in vocational education: Some theoretical considerations. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing* (pp. 63-81). Amsterdam: Pergamon, Elsevier Science.
- Heijke, H. (2001). *De web tussen vraag en aanbod*. Zoetermeer: Stuurgroep evaluatie WEB.
- Hofstee, W. K. B., & De Raad, B. (1991). Persoonlijheidsstructuur: De ab5c-taxonomie van Nederlandse eigenschapstermen. *Nederlands tijdschrift voor de psychologie* (46), pp. 262-274.
- Huys, R., & Hootegeem, G. v. (2002). A delayed transformation? Changes in the division of labour and their implications for learning opportunities. In N. Boreham, R. Samurçay & M. Fischer (Eds.), *Work process knowledge* (pp. 183 - 200). London: Routledge.
- Illeris, K. (2002). *The three dimensions of learning*. Frederiksberg: Roskilde University Press.

- Illeris, K. (2003). Workplace learning and learning theory. *Journal of workplace learning*, 15(4), pp. 167-178.
- Illeris, K. (2004). *Adult education and adult learning*. Frederiksberg: Roskilde University Press.
- Illeris, K., & Associates. (2004). *Learning in working life*. Frederiksberg: Learning Lab Denmark (Kopenhagen), Roskilde University Press.
- Jensen, K., & Lahn, L. (2005). The binding role of knowledge. An analysis of nursing students' knowledge ties. *Journal of education and work*, 18(3), pp. 307-322.
- Jonker, N. (2001). *Job performance and career prospects of auditors*. Amsterdam: Thela Thesis.
- Kennedie, H. W. R. (2005). *Waarde, waardering, waardigheid. Hospitality care en de toekomst van de Nederlandse verpleeghuiszorg*. Amersfoort: Golden Tulip Hotels, Inns & Resorts.
- Kolb, D. A. (1984). *Experiential learning. Experience as the source of learning and development*. Englewood Cliffs, N. J.: Prentice-Hall.
- Krathwohl, D. R. (1998). *Methods of educational and social science research: An integrated approach*. New York: Longman.
- Kroft, G. v. d. (2002). *Competenties toetsen concreet: Voorbeelden van (proef)competentietoetsen niveau 1 en 2 vmbo/mbo (ontwikkeld in het project 'baanbreker')*. Arnhem: Citogroep.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Marsick, V. J., & Volpe, M. (1999). The nature of and need for informal learning. *Advances in developing human resources* (3), 1-9.
- McInerney, D. M. (2005). Educational Psychology - theory, research, and teaching: A 25-year retrospective. *Educational Psychology*, 25(6), pp. 585-599.
- Medley, D. M. (1982). Systematic observation. In H. E. Mitzel, J. Hardin Best & W. Rabinowitz (Eds.), *Encyclopedia of educational research* (Vol. 4, pp. 1834 - 1851). New York: Collier Macmillan.
- Meijer, P. C., Verloop, N., & Beijaard, D. (2002). Multi-method triangulation in a qualitative study on teachers' practical knowledge: An attempt to increase internal validity. *Quality and Quantity*, 36(2), pp. 145-167.
- Merriam, S. B., & Caffarella, R. S. (1999). *Learning in adulthood: A comprehensive guide*. San Francisco: Jossey-Bass publishers.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks: Sage publications.
- Morissette, A. (Artist). (1995). *You learn* [Song].
- Nadler, L., & Wiggs, G. D. (1986). *Managing human resource development*. San Fransisco: Jossey-Bass.
- Nieuwenhuis, A. F. M. (1991). *Complexe leerplaatsen in school en bedrijf*. Groningen: RuG/RION.
- Nieuwenhuis, A. F. M. (2001). *Kwaliteit getoetst in de bve*. Zoetermeer: Stuurgroep evaluatie WEB.
- Nieuwenhuis, A. F. M. (2006). *Vernieuwend vakmanschap. Een drieluik over beroepsonderwijs en innovatie. Rede ter aanvaarding van de bijzondere leerstoel "effectiviteit van systemen voor beroepsonderwijs, volwasseneneducatie en leven lang leren"*. Enschede: Universiteit Twente.

