

# Exploring the relation between work domains and work-related learning: the case of the Dutch police force

Anja J. Doornbos, S. Bolhuis and  
E. Denessen

*The principal aim of this study is to explore the relations between work domains and the work-related learning of workers. The article is intended to provide insight into the learning experiences of Dutch police officers during the course of their daily work. Interviews regarding actual learning events and subsequent changes in knowledge, skills or attitudes were conducted with police officers from different parts of the country and at different stages of their careers. Interpretative analyses grounded in the notion of intentionality and developmental relatedness revealed how and in what kinds of work domains police officers appear to learn. Homogeneity analysis use of Alternating Least Squares (HOMALS) analysis showed work-related learning activities to vary with different kinds of work domains. The implications for training and development involve the role of colleagues in different hierarchical positions for learning and they also concern the utility of the conceptualisation of work-related learning presented here.*

## Introduction

Training and development in general and work-related learning in particular are vital for employees to be able to respond to the changing work demands imposed by the market and society. Knowledge is ephemeral, and in constant need of revision and

---

□ Anja J. Doornbos, S. Bolhuis and E. Denessen University of Nijmegen, Department of Pedagogical Sciences and Education, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands. E-mail: [ajdoornbos@tiscali.nl](mailto:ajdoornbos@tiscali.nl)

updating (Dixon, 1994), which means that employees must learn continuously and organisations must stimulate the ability of individuals, groups and the organisation as a whole to learn. People and organisations must be highly adaptable and continue to improve if they want to prosper in such 'permanent white water', which is the metaphor used by Vail (1996) to express the idea of continuous environmental turbulence.

One group of employees that has to deal with changing work demands as a result of diverse economic, social and cultural developments is the police force. The 24-hour economy, multicultural society and the globalisation of criminality, for example, have greatly affected police functioning by making police work more diverse and complex. In addition, new ideas regarding good police work, such as community policing and zero tolerance, have influenced the day-to-day practices of police officers. Gutierrez and Thurman (1997) have argued that police job descriptions have shifted from reactive styles of policing based on the traditional patrol model to proactive styles. The Dutch police force consists of 25 independent agencies and relies on a nationally organised training programme for its education.

Recognition of the importance of the workplace as a learning environment has recently grown in the training and development literature (Bolhuis and Simons, 1999; Eraut, 2000; Skule, 2004). The body of empirical literature is less profound (Eraut *et al.*, 1998; Kwakman, 1999; Sonnentag and Kleine, 2000; Woerkmom, 2003). And attention to the nature of learning that occurs without the involvement of educational providers at work has lacked researchers' attention even more (Clardy, 2000; Collin, 2004). While it is generally acknowledged that employees learn through experience (Collin, 2004; Cseh *et al.*, 2000), the challenge of the work itself (Eraut *et al.*, 1998), and from other people, an adequate empirical conception of how this type of learning and development occurs is still needed.

Insights into the types of work-related learning as well as its relation to vocational situations may promote greater integration of learning and working in vocational training. The largely informal character and the generally close relation between working and learning make it difficult to separate learning from working (Eraut, 2000). Learning is situated within the activity taking place (Lave and Wenger, 1991). Furthermore, many authors assume that the manner of learning varies with the work situation and that work experiences themselves stand central (Brookfield, 1986; Ellström, 2001; Garrick, 1998; Lave and Wenger, 1991). For managerial jobs, moreover, job transitions and such task-related characteristics as creation of change, high levels of responsibility and non-authority relationships have been identified as critical developmental components (McCauley *et al.*, 1994).

The scholarly dialogue regarding work-related learning and work as a learning environment includes specific job variables such as the access and availability of knowledge, support and opportunities to practice (Ashton, 2004; Skule, 2004) does not always address the relations between learning and domains of vocational situations. In the present study, we therefore questioned the extent to which a relation exists between work domains and types of work-related learning. More specifically, types of work-related learning among Dutch police officers during the course of their daily work and the extent to which such experiences evoke changes in behaviour, skills and attitudes were examined.

### **Intentionality and developmental relatedness in work-related learning**

Police officers and other employees always learn at work. In the present study, we view work-related learning as an integrated process involving the interaction between learners (here: working police officers), their environment and an internal process of inquiry and elaboration leading to a learning result (adopted from Illeris, 2002). More specifically, the interaction process is treated in terms of the 'developmental relatedness' between learners and their interaction partners and the internal psychological process is treated in terms of 'intentionality' (Doornbos *et al.*, forthcoming).

The notion of intentionality in work-related learning refers to whether or not workers are consciously and internally initiated engaged in activities for the purpose of acquiring knowledge, skills or new attitudes. Work-related learning may or may not be intentional as indicated by the work of several authors who have considered related notions (Billet, 1995, 2001; Bolhuis and Simons, 1999; Coffield, 2000; de Jong, 1996; Eraut, 2000; Hodkinson and Hodkinson, 2004; Knowles, 1984; Marsick and Watkins, 1990; McCauley and Hezlett, 2001; Megginson, 1996). That is, the intentionality of a worker to learn can be spontaneous or deliberate (i.e., triggered by working or planned by the worker him/herself). Spontaneous learning can occur during activities with a goal other than learning in mind. This happens when the relevant activity was itself unintended or unplanned or when an activity was planned and intended but not with the explicit intention of learning (Hodkinson and Hodkinson, 2004). The changes in knowledge, skills and attitudes resulting from such activities may then be unexpected and construed as by-products, discoveries, coincidences or (sudden) realisations. Deliberate learning, in contrast, refers to those activities performed with the goal of learning in mind. The resulting changes in behaviour, skills and attitudes are planned, sought, and sometimes even premeditated.

The notion of developmental relatedness refers to how interaction between the learning worker and his/her interaction partner contributes to learning of the learning worker solely or to his/her interaction partner(s) as well. Interaction partners do not necessarily play the explicit role of being a learner or developer; learning outcomes are a result of interactions while working (Marsick and Watkins, 1990). The principle of developmental relatedness stems from social learning and developmental networks theoretical perspectives and point to the significance of social ties for learning (Palonen *et al.*, 2003). The term 'developmental relatedness' is adopted from Kram (1985) and Higgins and Kram (2001), who applied it solely to mentor relations in which psychological or career support was provided. In the present study, the term is applied to characterise the relationship between the individual worker and his or her interaction partner(s), whether as a mentor or not.

