Learning for Vocation Apprentice Participation in Work Practice

Kitt Lyngsnes

Nord Trondelag University College,

Levanger, Norway

Marit Rismark

The Norwegian University of Science and Technology,

Trondheim, Norway

The high drop-out rate in upper secondary education is a major challenge to European and US educational programmes. Upper secondary education in Norway faces a similar challenge, because in recent decades, around one-third of the students drop out of the educational programmes. The majority of the drop-outs are students in vocational programmes, and a substantial number are apprentices at the workplace. With these high drop-out rates and the ensuing personal, social and economic consequences, it is vital to address how upper secondary education systems can keep students connected throughout the programmes. By thoroughly analyzing learning environments and the experiences, interactions and processes which youth deal with during vocational education, insights into how characteristics of the learning environments relate to dropping-out and connectedness may be brought into educational discussions. The case study presented in this article explores how workplaces constitute learning environments and how apprentices participate in the learning environments of work according to their dispositions, aims and life plans. The findings show that the apprentices had different agencies and that they were involved in two distinct participation patterns at the workplace: a collaborative pattern and an executive pattern. Our findings also suggest that strong agency for the vocation may keep apprentices connected throughout the educational programme, although they are afforded an executive participation pattern. Based on our findings, it is appropriate to raise questions as to whether an unclear agency for the vocation, together with affordance of executive participation patterns, may suggest one possible answer for the high drop-out rate among apprentices.

Keywords: vocational education, workplace learning, learning environments, apprenticeship, Norway

Introduction and Focus

The high drop-out rate[1] in upper secondary education is a major challenge to European and US educational programmes. Upper secondary education in Norway faces a similar challenge, because in recent decades, around one-third of the students drop out of the programmes. The majority of the drop-outs are students in vocational programmes, and a considerable number are apprentices at the workplace. One comprehensive study showed that five years after enrolment, only 50% of the students in vocational education had been awarded their final diploma. The rest had failed or dropped out (Markussen, Frøseth, Lødding, & Sandberg, 2008). A consequence of leaving education programmes without obtaining a diploma is having fewer opportunities in the job market

---

Kitt Lyngsnes, Ph.D., associate professor, Department of Teacher Education, Nord Trondelag University College.

Marit Rismark, Ph.D., associate professor, Department of Adult Learning and Counselling, The Norwegian University of Science and Technology.

[1] Drop-out percentages are not always accurate (Beekhoven & Dekkers, 2005), and one problem researchers in most countries have is how to determine when a person should be considered an early school leaver and what level of education people should be at by a certain age.

and limited access to post-secondary education. Moreover, costs to society may be high as upper secondary school drop-outs are more likely to be unemployed, to earn less, to have more difficult lives and to be on welfare (Land & Legters, 2002; Kaufman, Alt, & Chapman, 2001; Natriello, 1997). With these high drop-out rates and the ensuing personal, social and economic consequences, it is vitally important to examine how upper secondary educational systems can keep students connected throughout the programmes.

According to the OECD (Organisation for Economic Cooperation and Development), Norway has a well developed vocational education and training system which enjoys a high degree of confidence (Kuczera, Brunello, Field, & Hoffman, 2008). Vocational education programmes in Norway follow a split model where the participants start out as students enrolled in a two-year school programme. This period is followed by a two-year apprenticeship at a workplace, framed by a national curriculum. Legally, apprentices are employees of the enterprise, with conditions specified in a contract that is signed by the apprentice, the company and the county administration. During the apprenticeship, one employee plays the role as a trainer supervising the apprentice. The apprenticeship period is completed with a final examination and diploma. The OECD report (Kuczera et al., 2008) found the following positive characteristics of the Norwegian VET system: (1) the good cooperation between employers, unions and vocational authorities; (2) the fairly high status of the vocational tracks in upper secondary education; (3) the relatively high degree of inclusion of international standards; and (4) in fact, in the tight labour market, employers are still dedicated to attracting apprentices. However, the system faces a number of challenges, among which the OECD report points to a lack of standardised national assessments, no qualification requirements for enterprise-based trainers and the unquestionably largest issue—the drop-out rate.

Research has provided insights into several factors and their interrelations affecting the drop-out rate, and the main findings focus on the identification of characteristics of drop-outs. Social background, gender, ethnicity, previous school outcomes and truancy are found to affect drop-out rates (Markussen, 2008; Patterson, 2007; Byrhagen, Falch, & Strøm, 2006; Beekhoven & Dekkers, 2005; Montecel, J. D. Cortez, & A. Cortez, 2004; Fry, 2003; Beekhoven & Dekkers, 2005). In addition to the documented characteristics, we will argue that there is a need to broaden the perspectives on many drop-out issues. By thoroughly analysing learning environments and the experiences, interactions and processes which youth deal with during vocational education, insights into how features of the learning environments relate to dropping-out and connectedness may be brought into educational discussions. There are, however, few research findings that provide such insights (Lyngsnes, 2003; Nielsen & Kvale, 2003; Bogeskov, 2003).