- Nijhof, W. J. (1993). Inleiding en rationale. In W. J. Nijhof, H. A. M. Franssen, W. T. J. G. Hoeben & R. G. M. Wolbert (Eds.), *Handboek curriculum. Modellen, theorieën, technologieën* (pp. 13 - 31). Lisse: Swets & Zeitlinger.
- Nijhof, W. J. (2000). *Levenslang beroepsbekwaam*. Amsterdam: Max Goote kenniscentrum voor Beroepsonderwijs en Volwasseneneducatie.
- Nijhof, W. J. (2006). *Het leerpotentieel van de werkplek. Afscheidsrede 29 september 2006 vanwege het emeritaat aan de Universiteit Twente*. Enschede: Universiteit Twente.
- Nijhof, W. J., & Van Esch, W. (2004). *Unravelling policy, power, process and performance*. Den Bosch: Cinop.
- Nijman, D. J. J. M. (2004). *Supporting transfer of training. Effects of the supervisor*. Enschede: Universiteit Twente.
- Noß, M. (2000). *Selbstgesteuertes lernen am Arbeitsplatz*. Wiesbaden: Deutscher Universitäts-Verlag.
- OECD. (1996a). *The knowledge-based economy*. Paris: OECD.
- OECD. (1996b). *Lifelong learning for all*. Paris: OECD.
- Onstenk, J. (1997). *Lerend leren werken*. Delft: Eburon.
- Onstenk, J. (2003a). *Werkplekleren in de beroepsonderwijskolom*. Den Haag: Onderwijsraad.
- Onstenk, J. (2003b). Comments on adaptation of p. 296-297 of Onstenk, 1997 (email communication).
- Payne, J. (2000). The unbearable lightness of skill: The changing meaning of skill in UK policy discourses and some implications for education and training. *Journal of Education Policy*, 15(3), pp. 353-369.
- Perkins, D. N., & Salomon, G. (1989). Are cognitive skills context-bound? *Educational Researcher*, 18(1), pp.16-25.
- Poell, R. F., Van Dam, K., & Van den Berg, P. T. (2004). Organising learning in work contexts. *Applied Psychology*, 53(4), pp. 529-540.
- Resnick, L. B. (1987). Learning in school and out. *Educational Researcher*, 16(9), pp. 13-20.
- Ritzen, H. (2004). *Zinvolle leerwegen*. Soest: Nelissen.
- Säljö, R. (2003). Epilogue: From transfer to boundary-crossing. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing* (pp. 311-321). Amsterdam: Pergamon, Elsevier Science.
- Saylor, J. G., Alexander, W. M., & Lewis, A. J. (1981). *Curriculum planning for better teaching and learning*. New York: Holt, Rinehart and Winston.
- Schoenfeld, A. H. (1999). Looking toward the 21st century: Challenges of educational theory and practice. *Educational Researcher*, 28(7), pp. 4-14.
- Schunk, D. H. (2004). *Learning theories: An educational perspective*. Upper Saddle River: Pearson/Merril/Prentice Hall.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27(2), pp. 4-13.
- Shuell, T. J. (1986). Cognitive conceptions of learning. *Review of educational research*, 56(4), 411-436.
- Silverman, D. (2000). Analyzing talk and text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 821-834). Thousand Oaks: Sage publications.
- Smith, P. J. (2003). Workplace learning and flexible delivery. *Review of educational research*, 73(1), pp. 53-88.
- Snippe, J. (2006, November 4<sup>th</sup>). Leren in de praktijk, dat werkt. *de Volkskrant*.
- Stake, R. E. (2000). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 435-454). Thousand Oaks: Sage publications.