Three main categories of work-related learning are distinguished along these lines: 'learning individually', 'learning from others', and 'learning together'. The first type of developmental relatedness is when no direct social interaction resulting in learning occurs. This does not mean that no interaction occurs at all; the interaction by itself does not directly contribute to worker learning. The second type of developmental relatedness happens when workers learn through their interactions with other people and this contributes to their development but not necessarily to the development of others. The third type of developmental relatedness occurs when workers and their interaction partner(s) mutually contribute to each other's learning at the same time and therefore both benefit from the interaction (see also D'abate *et al.*, 2003). A two-way or mutual relation for development thus exists.

For learning from others or learning together, whether the interaction is with people within or outside one's vocation and the interpersonal status of those within are also distinguished to address the diversity of interaction partners people have in work-related learning. Studies on situated learning and socialisation have shown that people outside the primary workplace, such as partners, friends, family members and clients play an important role in work-related learning (Eraut *et al.*, 1998; Palonen *et al.*, 2003; Vandenabeele and Wildemeersch, 1998). They can be an important source of social support, stimulation and affirmation, particularly at the start of workers' careers (Staton and Hunt, 1992). Learning from people outside the profession happens, for example, in the case of the need for critical information for one's work through professional networks, depending highly on personal contacts, and learning from suppliers and customers (Eraut *et al.*, 1998).

Interaction partners within the organisation have different 'relative positions in the social hierarchy' in relation to the employee, and can be higher, equal or lower (Levy *et al.*, 1999, p. 723). Interaction partners with a higher status than the learner him or herself are expected and often found to enhance worker learning simply because they are more knowledgeable (Salomon and Perkins, 1998). Colleagues with an equal sta-

tus and the interactions of a worker with such peers can enhance worker learning through supervision, reflection, discussion and evaluation. Similarly, research has shown that workers often learn from new colleagues or interns (Fuller and Unwin, 2004).

The notion of intentionality and developmental relatedness in work-related learning will be used here as a heuristics device presented in Table 1.

### **Work domains: Core tasks of the Dutch police force**

The Police Academy of the Netherlands utilises four groups of police core tasks for training, which we use to distinguish work domains. The core tasks have been formulated for initial police training and validated by professional practitioners, legitimised by police councils and accepted by police ministers. The core tasks represent the central tasks and problems with which a professional practitioner is regularly confronted: liveability, safety, service and social integrity.

Liveability tasks involve policing the public domain, action during (corporate) crimes against the environment, policing road safety, action during drug-related crimes and higher levels of policing and strategy related to communal safety, socio-psychological problems and action during public disturbances.

Safety tasks involve actions dealing with road accidents, simple violent crimes, property crimes, indecency, disturbance of the peace, actions at the scenes of serious crimes, actions during violations of arms legislation and higher levels of policing related to area-bound criminality, strategy development to reduce violence, theme-based safety and preparation of strategies to handle disasters and calamities.

Service tasks involve public service, treatment of prisoners and higher levels of policing related to participation in quality improvement projects, use and development of the policy cycle and strategic approach to position of police in society.

Social integrity tasks involve policing of events, the conduct of complex road checks, treatment of aliens, juvenile care and higher levels of policing related to high-risk events and road safety.

### **Research questions**

The research questions guiding the present study were as follows:

1. What is the nature of work-related learning for Dutch street police officers in terms of intentionality and developmental relatedness?
2. To what extent do types of work-related learning vary with the work domains for Dutch street police officers?

### **Method**

#### **Setting and participants**

To explore the research questions, interviews were conducted with street police officers working in three different agencies located across the Netherlands. Participation was voluntary and a total of four participated in a pilot study which served to develop the interview strategy and ten officers participated in the main study. The officers were selected by their chief inspectors who were sent a letter which included an overview of the research project and the purpose of the interviews in particular. In Table 2 an overview of the participants who all worked full-time is presented; pseudonyms have been used to preserve anonymity.

#### **Data collection strategy**

A retrospective point of view on learning at work using questions about what a person actually did is more credible than asking what a person might do in the future (Taylor and Small, 2002). It is also frequently held that verbal data have greater validity when based on actual events and changes in behaviour than on hypothetical situations

Table 1: Work-related learning typology and illustrative examples

| Intentionality | Spontaneous               |   |   |  |
|----------------|---------------------------|---|---|--|
|                | Developmental relatedness | Individual                              | From others                                     | Together   |
| Outside        |                           | Indirect interaction or no contribution | Receiving unrequested feedback from client      | Unexpected insights from discussion with external partner        |
| Within-high    |                           | Indirect interaction or no contribution | Dealing with conflict situations with boss      | Understanding each other's interests within working relationship |
| Within-peer    |                           | Indirect interaction or no contribution | Observation of colleagues with a similar job    | Participation in a team  |
| Within-low     |                           | Indirect interaction or no contribution | Questions from an intern which set you thinking | Generation of new ideas for problem solving                      |
| Intentionality | Deliberate                |   |   |  |
|                | Developmental relatedness | Individual                              | From others                                     | Together   |
| Outside        |                           | Indirect interaction or no contribution | Asking advisors in                              | Working together on a multi-disciplinary project                 |
| Within-high    |                           | Indirect interaction or no contribution | Purposeful role modelling                       | Brainstorming within a group of workers of different levels      |
| Within-peer    |                           | Indirect interaction or no contribution | Reflection on work with help of a peer          | Exchange of ideas to solve a problem                             |
| Within-low     |                           | Indirect interaction or no contribution | Asking subordinates for comments                | Group evaluation of a task accomplished together                 |

Table 2: Participant descriptions

| Name  | Age | Tenure | Gender | Job profile  |
|-------|-----|--------|--------|--|
| Bruce | 28  | 3      | Male   | All street work  |
| Bryan | 49  | 29     | Male   | Operational managerial tasks   |
| David | 45  | 23     | Male   | Operational managerial tasks   |
| Jason | 34  | 17     | Male   | Coaching new street officers   |
| Jeff  | 44  | 27     | Male   | Operational managerial tasks   |
| Jim   | 47  | 30     | Male   | Police services resulting from a community and police partnership                    |
| Karen | 41  | 7      | Female | Police services resulting from a community and police partnership and emergency aid. |
| Mike  | 45  | 25     | Male   | All street work and some operational managerial tasks                                |
| Scott | 42  | 25     | Male   | Coaching new street officers   |
| Steve | 32  | 1      | Male   | Restricted street work   |