Participants in vocational education programmes encounter two distinct learning environments, each with unique traditions, aims and organisation. In the first part of their education, "school" is the learning environment. In the second part, when they are apprentices, the "workplace" is their learning environment. A key issue for the learning environment at the workplace is that production is valued over learning. Thus, production sets the standards and frames the learning conditions. At the same time, the enterprise is obliged to contribute in ways that support apprentice learning according to national curriculum requirements.

The case study presented in this article explores how workplaces constitute learning environments and how apprentices participate in the learning environments of work according to their dispositions, aims and life plans.

Theoretical Framework

According to Jorgensen and Warring (2000), analyses of learning environments at the workplace need to consider three aspects. The first aspect is the technical-organizational aspect, which refers to the importance of

such dimensions as organizational structure, the employee's position at the workplace, the distribution of tasks and communication channels and patterns, and the kind of work and production taking place. The second aspect is about the socio-cultural, which may include shared values, norms and language that link different groups at the workplace. Control, power, status and influence are also elements of the socio-cultural dynamics of the workplace communities. The third aspect is about that the biographies of the employees, for example, referring to life stories, experiences and backgrounds, are a key part of understanding and analyzing workplaces as learning environments. Following this, the learning environment is constructed on the basis of the apprentices' biographies, relations to a range of fellow employees and the content and organization of work, "The learning environment is thus established through subjective ascription and the social negotiation of meaning of the changing technical-organizational environments" (Jorgensen & Warring, 2000, p. 10).

Situative perspectives on workplace learning maintain that learning is rooted in the situations in which people participate. According to this approach, knowing and learning are understood as engaging in changing participation processes in a particular community of practice and social participation being analogous to learning (Fenwick, 2002; Rogoff, 1995; Lave & Wenger, 1991). Given that the situative perspective perceives learning as an integral dimension of social practice, it follows that participation in a social community of practice allows learning to take place. Research that draws upon socio-cultural frameworks reports that workplaces need to be conceptualized more clearly as learning environments by identifying their characteristics and qualities and considering how their contributions can be best organized to assist learning (Billett, 2006). Billett (2006) maintained that "co-participation" was a key concept and a platform for building an understanding of workplace pedagogic practices. During work placements, apprentices must be afforded ways of gaining access to learning opportunities through growing involvement by moving from peripheral positions towards more central positions in the work community. Figure 1 is a modified model developed by Billett (2001; 2002) that illustrates the reciprocity between what the work practice affords and how individuals participate and engage with the practice, termed co-participation. Thus, the three aspects of the learning environment, as suggested by Jorgensen and Warring (2000), find their forms in the interaction between the apprentice and the work practice, by foregrounding the interactive qualities of affordance and engagement, as pointed out by Billett.
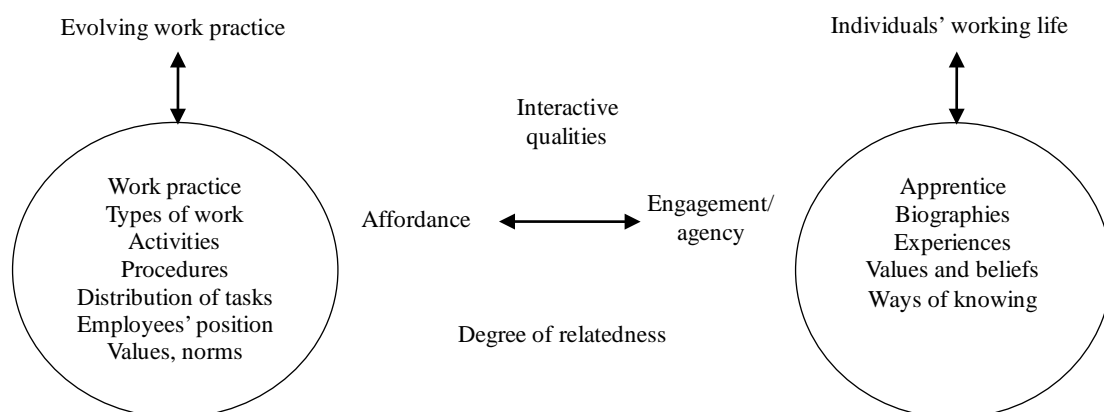

Figure 1. Co-participation at work.

