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## The workplace as learning environment in early childhood teacher education: an investigation of work-based education

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### ABSTRACT

The article focuses on the workplace as a learning environment in work-based early childhood teacher education in Norway. The main question is: Which understandings of the workplace as a learning environment are to be found in regulations and policy documents, among students and among staff managers? Taking as the point of departure, a theoretical framework based on J.A. Raelin's model of work-based learning, findings from text-analysis, group interviews, and questionnaires are presented. In early childhood teacher education regulations, the relevance to the field of practice is stressed, but little attention is paid to the learning environment at work. Students have very different experiences of the workplace as a site of learning as some get much support, while others experience resistance. They experience their role as students as a process of change, and it varies to which extent the workplace is able to receive and make use of their new knowledge. Knowledge is brought back in different ways by the students. Correspondingly, staff managers also express different opinions as regards the involvement of the workplace. A prominent feature in both groups' answers is the focus on the individual level. In line with Raelin's model, the discussion identifies the absence of focus on the community of practice as a main challenge. The conclusion points out that in order to develop work-based education further, specific recognition of the importance of the workplace as a learning environment is needed.

### KEYWORDS

Learning; workplace; work-based education; learning environment; community of practice

### Introduction

In this article, we will explore some fundamental ideas and opinions of the workplace as a learning environment in work-based early childhood teacher education (ECTE) at Oslo and Akershus University College (OAUC). We will do this by taking as our point of departure general theory about work-based learning and about the worksite as a learning environment. This will form the theoretical framework for an investigation of understandings of the workplace as learning environment which are to be found in regulations pertaining to ECTE in Norway and which are expressed in our empirical data. By combining different

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approaches such as document analysis, interviews and questionnaires, we wish to illuminate the central question: Which conceptions of work-based learning and the workplace as a site of learning are to be found in (1) regulations and policy documents, (2) among some students, and (3) staff managers partaking in work-based ECTE? By concentrating on these three, we seek to gain some more insight into a complex part of work-based ECTE.

Are the fundamental ideas of learning at work carried out in practice, in the experience of students and staff managers? Is it possible to identify barriers to learning at work? If so, how are they to be overcome? These questions will be part of the discussion of our findings. The discussion will draw on Joseph Raelin's comprehensive model of work-based learning. We have chosen his model as it highlights several perspectives we see as essential to learning at work in the context of kindergarten. The categories of the model also stress the relationship between individual and community, a factor we regard as crucial.

In accordance with this model, this article is based on a complex view of learning which includes a wide array of elements such as participation, acting, critical thinking, reflection, acquisition, study, creativity, performance, transfer, and experience. Learning as participation has been a predominant paradigm in workplace learning (Billett, 2010; Engeström, 2011; McNamara, Jones, & Murray, 2014, p. 15). We agree that participation and situated learning (Lave & Wenger, 1991) are of vital importance to work-based education. However, we argue that it is necessary to maintain an understanding of learning that leaves room for a multitude of approaches to learning in order to achieve a successful work-based education. Thus, the workplace should be a resource for thinking, acting, and reflecting (Brookfield, 1991, p. 137) and different approaches – such as inquiry as stance (Cochran-Smith & Lytle, 2009), individual agency and a focus on the connection between organizational learning and individual learning (Eteläpelto, 2008), boundary-crossing (McNamara et al., 2014), and transfer (Eraut, 2014), just to mention some – should be applied.

Based on our empirical data, our hypothesis is that there is a need for recognition and increased attention as regards the workplace as a site of learning. In the last part of our article, we discuss possible measures and prerequisites for this goal to be attained.

## Methodological approach

In this qualitative study, we have combined different approaches. This choice reflects the complexity of the topic, as our wish is to explore different perspectives, and possibly draw a picture of an essential part of ECTE work-based education at OAUC. The work<sup>1</sup> is based on text-analysis of policy documents and programme plans, 10 focus-group interviews with teachers, students, coordinators, and staff management, 4 observations of field classes, and 1 questionnaire answered anonymously by 23 students in fourth term.<sup>2</sup> All teachers involved in our work-based education and all students in the two selected classes were invited to partake in the study. The empirical material consists of a random sample of students (in two different classes) and teachers. Members of staff management in kindergartens were selected because of their positions in kindergartens of the students interviewed.