(Ericsson and Simon, 1984). Three manners of data collection were combined in the present study: observations, field notes and semi-structured interviews. Observations were made over 14 days in which field notes were taken, providing a starting point and clues to help us understand the nature of work-related learning within the context of the Dutch police force (Angrosino and Mays de Pérez, 2000). A semi-structured interview approach was then developed to gain insight into those experiences which appear to evoke and foster police learning. By asking about things which employees do differently, the topic of learning was raised indirectly (Eraut *et al.*, 1998; Kwakman, 1999). The pilot interviews showed direct enquires about learning to prompt reports of formal training and other schooling, which was not the focus of the present study and therefore led to the use of indirect enquiries. The interview included three main parts.

1. Questions regarding the type of knowledge, skills or attitude acquired, relearned or changed (learning outcome).

Sample question: What do you do differently now compared to a few years ago?

2. Questions regarding the type of work situations which contributed to the learning outcome.

Sample questions: Can you describe some situations in which you have found yourself to be more clever, brighter, smarter or wiser? How did you get to be a better policeman? What was your role in the work situation (e.g., personal interest? team learning? guidance?). Who else was responsible for the process of you becoming a better police officer (mentor? self? colleagues? together?). What work-related activities did you perform in relation to the learning outcome?

3. Questions regarding perceptions of how work-related learning can be enhanced.

The information gathered in the first two parts of the interview was taken to be relevant to the present study. Given our interest in the actual experiences of the participants, they were encouraged to relate exactly what happened and to give examples (Kvale, 1996).

### Procedure

Each police officer was interviewed individually by a research duo composed of a female researcher from the university and a male researcher who was also a police officer.<sup>1</sup> We opted for this approach because it enabled 'double' attention to implicit

<sup>1</sup> There were two exceptions to the interview procedure. One interview was conducted with two police officers at the same time, when a colleague became interested and involved in the interview. And one interview was conducted by one interviewer.



learning at work. Also, the impressions of the interviewers were that this particular duo could establish an attractive balance between involvement, the maintenance of a safe atmosphere and the necessary distance from the interviewee to attain descriptively valid interview data (Maxwell, 2002). Interviewees must feel comfortable to reveal information about themselves, talking to 'a colleague from the field' was therefore considered more important than a possible bias towards the provision of socially desirable answers, which was also partially avoided by raising questions regarding real life work situations.

The interviews lasted for one-and-a-half to two hours and took place in the interviewee's personal office or in a separate quiet meeting room. The police officers were informed that the purpose of the interview was to obtain an impression of what learning at work looks like for the Dutch police force and they would be asked about their personal development during everyday work situations. The police officers were reassured that the interviews were unrelated to any form of performance evaluation and that they would remain anonymous.

### **Data analysis**

The transcripts of the interview data were divided into learning events in which the interviewee mentioned work tasks; a change of knowledge, skills or attitudes; and how this came about. This change could vary from clearly identifiable and observable behavioural changes to minimal adjustments in attitudes. The learning events had to be recognised as such by the police officers themselves and were not judged by the researchers. Those activities which provided insight into what the police officers were actually doing during the learning event and therefore accompanied by comments which enabled inferences about intentionality and developmental relatedness were selected as the unit of analysis.

The data were analysed in two stages. In stage 1, learning activities and work domains were coded according to the content of the learning event following the categories outlined above. In stage 2, the relations between the different domains and types of work-related learning were examined in homogeneity analyses.

Each unit of analysis thus had two codes: one for the type of work domain and one for the type of work-related learning. When necessary, new categories of either of the typologies were formulated (Glaser and Strauss, 1967). The interviewers coded the work domains and also the intention and developmental relatedness, with the coding of the learning activities checked by other researchers and educational experts. The inter-subjectivity of the coding was calculated for a random selection of 60% of the units of analysis. The Cohen's Kappa was found to be 0.80 for intention and 0.72 for developmental relatedness.

### **Stage 1 findings**

The analyses of the interviews yielded 93 learning events with 24 about safety, 40 about liveability, two about social integrity, none about service and 50% of the learning events referring to non-specific police topics which could not be clustered into one of the four work domains. About 5% of the events contained three learning activities, about 33% contained two and the remainder contained one learning activity for a total of 131 learning activities. The non-specific police topics referred to being effective in meetings, dealing with reorganisations and colleagues in a variety of settings, organising work efficiently and the guidance of new colleagues. The non-specific police topics were grouped together, considered part of a specific communicative cultural system and categorised as police organisation problems (Onstenk, 1997). In Table 3, the frequencies of the 131 learning activities according to the particular work domain are presented per participant.

As can be seen in Table 3, the domain of police organisation problems contained the most learning activities followed by the domains of liveability and safety. Virtually no work-related learning occurred in the domains of social integrity or service. In Table 4,

Table 3: Number of learning activities according to work domains per participant

| Name  | Safety | Liveability | Social integrity | Service | Police organisation problems | Total |
|-------|--------|-------------|------------------|---------|------------------------------|-------|
| Bruce | 11     | 5           | –                | –       | 5                            | 21    |
| Bryan | 2      | –           | 1                | –       | 8                            | 11    |
| David | 2      | –           | –                | –       | 12                           | 14    |
| Jason | –      | –           | –                | –       | 7                            | 7     |
| Jeff  | –      | 1           | –                | –       | 12                           | 13    |
| Jim   | –      | 10          | –                | –       | 2                            | 12    |
| Karen | –      | 9           | –                | –       | –                            | 9     |
| Mike  | 2      | 3           | –                | –       | 8                            | 13    |
| Scott | 1      | 3           | –                | –       | 7                            | 11    |
| Steve | 6      | 9           | 1                | –       | 4                            | 20    |
| Total | 24     | 40          | 2                |         | 65                           | 131   |