- Straka, G. A. (2004). *Informal learning: Genealogy, concepts, antagonisms and questions*: Forschungsberichte 15, Institute technology and education, Universität Bremen.
- Streumer, J., & Van der Klink, M. (2004). De werkplek als leersituatie. In J. Streumer & M. v. d. Klink (Eds.), *Leren op de werkplek* (pp. 11-32). 's-Gravenhage: Reed Business Information.
- Stuurgroep evaluatie WEB. (2001). *De web: Naar eenvoud en evenwicht*. Zoetermeer: Stuurgroep evaluatie WEB.
- Swanborn, P. G. (1996). A common base for quality control criteria in quantitative and qualitative research. *Quality & Quantity* (30), 19-35.
- Tennant, M. (1999). Is learning transferable? In D. Boud & J. Garrick (Eds.), *Understanding learning at work* (pp. 165-179). London: Routledge.
- Thorndike, E. L., & Woodworth, R. S. (1901). The influence of improvement in one mental function upon the efficiency of other functions. *Psychological Review*, 8, 247-261.
- Tjepkema, S., & Wognum, A. A. M. (1999). Human resource development in a corporate setting from an organizational point of view. In A. J. Visscher (Ed.), *Managing schools towards high performance* (pp. 245-287). Lisse: Swets & Zeitlinger.
- Tuomi-Gröhn, T. (2003). Developmental transfer as a goal of internship in practical nursing. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing* (pp. 199-231). Amsterdam: Pergamon, Elsevier Science.
- Tuomi-Gröhn, T., & Engeström, Y. (2003). Conceptualizing transfer: From standard notions to developmental perspectives. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing* (pp. 19-37). Amsterdam: Pergamon, Elsevier Science.
- Tuomi-Gröhn, T., Engeström, Y., & Young, M. (2004). From transfer to boundary-crossing between school and work as a tool for developing vocational education: An introduction. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing* (pp. 1-14). Amsterdam: Pergamon, Elsevier Science.
- Van den Akker, J. (2003). Curriculum perspectives: An introduction. In J. Van den Akker, W. Kuiper & U. Hameyer (Eds.), *Curriculum landscapes and trends* (pp. 1-10). Dordrecht: Kluwer academic publishers.
- Van der Klink, M. (1999). *Effectiviteit van werkplek-opleidingen*. Enschede: Universiteit Twente.
- Van der Sanden, J. (1997). Beroepspraktijkvorming: Een onderwijspsychologisch perspectief. *Opleiding en ontwikkeling*, 3, pp. 7-10.
- Van der Sanden, J., & Teurlings, C. (2003). Developing competence during practice periods: The learner's perspective. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing*. (pp. 119-138). Amsterdam: Pergamon, Elsevier Science.
- Van Wieringen, F., & Attwell, G. (1999). Vocational and adult education in Europe. In F. Van Wieringen & G. Attwell (Eds.), *Vocational and adult education in Europe* (pp. 1-17). Dordrecht: Kluwer academic publishers.
- Van Woerkom, M. (2003). *Critical reflection at work. Bridging individual and organisational learning*. Enschede: Universiteit Twente.
- Wenger, E. C. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.

- Yin, R. K. (1984). *Case study research: Design and methods*. Beverly Hills, CA: Sage publications.
- Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage publications.



## Appendices

### *Appendix I: Attainment targets and other learning outcomes*

#### Appendix Ia: Attainment targets and clusters for the basic phase<sup>1</sup>

Attainment targets are presented as formulated in the students' assignment books. Numbers between brackets correspond with the official number of the attainment target. At the time of the study the ROC was in the process of developing competence-based learning outcomes. Competence descriptions are perceived as definitions of demonstrated behaviour related to content, context, skills, knowledge, personal characteristics, and the criteria according to which competent behaviour can be assessed (Kroft, 2002). Competences should be viewed as broader than skills or knowledge alone and students should show that they have mastered them, in context. Although attainment targets are a step ahead in the process of developing competence-based learning outcomes as compared to former outcome prescriptions, the targets do not yet entirely meet the criteria of competence formulations. In the WEB attainment targets are defined as “qualities regarding knowledge, insight and skills and, if applicable, occupational attitudes which the graduate should have at his disposal for the purpose of societal and occupational functioning, and which may have significance for moving on to continuing education (article 7.3.1 of the WEB)”. The difference between this and the competence definition that the institution aims to implement seems to be that demonstrated behaviour is emphasised in the competence definition and that “should have at his disposal” is used in the attainment target description.

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<sup>1</sup> <http://www.ovdb.nl/pdf.php?id=1984> Retrieved May 14<sup>th</sup>, 2006.