In this article, we present results from the questionnaire and two focus-group interviews, one with students and one with staff managers.

The questionnaire consisted of 13 questions relating to 4 main themes: Knowledge, learning environments, roles and loops of learning. Interviews and answers have been transcribed and analyzed using category analysis (Strauss & Corbin, 1990). The answers were grouped

by topics generated through individual readings and common discussions of analysis. In this analysis, we have concentrated on students' experiences and possible emerging patterns. The aim has been to study differences and patterns in some students' experiences and opinions as regards the workplace as a learning environment. As a relatively small qualitative study, it has clear limitations. However, we find it useful in order to shed light on a fundamental issue in work-based learning – not only in ECTE, but in education in general: The common challenge of educational institution and workplace to support students' learning at work.

### **Work-based learning and education**

The starting point of work-based learning and education may be defined differently. In a broad sense, work-based learning is part of the very old tradition of apprenticeship which goes far back into history (Bailey, Hughes, & Moore, 2004, p. 3). In a more restricted sense, it is associated with institutionalized education in modern times. However, theory of work-based learning has been developed both within a purely working-life context and within a more specific educational setting. In the US, work-based learning was associated with vocational education by legislation early in the twentieth century (Bailey et al., 2004, p. 11). In the 1990s, research emerged that contributed to the notion that vocational education could serve broad academic ends (Bailey et al., 2004, p. 12). Psychological theories of learning in this period supported work-based learning by pointing to the importance of context and social interaction in learning. This has contributed to a wide variety of theories, reflecting and stressing different perspectives as regards learning (see above). It is important to notice that these theories also influence the goals to be achieved. It is often pointed out that the goal is to enhance the productivity, success, and competence of organizations and companies, thus many theories are closely connected to an approach based on change and to market economy theory. As Joseph A. Raelin writes, the organization needs to get smarter faster, thus the rate of learning should equal or exceed the rate of change (Raelin, 2008, p. 1). However, in an educational context, preoccupied with social professions and related to public organizations, the focus seems to be somewhat different: While the workplace as a learning organization still is seen as important, the student and her/his process of learning is placed in the centre of attention and the economic aspect fades. In an educational context, work-based learning may be understood as a specific educational strategy to enhance the traditional objectives of schooling, such as teaching academic skills and preparing students for work (Bailey et al., 2004, p. 6). We believe this to constitute an important part of the distinctive basis of work-based learning as it is applied in education. In addition, we would like to point out that there may be differences associated with the role played by teachers in formal educations and in internal work-based learning taking place at the worksite. Still, all forms of work-based learning may draw on numerous similar useful sources. The close connection between work and learning is essential to all forms of work-based learning: Learning is seen as derived from work<sup>3</sup> in some form. Thus, every theory about work-based learning presupposes a view of learning as situated and context-dependent. Metacognition is fundamental in work-based learning as it is characterized first and foremost by conscious reflection on actual experience. Learning may arise spontaneously when people try to solve new and interesting problems. This implies that work-based learning does not necessarily specify the methods of practice in advance – methods may be developed in parallel with work practices. It also affects forms of instruction: Instruction tied to a specific set of tasks

may be provided prior to, during, or after the performance. In addition, this influences the view of theory: Practitioners are seen to build theory as they consciously reflect on challenges of their practice, engage in problem posing, action, evaluation, and reflection (Schön, 1991).

While the apprenticeship model is very useful in work-based learning, providing possibilities that are inaccessible in conventional classroom education, Raelin notes that this model needs to be modified in modern society: the idea of competence has to be replaced with the metacompetence of learning – that is, learning to learn (Raelin, 2008, p. 13). This is in accordance with the very broad view of *learning as a way of being* that is supported by traditions underlying work-based learning.

He also mentions three critical elements in work-based learning process: (i) Learning is acquired in the midst of action and dedicated to the task at hand, (ii) knowledge creation and utilization are seen as collective activities, making learning everyone's job, (iii) learners demonstrate a learning-to-learn aptitude, which enables them to question underlying assumptions of practice (Raelin, 2008, p. 2).