Table 4: Frequencies of work-related learning according to selected work domains

| Nature of work-related learning | Work domain of the learning activity |             |                              | Total |
|---------------------------------|--------------------------------------|-------------|------------------------------|-------|
|                                 | Safety                               | Liveability | Police organization problems |       |
| Individual                      | 4                                    | 3           | 7                            | 14    |
| From others with higher status  | 2                                    | 2           | 11                           | 15    |
| From others with peer status    | 5                                    | 3           | 8                            | 16    |
| From others with lower status   | –                                    | 1           | 7                            | 8     |
| From others outside vocation    | 5                                    | 11          | 2                            | 18    |
| Spontaneous (total)             | 16                                   | 20          | 35                           |       |
| Individual                      | 2                                    | 4           | 9                            | 15    |
| From others with higher status  | 1                                    | 2           | 2                            | 5     |
| From others with peer status    | 4                                    | 7           | 5                            | 16    |
| From others with lower status   | –                                    | –           | 5                            | 5     |
| From others outside vocation    | –                                    | 2           | 2                            | 4     |
| Together with higher            | –                                    | –           | 1                            | 1     |
| Together with peer              | 1                                    | 2           | 5                            | 8     |
| Together with lower             | –                                    | –           | 1                            | 1     |
| Together with outside vocation  | –                                    | 3           | –                            | 3     |
| Deliberate (total)              | 8                                    | 20          | 30                           |       |
| Total                           | 24                                   | 40          | 65                           | 129   |

the nature of the learning associated with the learning activities occurring in the domains of safety, liveability and police organisation problems are shown. Interview examples of the 14 categories of work-related learning are presented thereafter.

### Spontaneous learning (Sp)

Of the 131 learning activities, 71 were interpreted as constituting spontaneous work-related learning.



### **Individually (In)**

Activities illustrating this category of work-related learning were found in seven of the ten interviews. As can be seen from the excerpt below, the spontaneous individual learning occurred during everyday functioning and by just doing the work itself. Examples of spontaneous individual learning activities are building up routine or remembering certain numbers and knowing what a cannabis nursery looks like from the inside. Learning is integrated into the work process itself and occurs quite implicitly, as Steve mentions when asked how he started to work differently.

I believe that it's a gradual developmental process in which you're not really aware of the things you do differently. You start to follow the method learned at school less rigidly and choose to adjust to the task-specific circumstances as well as to develop your own way of working and understanding things. But it is rather hard to express in words. (Steve, spontaneous individual learning)

### **From others**

Spontaneous learning from others was found to be the most common manner for police officers to learn at work. This category of learning has four subcategories of relatedness: from people with a higher status, with a peer status, with a lower status, or from people outside the police force.

#### **Higher status (Fh)**

Activities reflecting this category of spontaneous work-related learning were found in seven of the ten interviews. The events typically involved others providing unrequested feedback and/or critique of the employee's work behaviour or dealing with a conflict with one's manager. Several interviewees described intense situations of conflict with their managers, regarding salary, educational obligations, work behaviour or the interpretation of a task. Steve, for example, relates the following story about a difference of opinion with regard to a particular task.

A little while ago I had a robbery of an elderly couple's cash card [...]. That is a situation that requires a small investigation that I believe I am able to perform. The problem is that it is not my task to do so, because my work has an emphasis on street work and that is where I am supposed to be. I am supposed to hand the case over to a colleague. Unfortunately that colleague already has six hundred other cases to take care of, which results in an unnecessary delay in closing this case [...]. And I have to tell the couple this, and go back to the streets. I think you should be afforded [the chance] to prove yourself and given the chance to show you can do it or at least be involved in it. My manager is working strictly by the book and says that it is not my task and that he does not know if it I am even allowed to perform such an investigation and therefore I cannot. I think that such a response is too easy. (Steve, spontaneous learning from others with higher status)

#### **Peer status (Fp)**

Eight of the ten interviews covered learning activities coded as spontaneous learning from others with a peer status. This spontaneous learning happens by observing the behaviour of others, listening carefully to a discussion between colleagues or gradually adopting the work strategies of others. In the following, Bruce describes how he spontaneously became aware of the differences in the organisation of police work at a different agency.

When I started here in this police agency, I thought that I had to deal with one specific thing [which is standard for some police organisations, but not for others]. I learned pretty fast that this is not the case here; here you have to deal with everything you run into. I suddenly noticed this when I worked with a new colleague from a different agency. He was previously occupied with one specific thing, namely community policing and now in his new function at our organisation he had to do many different tasks and had trouble putting a crash with physical injury down on paper. (Bruce, spontaneous learning from others with peer status)

### **Lower status (Fl)**

Half of the interviews contained activities coded as spontaneous learning from others with a lower status. Such learning can occur, for example, via participation in a project involving colleagues, who despite their lower position and lesser experience, set you thinking. Such learning can also occur via the management of subordinates as confided by David below.

I have a husky, and those dogs are very unusual. When I first got it, it did things that I absolutely did not want it to do, so I started looking for information. It appeared that these kinds of dogs don't want rigid orders; you have to tempt them and let them learn new things. And then gradually, he'll start doing what you want. I never expected it, but since I've had that dog I have learned a great number of things. I treat some subordinates in the same way now although that should not be stated out loud here [laughs]. (David, spontaneous learning from others with lower status)

### **Outside (Fo)**

Activities illustrating spontaneous learning from others outside the police force were found in eight interviews. Such spontaneous learning can occur via suspects, juveniles or families with problems, people from local government, a mosque or an educational centre. Bryan describes a learning situation in which he and his team were criticised by the police educational institute. As a result of that they subsequently discussed how to proceed in the future (also see 'deliberate learning from others outside vocation'). Bryan summarises the learning event as follows.

Sometimes our team can make comments that hurt people's feelings. When apprentices work here, one must be ten times more careful. I know that now from experience, because recently we had a critical response from a teacher at the police educational institute [in reaction to an intern who shared his work experiences back at school]. (Bryan, spontaneous learning from others outside vocation)

### **Together**

None of the interviews contained activities coded as spontaneous learning together.

### **Deliberate learning (De)**

Of the 131 learning activities, 60 were interpreted as involving deliberate work-related learning.

#### **Individual (In)**

Activities coded as deliberate individual learning occurred in eight of the ten interviews. Employees learn deliberately at work but with no significant interaction with others when activities are performed with the goal of knowledge or skill acquisition. Examples are reading a (law) book, reading a police periodical, following how other police cases proceed via the organisation's computer system and gathering good examples of reports. David describes how he individually reflects on his work, almost daily.