Table 1: Attainment targets related to the clusters to be realised during WPL in the basic phase

Cluster	Attainment targets in assignment book
Planning of care (301) <sup>2</sup>	<ol style="list-style-type: none"> <li>1. (01) The graduate should be able to describe in which situation support with basic care and domestic care is given.</li> <li>2. (02) The graduate is able to estimate a resident's need for care.</li> <li>3. (03) "... " formulate a care plan on the basis of standard lists (e.g. protocol).</li> <li>4. (04, 06) "... " signal and report; signal changes in need for care; coherent reporting of information about need for care.</li> <li>5. (05) "... " evaluate a care plan.</li> </ol>
Domestic care and care of housing conditions (202)	<ol style="list-style-type: none"> <li>1. (01, 06) planning domestic tasks and taking into account the abilities of the resident and his/her family or residents of the same group.</li> <li>2. (02, 03, 06) keeping the residents housing conditions clean; taking care of an attractive environment.</li> <li>3. (04, 06) taking care of nourishment; while applying the regulations i.e.: working hygienically, safely, ergonomically safely, environmentally safely and efficiently.</li> <li>4. (05, 06) taking care of clothing and footwear; while applying the regulations i.e.: working hygienically, safely, ergonomically safely, environmentally safely and efficiently.</li> <li>5. (06, 07) taking over self-care concerning domestic care of residents partly or entirely; while applying the regulations i.e.: working hygienically, safely, ergonomically safely, environmentally safely and efficiently.</li> </ol>
Basic care (302)	<p>Guidance (12) and 'generic' (14) are recurring targets within the assignments.</p> <ol style="list-style-type: none"> <li>1. (06, 12, 14) making the bed.</li> <li>2. (02, 12, 14) personal basic care.</li> <li>3. (03, 12, 14) nutrition and fluid balance.</li> <li>4. (04, 12, 14) support with excretion.</li> <li>5. (08, 12, 14) sleep and waking balance.</li> <li>6. (05, 12, 14) support with mobility problems.</li> <li>7. a. (12, 14) guidance.</li> <li>7. b. (12, 14) serious suffering, passing away and mourning, also regarding resident's family.</li> <li>8. (12, 13) communication.</li> <li>9. (07, 12, 14) guarding vital functions.</li> <li>10. (09, 12, 14) taking care of a resident's medicine use. The institution chooses whether this assignment is completed in the basic or in the main phase.</li> <li>11. (10, 12, 14) wound care.</li> <li>12. (11, 12) unexpected situations and accidents: first aid and reanimation (is simulated at school).</li> <li>13. (01, 05) basic care.</li> </ol>
Prevention and health information & education I (303)	<ol style="list-style-type: none"> <li>1. (01) being able to describe the meaning of prevention and health information.</li> <li>2. (02) application of primary prevention (providing health info to residents and family, taking action for a safe environment).</li> <li>3. (03) "... " secondary prevention (observing disorder symptoms, reporting outcomes, discussing outcomes with resident).</li> <li>4. (04) "... " tertiary prevention (signal reactions to resident's disorders, advising about adjustments to way of life and such).</li> </ol>

<sup>2</sup> Numbers refer to the official, national attainment target clusters.

Table 1: Attainment targets related to the clusters to be realised during WPL in the basic phase (Continued)

Cluster	Attainment targets in assignment book
Interaction in occupational situations (204) - residents	<p>The qualification structure includes six attainment targets for interaction in occupational situations (see also next row). All targets need to be applied in integration with all of the assignments because occupational attitude is always important. However, there is also a separate main assignment regarding these attainment targets in the assignment book.</p> <ol style="list-style-type: none"> <li>1. (01) recognising a functional cooperative relationship with residents and their family (interest, listening, asking questions, providing information).</li> <li>2. (02) respectful communication (reacting seriously, having resident make own choices, taking enough time).</li> <li>3. (02) maintaining independence, autonomy and responsibility.</li> <li>4. (02) showing respect.</li> <li>5. (01 and 02) maintaining functional cooperation with the resident.</li> </ol>
Interaction in occupational situations (204) - colleagues	<ol style="list-style-type: none"> <li>1. (03) integrating 'acting functionally' in performance, for example guarding own limits and respecting professional secrecy.</li> <li>2. (04) integrating 'assertivity' in performance, for example expressing own opinion or negotiating with colleagues, superiors and residents.</li> <li>3. (05) 'being comradely towards colleagues', for example working together, dealing with feedback and appreciation.</li> <li>4. (03) keeping work and private matters separate.</li> </ol>
Generic	Working hygienically, safely, ergonomically safely, environmentally safely and efficiently



### ***Appendix Ib: Modified Attainment targets and other learning outcomes***

We focus on four learning outcomes that are considered especially relevant. These are the attainment target ‘personal basic care’ and the attainment target cluster of ‘interaction’, and the ‘other’ learning outcomes ‘learning to learn’ and ‘knowledge of the organisation and work process’. Most of the time in a normal working day is dedicated to personal basic care. Interaction with residents and with colleagues is viewed as very important in the Care context. Students need to report, confer, present, and communicate with residents as part of their job. However, interaction skill is also required in relation to all of the specific attainment targets.