The situative perspective embedded in this model provides an opportunity to illuminate and understand how apprentice participation is constituted due to workplace affordances and apprentice engagement and agencies. Workplace affordance means the degree to which the workplace experience is invitational. A

workplace will invite workers to become engaged and learn, insofar as that participation serves the workplace's goals and/or the interests of those within it (Billett, 2006). The invitational character of experiences is shaped by such things as access to goal-directed activities in the workplace and close interpersonal interactions with fellow employees through which learning is made accessible and can be guided, and access to the more indirect mediation of social and cultural practices, for example, through observations, imitations and workplace artefacts, to shape the invitational character. Opportunities to participate in and access support and guidance are not uniformly distributed across participants. Beyond judgements of individuals' competence, basis for affordances includes race, gender, worker or employment status and workplace affiliations.

Individuals' engagements in workplace practices and the learning that takes place through that participation will always be unique in some ways to their personal histories and subjectivities (Billett, Barker, & Hernon-Tinning, 2004). The individuals will determine how they participate in and learn through what is afforded them, premised on their values, goals and experiences (Billett, 2006). To apprentices, work placement is a relatively defined time space within which one objective is to be awarded a final diploma and to make new decisions about moving on to other educational or professional challenges. Agency is a theoretical construct that points to the capacity of an individual to act independently and to make one's own free choices (Giddens, 1990). Decision-making processes and choice implementation are main concepts in the lives of young people (Germjis & Verschueren, 2007). Fererira (2007) maintained that this life-space is constructionist in nature and that each individual relates to a concomitant life-span reality. According to Guichard and Dumora (2008), each individual in our society must find an answer to the fundamental question of how to best direct one's own life in the globalised society today. Career choices are made within the context of several social networks and personal and social expectations. To individuals in the knowledge societies, career related issues are only part of much broader concerns about how to live a life in the post-modern world, for example, the issue of how to balance work-family activities and work-social life was becoming salient in people's reflections on their competencies and aspirations (Savickas et al., 2009).

Research findings support the view that apprentices participate and engage in work practice according to affordances in the workplace. Wilbrandt (2003) found that apprentices did not participate in all stages of work procedures. Apprentices expressed the view that participation mainly evolved around implementation of given tasks and that these tasks focused mainly on "what" to do more than "why" the work needed to be done. In this study, the workplace afforded access to work and work procedures, while apprentices were not afforded access to reasoning and reflections on the basis and necessities of the work they participated in. Research also showed that taking part in decision-making enhances learning at the workplace (Van Woerkom, 2003). Joint decision-making involves the apprentice and more experienced employees in a dynamic totality. According to findings from Danish studies, apprentices share insights and regard their trainer as the only one of several potentially valuable persons whose expertise they can draw on in the learning process (Nielsen, 2003). Following employees and even other apprentices may also provide affordances.

Methodological Approach

A case study approach was used to explore how workplaces constitute learning environments and to ascertain how apprentices participate in the learning environments of work according to their dispositions, aims and life plans. Case studies imply proximity to real-life situations and their multiple wealth of details. This may provide a nuanced and rich view of reality, including the dynamics and complexity of human behaviours

(Flyvbjerg, 2004).

As the purpose was to obtain the richest possible information on apprentice participation, the choice was to make a purposeful selection of cases instead of representative or random sampling. We used in-field assistance, a contact-net of teachers within vocational education, to enable this information-oriented selection. Apprentices within three distinct trades were selected according to expectations for their information content. One apprentice worked in a large company within the service sector, with the intention of becoming a waitress. Another apprentice was in a small private building company, training to be a carpenter. The third apprentice was training to be a childcare worker in a public enterprise.

To have adequate variety in the data material, multiple data sources were used. Contextual grounding is essential for understanding the meanings individuals make of their experience (Taylor & Watt-Malcom, 2007; Morrow, 2005). Bearing this in mind, we re-contextualised our interview-based data by acquainting ourselves with the workplaces prior to the interviews. We visited worksites and were guided around the facilities. We were informed about essentialities with respect to organisational structures, kinds of work and production taking place, distribution of tasks, ways of communicating and learning activities organised for apprentices. To ensure further contextual grounding of the study, three teachers in the school part of the three vocational programmes in question were interviewed about curriculum, trade characteristics, norms and values.

The main data sources were in-depth interviews with the three apprentices and their trainers. The apprentices, well into their last year of their apprenticeship, were interviewed one by one. Using a partly structured topics list, the informants were encouraged to elaborate on their experiences regarding their participation in work activities, organised learning activities, distribution of work and involvement in decision-making processes, and views on rules and routines within the work community, learning opportunities, mentoring and personal initiatives. The interviews were similar to a conversation format and the informants were invited to reflect upon real situations and examples raised both by themselves and the researchers. A few open-ended questions may be effective and elicit stories and deeper meanings from informants (Morrow, 2005). In our study, the informants shared and expanded their individually constructed version of reality and had opportunities to develop new insights into phenomena during the interview. The interviewers always made an effort to obtain clarifications if necessary, ensuring that apprentice participation was fully described by both apprentices and their trainers. This way of conducting interviews made the interview itself a process of interpretation (Fog, 2004; Kvale, 1997). A second level of interpretation occurred in the process of analysing this data material into themes at a more conceptual level (Creswell, 2007).