As I commute home, I have time in the day that I use to think about what happened today and quickly pick some high and low moments. (David, deliberate individual learning)

#### **From others**

Deliberate learning from others was the second most common manner used by police officers to learn at work. This category of learning had four subcategories of relatedness: from people with a higher status, a peer status, a lower status or from people outside the police force.

### **Higher status (Fh)**

Five interviews contained learning activities coded as deliberate learning from people with a higher status. Examples are asking managers or someone else for advice. Bryan describes a situation in which his manager coached him with regard to a specific learning goal formulated by Bryan himself:

I had a period in which I felt myself quickly attacked by people. I frequently thought that I had to change, as I am a manager. I have a boss who said to me: 'Do not let that worry you. Do not pounce on it. Listen first and then react.' He guided me firmly for over a year. In situations where I pounced on someone else's words, he would say to me: 'Bryan, why didn't you think about it first?' Just a little guidance. Things are going easier now because someone drew attention to my behaviour. My boss kept an eye on me and he directed me back in the right direction when I went wrong. (Bryan, deliberate learning from others with a higher status)

### **Peer status (Fp)**

Activities reflecting deliberate learning from others with a peer status were reported in eight of the ten interviews. Examples are police officers explicitly deciding to learn how to do something differently in the future and asking for advice, simply posing questions to colleagues and deliberately observing others. Bruce describes how he learned by participating in a team that dealt in situations that were new to him.

Things you actually never do, such as investigating a casino [...], when a colleague starts an investigation and asks if you would like to come along and observe. You learn by participation in the group. Those investigations are fun, you can pick up a lot from them, and I really enjoy it, for I want to know how that works. (Bruce, deliberate learning from others with a peer status)

### **Lower status (Fl)**

Deliberate learning from people with a lower status was mentioned in three interviews. Examples were learning as a result of evaluation and/or reflection on work situations involving subordinates or apprentices or learning by intentionally trying a new approach and seeing how people (e.g., newcomers, subordinates, apprentices) react. Mike, for example, explicitly asks apprentices what they think of working with him as a coach and boss.

I ask the apprentices and newcomers how they experienced working with me as a coach and boss [...] what I have learned is that they think I am too serious and keep them on a tight rein. Sometimes that turns out to be negative, for they say that every once in a while a joke is in its place [...] you work rigidly and you know what you're talking about, but sometimes you believe that what you say is the only right thing. Well I guess that's wrong, because that's not my intention [...] and then we discuss this a little further so I can take it into account the next time. (Mike, deliberate learning from others with lower status)

### **Outside (Fo)**

Only one interview in our data was found to illustrate the category of deliberate learning from others outside the police force. Jeff explains how he intentionally tries to broaden his perspective on youth today:

We have to learn that there are ordinary youths in this world and not only urchins and scamps. When you come from school you want to catch urchins, but we should not forget to talk to 'normal' people and find out that if you stop and talk to them, they don't hate the police. If there are youths hanging around the place of an accident, we should start a conversation. There is always a response or a reaction and mostly nice, sometimes not, but then we should think: another time I'll go to them again. (Jeff, deliberate learning from people outside vocation)

### **Together**

Eight of the ten interviews included learning activities coded as deliberate learning together. This category of deliberate learning has four subcategories of relatedness: together with people of a higher status, a peer status, a lower status or with people outside the police force.

### **Higher status (Th)**

This type of activity was only reported on one occasion, namely in the interview with Jeff who explains how he wrote an angry letter together with some colleagues to his boss during an early stage in his career. They were convinced that their boss had made a complete mess of things at the time. Ten years later, he looked back on things and had the opportunity to discuss this with his former boss.

People got hurt. That is wrong, we didn't do the right thing. Now I see that I should have just talked to him, face to face, and not by an angry letter. Years later I ran into him and he was still mad at me. I apologised and told him my side of the story and he told his. We worked things out and now have a good relationship. He said: 'You were right. I did go with an angry attitude to work. But still, the way you told me that' ( . . . ). And we both agreed, we should explicitly mention things, don't play hide and seek, but say it and check whether you are right. That helps create better cooperation. It seems very logical, but still [ . . . ] we're human. (Jeff, deliberate learning together with higher status)

### **Peer status (Tp)**

Activities reflecting deliberate learning together with peers were found in seven of the ten interviews. Examples are debriefing after an extensive event, jointly dealing with a problem or exchanging information with others in order to become more familiar with each other's work and know where to find each other when needed. Bryan summarises how he perceives evaluation within the team in the following manner.

We talk things through and evaluate what has happened. At certain moments, your colleagues adjust directions or it is concluded that things are going well. In such a manner, you coach each other. It is a continuous process in which you are coached and you coach yourself. Often without explicitly noticing really, but at certain moments you talk about it and then it attracts attention. (Bryan, deliberate learning together with others of a peer status)

### **Lower (Tl)**

This type of activity was only found in Mike's interview in which he mentions checking monthly with his subordinates, just to see how things are going. This also provides information on how he can improve his own functioning.

Every month I make some time. Maybe only a few moments, to ask how things are going: Is everything going okay? Or are things bothering you? This is for both the group and for me as well. For me, it is a check on whether I am doing my job right. (Mike, deliberate learning together with others of a lower status)

### **Outside (To)**

Activities coded as deliberate learning together with others outside the police force were found in only two interviews. Examples of such activities are discussion, brainstorming or conversation. Jim explains how he works together with the local government and how this often contributes to the solution of a shared problem.