Although ‘learning to learn’ is not an attainment target for the basic phase, it is described as a general goal of WPL, together with applying theory to practice. Learning to learn at the workplace is an important goal related to the learning potential of the workplace and to the lifelong learning strategy for which VET could provide a basis (see Chapter 1). Some students showed insight in their training company, its work processes, and the ‘why and how’ of their job that is not explicitly included in the attainment target clusters. We have therefore included ‘knowledge of the organisation and work process’ as a learning outcome. In comparison, the concept of ‘work process knowledge’ (Boreham, 2002, p. 232) refers to “an employee’s knowledge of the work process in the enterprise as a whole, including the labour process, the production process and the way in which the various departments and functions are interrelated”. Work process knowledge appears to be important in relation to the trends of the present competitive economy, as sketched in Chapter 1. We therefore aim to analyse to what extent students’ ‘knowledge of the organisation and work process’ is indeed comparable with ‘work process knowledge’. Both in the basic care attainment target cluster and at the end of the attainment target list, ‘working hygienically’, ‘working safely’, ‘working ergonomically safely’, ‘working environmentally safely’, and ‘working efficiently’ are included as generic standards that students need to apply during their work. The extent to which students were observed to apply these standards serves to help determine at which level of De Jong (see 4.3.4) learning outcomes were realised.

- Personal basic care  
From the basic care attainment target cluster (see Appendix Ia). Personal basic care concerns the targets of:
  - (2) Providing help with clothing and getting undressed; providing help with bathing; providing help with care for appearance and by using aids; taking measures to prevent complications as a result of long-term inactivity or being bedridden; and applying the relevant regulations.
  - (12) Providing guidance to residents, regarding autonomy, change, grief and such. However, the assignment in the students’ book appears to be focused more on target 2 than on target 12. The data agree with this focus.

- (14) generic standards (working hygienically, etc.)
- Interaction with residents and colleagues  
The qualification structure includes six attainment targets for interaction in occupational situations. In the students' assignment book, this is divided into 'interaction with residents' and 'interaction with colleagues'. The targets need to be applied in integration with all of the assignments because occupational attitude is always important. However, there is also a separate main assignment in the assignment book. We discuss 'interaction with residents and colleagues' as one learning process, taking into account the possible difference in focus regarding residents or colleagues.
- Learning to learn  
In the workbook, learning to learn for students is described as "developing the ability to reflect on their own learning process and to relate this to conclusions for future learning processes". Thinking and acting, reflection and trying out should be varied in this process.
- Knowledge of the organisation and work process  
Knowledge of the training company, work processes, the 'why and how' of the job, and the way in which different tasks and roles are related. This learning outcome is comparable with the concept of 'work process knowledge' (Boreham, 2002). Criteria for work process knowledge are that it refers to knowledge of the work process in the enterprise as a whole, is essential for the work being performed in the domain in question, is constructed while engaged in work, and that it is a synthesis of theoretical (also knowledge that has been developed at school) and experiential knowledge (Boreham, 2004).

Aspects of the attainment targets that are not included in the four learning outcomes of focus (see Appendix Ia), are discussed in relation to 'knowledge of the organisation and work process' if relevant. For example, when a student talks about a resident with diabetes who needs to eat soon after having had an injection, this concerns the attainment targets medicine and nutrition and fluid balance. However, at another level the student relates different aspects of the work process together and knows what consequences ill-timed feeding will have for this resident. Such accounts are therefore related to 'knowledge of the organisation and work process'.

## ***Appendix II: Questionnaire***

### *Approach*

At the start of the study, the students were asked whether they had sufficient access to the internet and email to be able to fill out the questionnaires online, which they all did. The link to the specific questionnaire was sent to the students by email (SurveyMonkey software: <http://www.surveymk.com/>). This email included a short instruction regarding the considered WPL period, the time required to complete the questions, the deadline for completion, the date and time at which the next interview would take place, and the researcher's contact details in case of questions.