Peer-researchers implied a close collaboration during the different phases of the research process. During interviews, we worked together and assisted and filled in for each other as we talked through the interview themes with the informants. The close collaboration was also important for the data analysis. The joint data collection enabled us to establish a common frame of reference that allowed for a more deliberate and focused interpretation of the data material. The aim was that the contextual grounding of informants' experiences and the close peer collaboration throughout the research process would enhance the credibility of the study.

Apprentice Participation

Different workplaces offer different learning opportunities. The three cases provide a glimpse into apprentice participation in three completely different workplaces, each with distinct production, priorities and traditions. A situated perspective on learning and learning environments provides an opportunity to shed light

on how apprentice participation is constituted according to workplace affordances and apprentice agencies. For each of the three cases, we start by giving a brief outline of the workplace context. The text elaborates on the informants' perceptions and experiences of interrelated workplace events and workplace dynamics as they were raised and emphasised during the interviews.

The Waitress Case

The 19-year-old waitress apprentice worked in a major company consisting of a large hotel, conference centre, two restaurants and a bar. She was in her last year of the two-year apprenticeship and mainly worked in the restaurant and in the bar together with 25 other staff members and three additional apprentices. She was very pleased to have her apprenticeship at this particular hotel as it had a high status as a work placement. The waitress-to-be was sure that this was the type of job she wanted: "I feel very content in this vocation, I have found my place".

According to the apprentice, her days were filled with "routine activities". For example, there were specific and set ways to lay the table and a set succession to the tasks. She also pointed out that there were particular second-rated job tasks that were mainly reserved for the apprentices, such as polishing cutlery and glasses and wiping tables. The trainer shared the view that the distribution of tasks included designated apprentice tasks. She underlined, however, that apprentices never worked alone on these typical apprentice tasks as other staff members always carried out additional work in the same area: "We're there together with them all the time". The apprentice felt that she was working side by side with other employees who gave her orders: "Almost everybody tells me what to do, but I can't do everything. Although I'm an apprentice, I don't have eight arms". In the everyday work situation, the waitress apprentice felt that she and her fellow apprentices had little influence on what to do and how to do it. As the apprentices did not have access to the regular staff meetings where plans and decisions were made, they had limited opportunities to fully comprehend and influence work procedures and content. Nor did the apprentices have access to joint staff benefits, such as the sharing of tips. Even if the apprentices were tipped by satisfied customers, they were not given their share of the money at the end of the shift.

The apprentice felt that this situation prevented apprentices from being valued employees who contributed positively to the work community. As such, they had active roles in "executing" job tasks, but had no or limited access to influence "planning" and to mutually enjoy achieved "rewarding".

As part of the apprentice programme, the apprentices took part in an organized "monthly seminar" at the hotel. The trainer planed and ran the seminars. She stated that a good apprentice was an active apprentice and her aim was to make the apprentices take more responsibility for their own learning. For example, she encouraged the apprentices to participate by proposing relevant seminar themes focused on the work practice. The trainer felt, however, that she was more active than the apprentices. The topic "wines" had been a challenge for a long time. When the apprentices waited on tables in the restaurant, they found themselves in uncomfortable situations when they were not able to recommend wines at levels that matched the guests' knowledge of wines. According to the apprentice trainer, there was no doubt that the apprentices felt the need to expand their competence in selecting wines. Even though they had set up a special cupboard full of wines, the apprentices rarely took the opportunity to learn more: "Even if they feel a lack of knowledge, they trust that we will be there to assist and guide them. It is we, the waitresses, who have to take the initiative. Sometimes I wish they could work alone for a few hours to force them to see the need to learn". The trainer could hardly

think of apprentices as capable of providing any contributions to the work community or to job accomplishment: "but they are a young and fresh addition".

Apprentices were given second-rate jobs and they were given orders at the same time that the trainer expects them to show initiative and independence with respect to job challenges.

At the hotel, both the apprentice and the trainer used the terms "we" and "them" in their stories about apprentices and staff at the workplace. This seemed to reflect a distinct insider—outsider dimension. As seen, this dimension is evident in issues connected to distribution of tasks, initiative and responsibility, joint work planning and sharing rewards.

The Carpenter Case

The 19-year-old carpenter worked in a small building company with seven employees and one additional apprentice. The carpenter apprentice had acquired his interest in carpentry from assisting his uncle prior to entering the vocational education programme. He claimed to be very content with being a carpenter: "I'm so happy with carpentry". At the same time, the apprentice expressed ambitions and pictures carpentry as a valued platform for further education and thus accessed to a broader range of jobs. He saw himself advancing through the educational system to become an engineer in the end.