Especially in the youth and vice squads, you discuss possible approaches to a case with the social authorities and the child welfare council. We think about the problem together. When there is a parking problem in the area, we used to fine people but now we approach the problem critically and discuss it with local government to find a solution. (Jim, deliberately learning together with others outside the police force)

## **Stage 2 findings**

### **Overview of the analyses**

Given the exploratory nature of the present study and the nominal nature of the data, Homogeneity analysis use of Alternating Least Squares (HOMALS) was undertaken to explore the empirical relations between different types of work-related learning activities and work domains situations. HOMALS is a descriptive technique and is also known as multiple correspondence analysis. The iterative procedure examines the relation between various (nominal) categorical variables in order to divide cases into

broad homogeneous subgroups and provide information on the characteristics of these subgroups (Berg, 1987). The relations between the nominal variables can be described within a low-dimensional space with the number of dimensions based on the total fit and interpretability. Each categorical variable is plotted in the centre of the group of cases (objects) that belong to the category in such a way that the total distance between the category and the accompanying group of objects is as small as possible. At the same time, the distances between the categories are maximised through which the correspondence between the categories is described by distance. In other words, the greater the number of categories appearing simultaneously in a single case, the smaller the distance between the categories (de Heus *et al.*, 1995). Those categories which are similar are plotted close to each other while less similar categories are plotted further apart. This means that for the present research, learning activities (objects) referring to the same types of work-related learning and work domains are located close to each other and learning activities that refer to different types of work-related learning are located further apart.

The HOMALS analyses were performed with the following categories of work domains and work-related learning: liveability (LI), safety (SA), police organisation problems (POP), deliberate individual (dein), deliberate from people with a peer status (defp), spontaneous individual (spin), spontaneous from others with a higher status (spfh), spontaneous from others with peer status (spfp), spontaneous from others with a lower status (spfl) and spontaneous from others outside the police force (spfo). Given the low frequencies for some categories (see Table 4), the four categories referring to deliberate together were combined to form the category deliberate together (deto) and deliberate from others with higher status, deliberate from others with lower status, and deliberate from others outside the police were combined to form the category deliberate not with peers (denwp). Social integrity was excluded from the analysis because it contained only two references (see Table 3).

### Relations between work domains and work-related learning

The HOMALS analyses produced a two-dimensional solution with eigenvalues<sup>2</sup> of 0.74 and 0.61 summing to a total fit of 1.35. The category quantifications are plotted in Figure 1 and are interpreted based on the relative distance between work domains and work-related learning. As can be seen, the categories of 'safety', 'spontaneous from others with a peer status' and 'spontaneous individual' have more in common with each other than with the other categories of work domains and work-related learning. Safety tasks tend to be action oriented, and are required when dealing with road accidents, simple violent crimes or property crimes, which may not afford much space for deliberate learning or consultation with others at the time. Steve describes how he saw himself responding differently to a client after a rather disturbing prior incident and then discussed this with his colleagues (peers). This example shows how safety as a work domain relates to the mentioned categories of work-related-learning.

There was a road accident involving the death of a child in the morning and, in the afternoon, I had to deal with a drunk who became aggressive. Suddenly I found myself being more irritated and curt with the man than I would normally be. I thought a client should be able to interact with a police officer who is 'standard' and not influenced by previous cases, but I was. I had troubles with this, so I talked to my more experienced colleagues about it. Their reactions were very different, everyone deals with this in their own way and so I concluded for myself that it was ok. I probably acted normal, these days are just part of doing this job. (Steve)

The categories of 'liveability', 'deliberate from others with a peer status' and 'spontaneous from others outside the police' have more in common with each other than with the other categories of work domain and work-related learning. Liveability tasks refer to policing in the public domain, action during drug-related crimes and communal safety. These tasks are often performed in teams involving police officers and indi-

<sup>2</sup> HOMALS eigenvalue reflects the mean discrimination measure per dimension and has a maximum of 1.00.

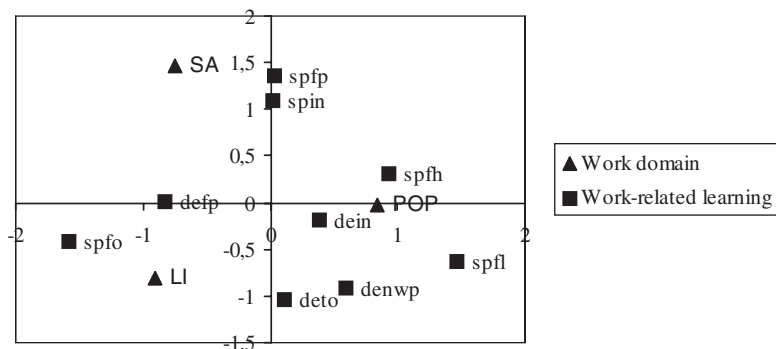


Figure 1: Category quantifications.

viduals from outside the police force, and they therefore provide different types of opportunities for learning than safety tasks do. Bruce shares a story about the development of his approach to socio-psychological problems within the domain of liveability. As will be seen, the categories of spontaneous from others outside the police and deliberate from peers are both involved.

In my previous job as a military officer, I had become quite tough, for I'd been in the Gulf War, in Cambodia and so on. I later became aware of my inability to really listen to people. For example, I had to go to a family that had lost their bird once. At first my attitude was something like: 'Oh please don't make a fool of yourself. Just go to the store and buy a new one!' Now I listen more and understand that such things can have an enormous impact on somebody's life. I have started to empathise with people.

Interviewer: How did you change that?

I learned that here, I had to. If I were deadened as in the military, people would have brought actions against me a lot.

Interviewer: How did you learn that?

Watching, watching, watching and listening to how my colleagues approach such people. (Bruce)

The categories of 'police organisation problems', 'deliberate individual', 'spontaneous from others with a lower status', and 'spontaneous from others with a higher status' had more in common with each other than with the other categories of work domain and work-related learning. 'Police organisation problems' refer to functioning within an organisation and not specifically to the police force: being effective in meetings, dealing with reorganisations and guidance of new colleagues. An example of police organisation problems and categories of work-related learning mentioned above is Scott's story about a salary conflict.

As we started the new function of mentor for apprentices, we said that it should be appraised higher. The district managers responded dramatically to that question and said: 'No, we can't do that. Just sign the contract please.' But we resisted and then the their boss came to say that it was out of the question and that we should also not ask for it anymore. And that was enough to me. I learned they were being very frenetic about it. (Scott)

Two categories could not be interpreted unambiguously, namely 'deliberate together' and 'deliberate not with peers.' These categories are located close to each other, but their distance to the domain of liveability is comparable to their distance from the domain of police organisation problems, making their interpretation rather ambiguous.