In the questionnaire the regarded period and the completion deadline were repeated. A brief instruction about filling in the questions was also included, regarding the number of questions, what to do when the questionnaire could not be completed at once, and that each question required an answer. To avoid non-response as a result of negligence, a pop-up would appear when students had forgotten to fill out any of the questions. This means they could not continue or finish until all the questions had been answered. Two of the researcher's colleagues with experience with working in a shop from former sidelines were asked in advance to comment on the content of the questionnaire in terms of applicability and comprehensibility; and tested the technical functioning at the same time. Especially technical functioning of the questionnaire in terms of a pop-up for any question that was 'forgotten', being able to quit the questionnaire halfway and to continue with the same question later, and clarity and brevity of the instruction, were adjusted based on their comments. The procedure and design of the questionnaire was also explained face-to-face with the students in advance, to make sure that they would be able to complete the questionnaire in the right way by the deadline.

### *Content*

To be able to link data of the same case, students were first asked to fill in their name. Further questions of the first questionnaire (translated from Dutch) are:

- 2) Which tasks did you carry out in the period from March 29<sup>th</sup> to mid-April? State five at most. Examples: inventory; handling customer complaints; making out the cash register; cleaning up.

*All fields need to be filled in. If you want to state fewer than five tasks, use a '-' for the remaining fields. If you have more than five, select the most important ones. Further questions are asked about the tasks you have filled in here. Please note them, therefore, to avoid having to return to the current page while completing the subsequent questions.*

1. ....
2. ....
3. ....
4. ....
5. ....

- 3) Describe the most important steps of which the stated tasks consist. *Multiple steps can be distinguished by a '-'. The program allows you to continue writing even if the field seems full.*
- 4) State what material you used for the tasks. Examples are: no material; shelf-plan; cash register; promotion plan.
- 5) Indicate what you already knew about each task in advance:

<i>(only one answer possible)</i>	Nothing	A little	Enough	I don't know	No answer
Task 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 6) Indicate whether you were helped and by whom. *More than one box can be ticked.*

<i>(more than one answer possible)</i>	Mainly self	Helped by mentor	Helped by (other) colleague	Helped by other student	Other	I don't know	No answer
Task 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Task 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Task 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Task 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Task 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 7) How did you like each task?

<i>(only one answer possible)</i>	I didn't like it	Neutral	I liked it	I don't know	No answer
Task 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 8) How difficult did you find each task?

<i>(only one answer possible)</i>	Easy	Neutral	Difficult	I don't know	No answer
Task 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 9) How interesting did you find each task?

<i>(only one answer possible)</i>	Boring	Neutral	Interesting	I don't know	No answer
Task 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Task 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10) How time-consuming did you think each task was?

<i>(only one answer possible)</i>	Took little time	Neutral	Took a lot of time	I don't know	No answer
Task 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11) How hard (*physically*) did you find each task?

<i>(only one answer possible)</i>	Not hard	Neutral	Hard	I don't know	No answer
Task 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Task 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12) If you completed any assignments between March 29<sup>th</sup> and mid-April, please note here. If you did not complete any assignments, use a '-'. *Note the assignment numbers concerning the cluster of attainment targets and the page in the assignment book. Example: 301 (managing): assignment 1.1.4 p. 9-11*

I worked on the following assignments:

- 301 (managing): .....
- 302 (presentation and promotion): .....
- 401 (personnel): .....
- 402 (retail marketing): .....
- 403 (management of branch): .....
- other, namely: .....

13) Please note other comments about the WPL period from March 29<sup>th</sup> to mid-April. You can also provide comments on the questionnaire:

No comments

Comments: .....

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In the second questionnaire, students are first asked which other tasks they have carried out in relation to the tasks stated in Q1. The subsequent questions are the same regarding questions 3 to 11. The question about material was omitted in Q2, because

material turned out to be either obvious or was included in the steps in the question following the question about tasks. Other questions in Q2 where:

11) This question concerns your entire WPL period since you started in the current training company. Pick a situation that made a great impression on you. It may concern something difficult or annoying or something you really liked, for example. Describe this situation from work in a few sentences:

.....  
 .....