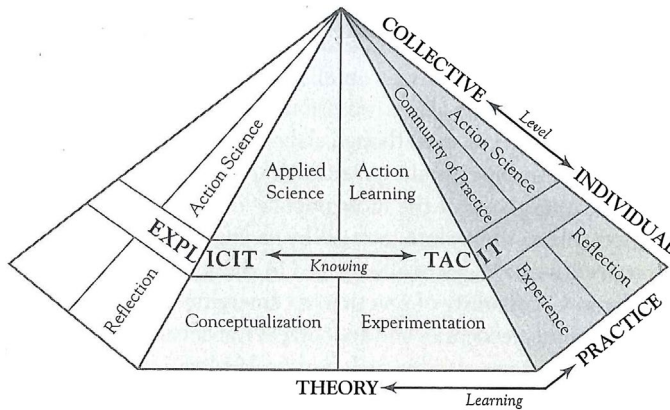
Raelin (2008) introduces a comprehensive theory of work-based learning. We will use this as the starting point for our investigation of the Norwegian ECTE model.

We recognize that there are some distinctions and differences as to the actual frameworks and demands of learning within work and within education. In Norway, every education is subject to regulations and legislation as regards, e.g. learning outcome and certification. Thus, within an educational framework, some modifications probably will be needed, as some considerations have to be made. These may, or may not, restrict the use of work-based learning perspectives.

Still, we want to illuminate our work-based ECTE by this theory, as we see it as a tool for exploring to which extent our ECTE model is in accordance with fundamental ideas and theories of work-based learning, and as a possible means to reflect upon attitudes and practices on behalf of university college and workplace alike.

It should be added that there is little research specifically dealing with work-based learning in ECTE. In a Norwegian context, it is almost non-existent, partly due to the fact that it was introduced only seven years ago. In addition, work-based learning theory typically has an interdisciplinary focus.

Raelin (2008) first points out that two dimensions must be incorporated: (1) Theory and practice modes of learning. Theory makes sense only through practice, and practice makes sense only through reflection as enhanced by theory, thus they have to be blended. (2) Explicit and tacit forms of knowledge. Tacit knowledge may be teachable. Theory is not preordained, but constituted as a living construction – only in this way will it be able to capture the useful ingredients of the performance. For this reason, he maintains that the construction of theory might be more apt during or after rather than before the experience. Further, he distinguishes between work-based learning as an individual property and as a collective property. On the individual level, he introduces four learning types: conceptualization, experimentation, experience, and reflection. At the collective level, he focuses on learning processes in the company of others and four forms of knowledge: Applied science, action science, action learning, and community of practice. His model shows the need for bridging the gap between explicit and tacit knowledge and between theory and practice. It aims to illustrate the comprehensive interplay between the types of knowledge and the different modes of learning at – and between – both levels of activity (individual and collective). Intersections are required in order to achieve comprehensive learning (Figure 1).



**Figure 1.** Raelin's model of comprehensive learning in work-based learning. Source: Reprinted by permission from Raelin (1997). Copyright © 1997, The Institute of Operations Research and the Management Sciences (INFORMS).

Finally, Raelin emphasizes that work-based learning as a framework serves to bring together a number of otherwise disparate learning processes and strategies. By integrating these processes, he maintains that we gather insight into the dynamic interplay of forces that can impede or facilitate learning in the workplace (Raelin, 2008, pp. 63–81). This is of special interest to our study as we concentrate on the part played by the workplace in Norwegian model of ECTE.

### **Norwegian kindergartens as workplaces and sites for work-based learning**

The workplace naturally constitutes the core of all work-based learning. Still, we have to recognize that workplaces are differently equipped to facilitate and achieve learning. Thus, there is a need to examine kindergartens as workplaces in order to establish some constitutive elements relevant to learning perspectives. On a fundamental level, kindergartens are defined as – and are under an obligation to be – learning organizations by administrative regulations (Ministry of education and research [MER], 2011). Raelin suggests that work-based learning can be seen as an ‘engine’ for transforming an organization to be receptive to learning (2008, p. 33) and this may serve to strengthen a work-based education approach and its usefulness for the field of practice. A learning organization may be characterized by internal structures and processes which are marked by experimentation, flexibility, and change – in order to accommodate new information and knowledge.