## Conclusions and discussion

In this study the nature of types of work-related learning of Dutch street police officers was examined in terms of intentionality and developmental relatedness. Fourteen of the eighteen theoretically identified types of learning were empirically recognised,



which means that the nature of much of the work-related learning of the Dutch police force can indeed be understood in terms of intentionality and developmental relatedness. The four subcategories of spontaneous learning together were not found to characterise the learning events reported by the particular group of police officers interviewed here. This may be due to the implicitness of such learning. Spontaneous learning together must be recognised as such for all of the interaction partners involved, which may be much more difficult than for individual learning outcomes and when interviewed alone.

Only two of the four work domains identified by the Police Academy of the Netherlands for training purposes were found to be relevant for work-related learning, namely the domains of safety and liveability, but not social integrity or service. It should be noted that this does not mean that the research participants did not perform work in these work domains or not learn from them; such learning was simply not mentioned in the interviews as a specific learning event. Future research may be directed at the identification of spontaneous learning together, on the one hand, and work-related learning within the domain of social integrity and service on the other. Yet another work domain was identified as relevant for almost half of the learning events mentioned by the police officers interviewed here, namely police organisation problems. The situations mentioned with regard to this work domain pertain to functioning within the organisation and not police work, which means that the present findings may be relevant for other vocations as well.

The results of the present study suggest that work-related learning may vary depending on the work domain. Situations within the domain of 'safety' appear to relate to work-related learning categories 'spontaneous from others with a peer status' and 'spontaneous individual'. Situations within the domain of 'liveability' appear to relate to 'deliberately from others with a peer status' and 'spontaneous from others outside the vocation'. Situations within the domain of 'police organisation problems' appear to relate to 'deliberate individual', 'spontaneous from others with a lower status' and 'spontaneous from others with a higher status'. In general, the findings show various domains of work to afford spontaneous work-related learning. Deliberate work-related learning was less likely to occur in the domain of safety (see also Table 3). And deliberate learning together or not with peers related more to police organisation problems and liveability than to safety. The degree to which these findings hold for other employees may be judged from the thick description of settings and findings needed to make informed judgements (Schofield, 2002).

A number of tentative implications for training and development may be formulated on the basis of the present findings and the specific connections detected between working and learning.

First and foremost, it is clear that work-related learning can vary depending on the work domains. With regard to police work, the role of peers and the individual within the domain of safety should be recognised. Similarly, the role of peers and people outside the police should be recognised for the domain of liveability. Although the relevance of the domain of organisation problems was apparent for the police, the relevance of this domain may not be limited only to police organisations (Ashton, 2004). Recognition of the roles that people with a higher or lower status can play in work-related learning and the role of the individual within the domain of organisation problems is important for not only police training, but all vocational training. On a different note, deliberate learning together and deliberate learning not with peers do not appear to relate to specific work domains. This suggests that general training in which the employees from different vocational backgrounds and with different positions are invited to participate in a mutual learning process may also be productive.

Police officers clearly learn at work, even when their activities are performed with a goal other than to learn in mind. The Police Academy of the Netherlands and various police organisations believe that a more powerful learning environment should be provided for police officers with greater attention to workplace needs and less attention to external training. The results of the present study show the conceptualisation of work-related learning in terms of intentionality and developmental relatedness to



be feasible and valid. Such a conceptualisation may also help both trainers and human resource professionals to understand work-related learning from more of a work perspective than an educational perspective. Finally, the practical utility of the conceptualisation of work-related learning lies in the identification of different types of work-related learning as possible starting points for design of interventions aimed at the development of a powerful learning environment.

## Acknowledgements

This project has been funded by the Police Academy of the Netherlands. The authors wish to thank Kaija Collin, Jeroen Onstenk and anonymous reviewers for the *IJTD* who provided valuable comments on an earlier draft.

## References

- Angrosino, M. V. and Mays de Pérez, K. A. (2000), 'Rethinking observation', in Y. Lincoln (ed.), *Handbook of Qualitative Research*. Second edition (pp. 673–702) (Thousand Oaks, CA: Sage).
- Ashton, D. N. (2004), 'The impact of organisational structure and practices on learning in the workplace', *International Journal of Training and Development*, **8**, 1, 43–53.
- Berg, v. d., G. M. (1987), *HOMALS voor beginners. [HOMALS for novices]* (Leiden, The Netherlands: Univeristy of Leiden).
- Billet, S. (1995), 'Workplace learning: its potential and limitations', *Education and Training*, **37**, 5, 20–7.
- Billet, S. (2001), 'Learning throughout working life: interdependencies at work', *Studies in Continuing Education*, **23**, 1, 19–35.
- Bolhuis, S. M. and Simons, P. R. J. (1999), *Leren en werken [Learning and working]* (Deventer: Kluwer).
- Brookfield, S. D. (1986), *Understanding and Facilitating Adult Learning* (Milton Keynes: Open University Press).
- Clardy, A. (2000), 'Learning on their own: vocationally oriented self-directed learning projects', *Human Resource Development Quarterly*, **11**, 2, 105–25.
- Coffield, F. (ed.) (2000), *The Necessity of Informal Learning* (Bristol: The Policy Press).
- Collin, K. (2004), 'The role of experience in work and learning among design engineers in Finland', *International Journal of Training and Development*, **8**, 2, 111–27.
- Cseh, M., Watkins, K. E. and Marsick, V. J. (2000), 'Informal and incidental learning in the workplace', in G. A. Straka (ed.), *Conceptions of Self-directed Learning. Theoretical and Conceptual Considerations* (Münster: Waxmann).
- D'abate, C., Eddy, E. R. and Tannenbaum, S. I. (2003), 'What's in a name? A literature based approach to understanding mentoring coaching, and other constructs that describe developmental interactions', *Human Resource Development Review*, **2**, 4, 360–84.
- de Heus, P., van der Leeden, R., and Gazendam, B. (1995), *Toegepaste Data-analyse [Applied Data-analysis]* (Maarssen: Elsevier).
- de Jong, J. A. (1996), 'Research into on-the-job training: a state of the art', *International Journal of Educational Research*, **25**, 5, 449–64.
- Dixon, N. (1994), *The Organizational Learning Cycle: How We can Learn Collectively* (London: McGraw-Hill).
- Doornbos, A. J., Bolhuis, S. and Simons, P. R. J. (forthcoming), Modelling work-related learning on the basis of intentionality and developmental relatedness: A non-educative perspective, *Human Resource Development Review*.
- Ellström, P. E. (2001), 'Integrating learning and work: problems and prospects', *Human Resource Development Quarterly*, **12**, 4, 421–35.
- Eraut, M. (2000), 'Non-formal learning and tacit knowledge in professional work', *British Journal of Educational Psychology*, **70**, 1, 113–36.
- Eraut, M., Alderton, J., Cole, G. and Senker, P. (1998), *Development of Knowledge and Skills in Employment* (Brighton, UK: University of Sussex Institute of Education).
- Ericsson, A. and Simon, H. A. (1993), *Protocol Analysis: Verbal Report as Data* (Cambridge, MA: MIT Press).
- Fuller, A. and Unwin, L. (2004), 'Young people as teachers and learners in the workplace: challenging the novice-expert dichotomy', *International Journal of Training and Development*, **8**, 1, 32–42.
- Garrick, J. (1998), *Informal Learning in the Workplace. Unmasking Human Resource Development* (London: Routledge).