The company directors invited tenders, calculated costs and distributed the jobs within the company. Most often, the employees worked in groups of two or three at various building sites. They do a variety of jobs, new constructions, renovations and repairs. For example, the apprentice might work together with a trained carpenter on renovating a house. At the building site, the team jointly planed and discussed possible approaches and solutions: "We do not go by the book, there is always a need to improvise. We have an open dialogue between us". Both the apprentice and the trainer expressed that there were no second-rate jobs for the apprentices to take. If the apprentice carried heavy objects at the building site, he saw this as natural due to his youth and strength. The trainer placed high value on having apprentices in the company, and emphasised that experienced carpenters might increase their knowledge by having access to updated theoretical knowledge that the apprentices acquire through their schooling.

The apprentice described multifaceted work days that called for collaborative approaches, but at the same time also felt that he worked independently. He worked side by side with trained craftsmen who were available to assist him when needed. The apprentice felt free to ask questions at any time and the craftsmen also sometimes demonstrated how to carry out work procedures. The trainer pointed out that an apprentice who asked questions and persistently sought new insights is an excellent apprentice.

The company did not organise learning activities on a regular basis. The trainer maintained that the best way to learn was through everyday work. To meet curriculum requirements, the apprentice and the trainer went through the curriculum document every three months to ensure that the apprentice's work tasks correspond to the learning targets in the curriculum.

Both the instructor and the apprentice spoke about apprentices as fellow employees and full members of the work community. Apprentices were included in all social events at the workplace, and were naturally invited to go along on fishing and skiing trips. The apprentice consistently used the term "we" when talking about his workplace in terms of planning and performing work at the building sites and social activities and gatherings.

The Childcare Case

The 19-year-old childcare worker was in her second year of her apprenticeship. During the first year, she

had her placement in a kindergarten. Then she was working in a school both as an assistant during school hours and in the after-school day-care programme attended by around 70 children. When entering upper secondary education, she chose the Programme for Health and Social Care quite by chance. She was not sure that she had made the right and the final choice of a vocation: "I need to try different jobs. Right now I am not ready to get stuck in a specific vocation". Although she quite liked her placement, she would have preferred to continue in the Programme for Specialisation in General Studies with her former classmates (which qualify pupils for admittance to higher education). She had decided to enter this programme after she had been awarded her diploma as a childcare worker.

The work within the school and the after-school programme involved hectic days with never-ending streams of situations that called for involvement. When she worked in school, she assisted pupils with learning disabilities by supporting them when they worked with learning materials and tasks, handed over to the pupils and the apprentice when the lessons started. The apprentice did not participate during preparations and planning ahead of learning activities or in discussions and evaluations after the lessons. She described her duties within the school in part as strictly "helping out". She expressed a different role in the after-school programme: "I don't really feel like an apprentice, I feel I'm part of it". Both the apprentice and the trainer described the work situation as unpredictable and underlined the need for a continuous flow of decision-making. At the same time when she participated in meetings, discussing activities and schedules, she also planed and was in charge of activities for groups of children on equal footing with other staff in the after-school programme. Both the apprentice and the trainer emphasised that for childcare workers, learning took place during everyday work: "You may read about how to stimulate a child's development, but you do not really take this in until you meet five kids who need to be stimulated in different ways". Learning was described as an ongoing process that involved trials and errors. The trainer pointed out that learning for this vocation involved experiencing, observing and asking questions. In her opinion, a good apprentice also grasped the challenges and believed in her own ability to cope with the situations.

Organised learning activities took place on a weekly basis. The trainer then invited the apprentice to elaborate on particular situations based on her last week's work experience. The apprentice was invited to reflect on what really take place, what flowed well and alternative ways of handling the situation. If the apprentice did not offer elaborated reflections at these times, the trainer provided some hints and guidance about the matters in question. Her idea was that by linking work situations and guidance, apprentice learning would be enhanced.

The apprentice's descriptions of her experiences from the school and the after-school programme suggest that she filled two distinct positions and participated in two distinct ways in the two work settings.

In Situ Participation Patterns

Our findings clearly reflected that the three workplace practices allowed for distinct participation patterns to emerge. Learning was closely connected to the social relations that made it legitimate and this was evident in the apprentices' "position" at the work placements, as they were treated and valued differently. At the hotel, there were two separate leagues of employees: the apprentices and the "real" employees. This left the apprentices in an outsider position. In the building company, all the employees were in the same league and the apprentices were insiders. At the school placement, the apprentice was both an outsider and an insider as she moved between the in-school and after-school programmes.