12) This question concerns the assignments. Select one assignment on which you worked during the WPL period from March 29<sup>th</sup> of this year (2005). This should be an assignment you found very hard, annoying or really enjoyable. For example, an assignment that took a lot of time and energy. State the number of the cluster of attainment targets, the assignment number and the page on which the assignment can be found. Example: 302 – assignment 3.3, p.36. Also state *why* you selected this assignment.

13) Please note other comments about the WPL period from mid-April to mid-May. You can also provide comments on the questionnaire:

No comments

Comments: .....

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Thank you very much!

Thank you for completing the questionnaire. Please do not forget to push 'done' below! We will see each other at the next interview. Please do not forget to confirm our appointment, if you have not done so yet.

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### ***Appendix III: Learning outcomes in Retail***

Attainment targets (translated from Dutch) in Table 1 are presented as provided in the students' WPL assignment booklets regarding the clusters of attainment targets involved<sup>3</sup>. The other attainment targets of the clusters presented are not dealt with during WPL; they are only assessed in theory examinations at school. As a generic attainment target, students also need to be able to apply the correct occupational attitude (independence, inquisitiveness, and such).

Table 1: *Attainment targets related to the clusters to be realised during the WPL period studied*

Cluster	Attainment targets
Managing (301) - Work schedule	10. The graduate is able to formulate a work schedule.
	11. The graduate is able to formulate the allocation of a work activity based on the work schedule.
Presentation and promotion (I) (203) - shop exterior	1. The graduate is able to build a 'front presentation'.
	2. The graduate is able to build a temporary presentation of products in a shop.
	3. The graduate has insight into the relation between the shop formula and a price tag or text tag.
	4. The graduate is able to make price tags or text tags.
Presentation and promotion (II) (302) - Promotion and shop management	5. The graduate is able to formulate a 'front presentation plan'.
	6. The graduate is able to formulate a plan for the temporary presentation of products.
	7. The graduate is able to organise promotional activities.
	8. The graduate is able to select promotional material.
	9. The graduate is able to formulate a suggestion for a cleaning plan.
	10. The graduate is able to formulate a suggestion for a shoplifting prevention plan.
Retail trade personnel (401)	11. The graduate is able to realise the objectives of a prevention plan for loss.
	2. The graduate is able to formulate a staffing plan.
	9. The graduate is able to formulate an introductory programme for new employees.
	6. The graduate is able to select job applicants.
	7. The graduate is able to conduct job interviews.
	12. The graduate is able to have formal discussions with the employees.
	16. The graduate is able to participate actively in formal work meetings.
	17. The graduate is able to organise formal work meetings.
18. The graduate is able to direct work discussions.	

<sup>3</sup> Retail is part of the same ROC as Care, and is therefore also in the process of realising competence-based education, but had not yet done so at the time of the study: see Appendix I.

Table 1: *Attainment targets related to the clusters to be realised during the WPL period studied (Continued)*

Cluster	Attainment targets
Retail trade marketing (402)	1. The graduate is able to carry out all phases of small-scale marketing research.
	2. The graduate is able to draw conclusions based on marketing research data.
	4. The graduate is able to formulate a proposal for a service policy.
	5. The graduate is able to formulate a proposal for a complaints policy.
	6. The graduate is able to formulate a proposal for bringing the shop's exterior in line with the shop formula.
	7. The graduate is able to formulate a proposal for shop routing.
	8. The graduate is able to formulate a proposal for interior decoration.
	9. The graduate is able to formulate a proposal for product presentation planning.
	10. The graduate is able to formulate a proposal for a promotional plan.
	11. The graduate is able to formulate a commercial.
	12. The graduate is able to organise the distribution of a commercial.
	13. The graduate is able to formulate a proposal for a public relations activity.
	14. The graduate is able to assess a catchment area.
	15. The graduate is able to assess the place of business.
	16. The graduate is able to assess a suitable location.
	17. The graduate is able to formulate a proposal for drawing up a maintenance plan.

While presentation and promotion I is more concerned with the basic presentation of products and some marketing concepts, presentation and promotion II is more concerned with the broader concepts of presentation and the relation with house style and marketing.

Grading takes place in agreement with the decimal system: 1-5 is unsatisfactory; 5.5 or 6 is satisfactory; 7 is more than satisfactory; 8 is good, 9 is very good and 10 is outstanding