- Glaser, B. G. and Strauss, A. L. (1967), *The Discovery of Grounded Theory: strategies for qualitative research* (Chicago: Aldine).
- Gutierrez, R. S. and Thurman, Q. C. (1997), 'Selecting, training and retraining officers to do community policing', in Q. C. Thurman and E. F. McGarrell (eds.), *Community Policing in a Rural Setting* (Cincinnati: Anderson).
- Higgins, M. C. and Kram, K. E. (2001), 'Reconceptualizing mentoring at work: A developmental network perspective', *Academy of Management Review*, **26**, 2, 264–88.
- Hodkinson, P. and Hodkinson, H. (2004), 'The complexities of workplace learning. Problems and dangers in trying to measure attainment', in H. Rainbird, A. Fuller and A. Munro (eds), *Workplace Learning in Context* (pp. 259–75) (London: Routledge).
- Illeris, K. (2002), *The Three Dimensions of Learning. Contemporary Learning Theory in the Tension Field between the Cognitive, the Emotional and the Social* (Frederiksberg, Denmark: Roskilde University Press).
- Knowles, M. S. (1984), *Andragogy in Action* (San Francisco: Jossey-Bass).
- Kram, K. E. (1985), *Mentoring at Work. Developmental Relationships in Organizational life* (Glenview, IL: Scott Foresmann).
- Kvale, S. (1996), *InterViews: An introduction to qualitative research interviewing* (Thousand Oaks, CA: Sage).
- Kwakman, C. H. E. (1999), *Leren van docenten tijdens de beroepsloopbaan. Studies naar professionaliteit op de werkplek in het voortgezet onderwijs. [Teacher learning. Studies to the professionalism at the workplace in secondary education]* (Nijmegen: University of Nijmegen).
- Lave, J. and Wenger, E. (1991), *Situated Learning – Legitimate Peripheral Participation* (Cambridge: Cambridge University Press).
- Levy, D. A., Collins, B. E. and Nail, P. R. (1999), 'A new model of interpersonal influence characteristics', *Journal of Social Behavior and Personality*, **13**, 4, 715–33.
- Marsick, V. J. and Watkins, K. E. (1990), *Informal and Incidental Learning in the Workplace* (London: Routledge).
- Maxwell, J. A. (2002), 'Understanding and validity in qualitative research', in M. B. Miles (ed.), *The Qualitative Research Companion* (pp. 37–64) (Thousand Oaks, CA: Sage).
- McCauley, C. D. and Hezlett, S. A. (2001), 'Individual development in the workplace', in N. Anderson (ed.), *Handbook of Industrial, Work and Organizational Psychology I* (pp. 313–35) (London: Sage).
- McCauley, C. D., Ruderman, M. N., Ohlott, P. J. and Morrow, J. E. (1994), 'Assessing the developmental components of managerial jobs', *Journal of Applied Psychology*, **79**, 4, 544–60.
- Megginson, D. (1996), 'Planned and emergent learning. Consequences for development', *Management Learning*, **27**, 4, 411–28.
- Onstenk, J. H. A. M. (1997), *Lerend leren werken. Brede vakbekwaamheid en de integratie van leren, werken en innoveren* [Learning to learn to work. Broad professional skill and the integration of learning, working and innovation] (Delft: Eburon).
- Palonen, T., Hakkarainen, K., Talvitie, J. and Lehtinen, E. (2003), 'Network ties, cognitive centrality, and team interaction within a telecommunication company', in P. A. Boshuizen, H. Gruber and R. Bromme (eds), *Professional Development: gaps and transitions on the way from novice to expert* (Deventer: Kluwer Academic Publishers).
- Salomon, G. and Perkins, D. N. (1998), 'Individual and social aspects of learning', *Review of Research in Education*, **23**, 1–24.
- Schofield, J. W. (2002), 'Increasing the generalizability of qualitative research', in M. B. Miles (ed.), *The Qualitative Research Companion* (pp. 171–203) (Thousand Oaks, CA: Sage).
- Skule, S. (2004), 'Learning conditions at work: a framework to understand and assess informal learning in the workplace', *International Journal of Training and Development*, **8**, 1, 8–20.
- Sonnentag, S. and Kleine, B. M. (2000), 'Deliberate practice at work: a study with insurance agents', *Journal of Occupational and Organizational Psychology*, **73**, 1, 87–102.
- Staton, A. Q. and Hunt, S. L. (1992), 'Teacher socialization: review and conceptualization', *Communication Education*, **41**, 2, 109–37.
- Taylor, P. J. and Small, B. (2002), 'Asking applicants what they would do versus what they did do: A meta-analytic comparison of situational and past behaviour employment interview questions', *Journal of Occupational and Organizational Psychology*, **75**, September, 277–94.
- Vail, P. (1996), *Learning as a Way of Being* (San Francisco: Jossey-Bass).
- Vandenabeele, J. and Wildemeersch, D. (1998), 'Learning for sustainable development. Examining life world transformation among farmers', in D. Wildemeersch, M. Finger and T. Jansen (eds), *Adult Education and Social Responsibility. Reconciling the irreconcilable?* (Vol. 36, pp. 117–33). (Frankfurt am Main: Peter Lang).
- Woerkom, M. (2003), *Critical Reflection at Work. Bridging Individual and Organisational Learning* (Twente University Enschede: PrintPartners Ipskamp).