The insider and outsider positions were evident in workplace activities as the three workplaces differed with respect to the ways in which apprentices were involved in the everyday work. Our analyses suggest that apprentice participation in the three workplaces mainly circled around two participation patterns that distributed unequal access to work tasks and to the broader work communities. Participation in ongoing everyday work activities formed the following patterns: (1) an "executive pattern" at the hotel; (2) a "collaborative pattern" at the building site; and (3) respectively executive and collaborative patterns at the two-part school placement. The two participation patterns illustrated how the work communities provided different affordances and unequal learning opportunities for the apprentices.

Access was needed to learn and become a competent and full member of the work community (Lave & Wenger, 1991). Within the hotel placement, the apprentices were assigned to execute routine work and "apprentice tasks". By and large, they were shut out from professional meetings and from social gatherings linked to work. Apprentices were not invited into discussions and meetings to participate in making plans, priorities and decisions regarding work. They undertook designated tasks. At the hotel, restricted access to the work communities' overall understandings and rationalities for work procedures, priorities and decision-making left the apprentices as peripheral members within the work community, with limited identification and learning opportunities. The same truth is for the school part of the childcare placement. In general, routine work provided restricted opportunities for new learning (Billett, 2004). Carrying out routine activities implied refining what has already been learned and might lead to higher levels of automated action, but learning issues needed to be instantiated, refined and elaborated for new learning to take place (Rismark & Sølvberg, 2007). The executive pattern implied a lack of affordance, thus no access to learning trajectories might lead apprentices from the periphery to more central positions within the work community through their growing involvement. As a consequence of the executive pattern during work placement, there would have to be a considerable shift in position, from outsiders to insiders and from peripheral to full membership in the work community once apprentices are awarded their final diploma.

In the work sites at the building company and in the after-school programme, the apprentices had access to all phases of the work. Work involvement through collaborative patterns and mutual engagement in issues relating to building and childcare represent movements towards fuller participation, fuller membership and being agents in workplace activities. This may in turn open for the acquisition of more comprehensive and critical knowledge. Sfard (1998) pointed out that the participation metaphor invokes themes of togetherness, solidarity and collaboration which can promote more positive risk-taking and inquiry in workplace learning environments. This was highlighted in the childcare case example where the apprentice and the trainer together planned, discussed and reflected on activities. The example shows how collaboration and guided participation could foster inquiry and acquisition of knowledge.

Agency

The ways in which the three apprentices were involved in, participated in and learned from workplace activities were clearly coloured by agency; their capacity to act independently and to make free choices (Giddens, 1990). They were in the nascent stage of their professional lives and each of them described their placements by relating to more general life plans. Life planning follows the urge to choose life paths and construct personal identities in a complex and ambivalent postmodern society.

The data material suggests that workplace experiences were interwoven with the apprentices' personal

subjectivities, and that apprentices outlined their future biographies and life plans in relation to the current placements in three unique ways. The waitress apprentice expressed a feeling of belonging and felt sure that this was the job she really wanted. She regarded the placement as a step towards "settling down" within the vocation she had chosen at an earlier stage. The carpenter apprentice had acquired an interest for carpentry from assisting his uncle prior to entering the vocational education programme. He pictured carpentry as a prosperous choice for several educational and job options yet to be explored. To him, apprenticeship was a stepping stone for "building a career" both in an educational and professional sense. The childcare apprentice related her concerns and future priorities to her social life outside the placement, and this was tied to the fact that her friends had chosen a different path of upper secondary education. She suggested that her career choices were temporary and that they should have been made more deliberately within the context of her social networks. She saw herself as "passing through" this work experience in the after-school programme on her way towards other educational and vocational challenges.

A Main Challenge: Keeping Connected

The three apprentices kept connected throughout the educational programmes. They were engaged, participated actively and had the goal of being awarded their final diploma just a few months ahead. The findings show that the apprentices had different agencies and that they were involved in distinct participation patterns at the workplace. The waitress to-be had a clear and steadfast agency about becoming a waitress and kept connected to the educational programme even though her placement afforded an executive pattern, a participation pattern that might provide limited opportunities for new learning. The carpenter apprentice also had a clear and steadfast agency about getting his final diploma as a carpenter and his placement afforded a collaborative pattern, which offered rich learning opportunities. The childcare apprentice had an unclear agency about becoming a childcare worker. She quite enjoyed her placement and felt she belonged in the workplace that afforded a collaborative pattern.

Insights into apprentice agencies and participation patterns may contribute to debates on how to keep students connected throughout the upper secondary education programmes. Our findings suggest that strong agencies may keep apprentices connected throughout the educational programme, even though they are afforded an executive participation pattern. Based on our findings, it seems to be appropriate to raise questions as to whether an unclear agency about the vocation together with affordance of executive participation patterns may indicate one possible reason that can explain why apprentices drop out. Our findings also show the importance of the community of practice for apprentices' learning. The two identified participation patterns both involved the apprentice and many fellow employees in the community of practice, and not first and foremost the trainer and the apprentice. Apprentices who were afforded a collaborative pattern emphasised that the feeling of belonging in the work community was a vital aspect of job satisfaction. As such, the trainer, who arranged organised learning activities, is one of many valuable persons who may afford access to the community.

Our study on how apprentices participate in the learning environments of work according to their dispositions, aims and life plans has limitations. The findings stem from a limited number of workplaces and apprentices at a given point in time. Future research should design a longitudinal study and study a larger sample of youths throughout their entire vocational education period to explore their considerations and choices about their current situation related to their social, educational and professional priorities. Furthermore, research should explore if the identified executive pattern and collaborative pattern are unique for the cases in

our study, for example, whether the executive pattern in the waitress case in our study is unique to this particular hotel, or if it is a general trait in hotel placements within upper secondary education. As apprentices working in hotels and restaurants have the highest drop-out rate within the Norwegian vocational education, it remains to be seen if the executive pattern may shed light on the high drop-out rate for this group.

References

Beekhoven, S., & Dekkers, H. (2005). Early school leaving in the lower vocational track: Triangulation of qualitative and quantitative data. *Adolescence, 40*(157), 197-213.

Billett, S. (2001). Co-participation at work: Affordance and engagement. In T. Fenwick (Ed.), *Sociocultural perspectives on learning through work: New directions in work and continuing education*. San Francisco: Jossey Bass/Wiley.

Billett, S. (2002). Towards a workplace pedagogy: Guidance, participation and engagement. *Adult Education Quarterly, 53*(1), 27-43.

Billett, S. (2004). Learning through work: Workplace participatory practices. In H. Rainbird, A. Fuller, & A. Munro (Eds.), *Workplace learning in context* (pp. 109-125). London: Routledge.

Billett, S. (2006). Constituting the workplace curriculum. *Journal of Curriculum Studies, 38*(1), 31-48.

Billett, S., Barker, M., & Hernon-Tinning, B. (2004). Participatory practices at work. *Pedagogy, Culture and Society, 12*(2), 233-257.

Byrhagen, K. N., Falch, T., & Strøm, B. (2006). *Dropout from secondary education: The influence of grades, study programme and county* (SØF report No. 8). Trondheim: Norwegian University of Science and Technology.

Bøgeskov, L. (2003). Education in crisis. *Weekly Letter, 4*(3), 6-8.

Cope, P., Cuthbertson, P., & Stoddart, B. (2000). Situated learning in the practice placement. *Journal of Advanced Nursing, 31*(4), 850-856.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks: Sage.

Engström, Y. (1999). Activity theory and individual and social transformation. In Y. Engström, R. Miettinen, & R. L. Punamäki (Eds.), *Perspectives on activity theory*. New York: Cambridge University Press.

Fenwick, T. (2002). *New understandings of learning in work: Implications for education and training* (Report submitted at the conclusion of a Coutts-Clarke Research Fellowship). Alberta: University of Alberta.

Fereira, J. A., Santos, E. J. R., Fonseca, A. C., & Haase, R. F. (2007). Early predictors of career development: A 10-year follow-up study. *Journal of Vocational Behaviour, 70,* 61-77.

Flyvbjerg, B. (2004). Five misunderstandings about case study research. In C. Seale, G. Gobo, J. F. Gubrium, & D. Silverman (Eds.), *Qualitative research practice*. London: Sage.

Fog, J. (2004). *Using conversations as a starting point*. Copenhagen: Akademisk forlag.

Fry, R. (2003). *Hispanic youth dropping out of US schools: Measuring the challenge*. Washington D.C.: Pew Hispanic Centre.

Germjis, V., & Verschueren, K. (2007). High school students' career decision-making process: Consequences for choice implementation in higher education. *Journal of Vocational Behaviour, 70,* 223-241.

Giddens, A. (1990). *The consequences of modernity*. Cambridge: Polity Press.

Guichard, J., & Dumora, B. (2008). A constructivist approach to ethically-grounded vocational development interventions for young people. In J. Athansou, & R. Van Esbroeck (Eds.), *International handbook of career guidance* (pp. 187-208). Dordrecht: Springer Science.

Jorgensen, C. H., & Warring, N. (2000). Workplace learning and learning environments (Working paper 77). In Conference proceedings of *Working Knowledge: Productive Learning at Work* (pp. 10-13), December 2000, Sidney.

Kaufman, P., Alt, M. N., & Chapman, C. D. (2001). *Dropout rates in the United States: 2000*. Washington, D.C.: National Centre for Education Statistics, US Department of Education.

Kuczera, M., Brunello, G., Field, S., & Hoffman, N. (2008). *Learning for jobs: OECD reviews of vocational education and training Norway*. [PDF document]. Retrieved October 12, 2009, from http://www.oecd.org/dataoecd/45/34/41506628.pdf

Kvale, S. (1997). *The qualitative research interview*. Oslo: Ad Notam Gyldendal.

Land, D., & Legters, N. (2002). The extent and consequences of risk in US education. In S. Stringfield, & D. Land (Eds.), *Educating at-risk students: One hundred-first yearbook of the national society for the study of education* (pp. 1-28). Chicago: University of Chicago Press.

Lave, J. (1993). The practice of learning. In S. Chaiklin, & J. Lave (Eds.), *Understanding practice: Perspectives on activity and context*. Cambridge: Cambridge University Press.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Lee, V. E., & Burkam, D. T. (2003). Dropping out of high school: The role of school organization and structure. *American Educational Research Journal, 40*(2), 353-393.

Lyngsnes, K. (2003). Responsibility for one's own learning—Principle and practice. (Doctoral dissertation, Norwegian University of Science and Technology).

Lødding, B. (2008). That's why it's called apprentice. In E. Markussen, M. W. Frøseth, B. Lødding, & N. Sandberg (Eds.), *Competence as a consequence of choosing out* (Rapport 13/2008). Oslo: NIFU STEP.

Markussen, E., Froseth, M. W., Lødding, B., & Sandberg, N. (2008). *School leaving and competence*. Oslo: NIFU STEP, Report 13/2008.

Markussen, E. (2008). School leaving and competence. In E. Markussen, M. W. Frøseth, B. Lødding, & N. Sandberg. (2008). *School leaving and competence*. Oslo: NIFU STEP, Report 13/2008.

Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counselling psychology. *Journal of Counselling Psychology, 52*(2), 250-260.

Montecel, M. R., Cortez, J. D., & Cortez, A. (2004). Dropout-prevention programs: Right intent, wrong focus, and some suggestions on where to go from here. *Education and Urban Society, 36*(2), 169-188.

Natriello, G. (1997). Dropouts, school leavers, and truancy. In L. J. Saha (Ed.), *International encyclopaedia of the sociology of education*. Exeter: Pergamon.

Nielsen, K. (2003). When the students voice it. In I. K. Nielsen, & S. Kvale (Eds.), *The learning landscape of practice, learning through work* (pp. 219-236). Copenhagen: Akademisk Forlag.

Nielsen, K., & Kvale, S. (2003). Introduction. In I. K. Nielsen, & S. Kvale (Eds.), *The learning landscape of practice, learning through work* (pp. 11-15). Copenhagen: Akademisk Forlag.

Patterson, J. A., Hale, D., & Stessman, M. (2007). Cultural contradictions and school leaving: A case study of an urban high school. *The High School Journal, 91*(2), 1-15.

Pool, S. W. (2000). The learning organization: Motivating employees by integrating TQM philosophy in a supportive organizational culture. *Leadership & Organizational Development Journal, 21,* 373-378.

Rismark, M., & Sølvberg, A. (2007). Effective dialogues in driver education. *Accident Analysis and Prevention, 39,* 600-605.

Rogoff, B. (1995). Observing sociocultural activities on three planes: participatory appropriation, guided appropriation and apprenticeship. In J. V. Wertsch, P. Del Rio, & A. Alverez (Eds.), *Socio-cultural studies of the mind*. Cambridge: Cambridge University Press.

Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J. P., Duarte, M. E., Guichard, J., Soresi, S., Van Esbroeck, R., & Van Vianene, A. E. M. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of Vocational Behaviour, 75*(3), 239-250.

Seng, C. V., Zannes, E., & Pace, R. W. (2002). The contribution of knowledge management to workplace learning. *Journal of Workplace Learning, 14,* 138-147.

Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher, 27,* 4-13.

Strauss, A., & Corbin, J. (1996). *Basics of qualitative research*. London: Sage Publications.

Säljö, R. (2000). *Learning in practice: A socio-cultural perspective*. Stockholm: Prisma.

Taylor, A., & Watt-Malcolm, B. (2007). Expansive learning through high school apprenticeship: Opportunities and limits. *Journal of Education and Work, 20*(1), 27-44.

Van Woerkom, M. (2003). Critical reflection at work: Bridging individual and organizational learning. (Doctoral dissertation, Twente University).

Vygotsky, L. S. (1978). In M. Cole, & S. Scribner (Eds.), *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.

Wilbrandt, J. (2003). Apprentices in movement—between school and workplace and from apprentice to skilled worker. In K. Nielsen, & S. Kvale (Eds.), *The learning landscape of practice, learning through work* (pp. 201-217). Copenhagen: Akademisk Forlag.