We will take a closer look at some central features of kindergartens in general as sites of work with respect to learning and learning processes. We will make use of the following main categories: work, knowledge, and employees/relations. These categories are chosen because we see them as capturing the most significant elements attached to learning at work: activity (work), agents (employees), and aim (new knowledge, dissemination of knowledge).

#### **Work**

The *content of work* is expressed in a very broad sense in the regulations by this formulation: ‘The kindergarten shall ... safeguard the children’s need for care and play, and promote



learning and formation as a basis for an all-round development' ... 'the kindergartens shall contribute to well-being and joy in play and learning ...' (MER, 2011, p. 7). This involves a lot of quite different activities and tasks, directed to take care of all the needs of children present in the kindergarten. The work is characterized by a great scope and a rich variety, including tasks such as feeding, changing of diapers, all kinds of pedagogical and disciplinary activities, organizing and participating in play, outdoor life, and philosophical conversations on existential matters. In a country in which a great majority of children attends kindergarten approximately 8 h a day, it goes without saying that the work greatly influences the whole life and childhood of a great number of people.

The *structure of work* is to a large extent based on some daily routines consisting of meals, play, and different activities. Thus, the structure of work is linked to what is commonly understood as the needs of children. However, what is most characteristic of 'life in kindergarten' probably is that children's life takes place within these visible structures all the time, creating an intricate and complex structure of many parallel courses of events which the employees consecutively have to pay attention to and act upon. This situation also implies that professional discretion plays a very important part in the work. Perhaps the most characteristic feature of work in kindergarten is the mix of what traditionally is seen as merely 'routine work' (making meals, changing diapers, dress children) and the 'pedagogical work'.

### **Employees/relations**

The group of employees in Norwegian kindergartens consists of assistants, pedagogical leaders, and staff managers. They have different educational backgrounds. Some lack any specific education, some have vocational education as child- and youth worker and approximately 1/3 of the total numbers of employees are early childhood teachers. As a result, nearly all kindergartens in Norway have a mix of employees as regards educational background. The last ten years the importance of learning in relation to specific subjects such as language and mathematics has been underlined by the authorities. This indicates both the possibility of and the need for learning and dissemination of knowledge at work. Several tasks in daily work with the children are shared among the staff, independently of educational background. All are involved in daily work such as arranging meals, giving care, partaking in activities and conversations, and looking after the children. However, some tasks are more or less reserved for the educated employees, such as special parents-conversations, management, and responsibility for the pedagogical activity. This division of labor is in part suggested by law, but there is no fixed order, as many kindergartens do not have educated staff to take care of such tasks. In our ECTE model, it is a prerequisite that kindergartens should have educated staff, in order to secure the workplace as a learning site for our students.

### **Knowledge**

Interestingly enough, even though work in kindergarten is of great significance to children's lives, the status of knowledge may vary among employees as well as among outsiders. As it is possible to be employed in a kindergarten without any specific education, some may infer that practice is all that is needed to do a good job. While most people agree that you

need an education for pedagogical work, this is not as evident as far as routine work is concerned. Thus, the interesting question is: What kind of knowledge is needed in order to carry out the ‘routine part’ of the job? How does this knowledge come about? How can you learn it? Is there a difference – as to how you feed a child, talk with her, help her with her clothes? And, if so, in what way is it connected to knowledge? What is the specific relationship between knowledge and profession practice in this case? We want to illuminate these questions because we think that the ‘mixed’ work affects the challenge of linking practice and theory. We also suggest that the distinction between tacit and explicit knowledge is important to acknowledge in relation to these issues. In work-based theory, it is maintained that even tacit knowledge may be taught (Raelin, 2008) and we would like to add that it might be made easier in a work-based context, due to the closeness between action and (possible) reflection. In a Norwegian context, teacher education research often reflects a view of theory and practice based on a traditional approach that tends to separate the two as regards knowledge (Hammerness, 2013, p. 57). This separation has been a special challenge in teacher education. Different attempts have been made to overcome this dichotomy (Cochran-Smith & Lytle, 2009). While recognizing that knowledge has different aspects, we would like to stress the unity of knowledge and thus the need for a holistic approach, not tearing knowledge into pieces but keeping it together in order to achieve comprehensive learning. In accordance with concerns expressed in recent regulations in Norway, we have chosen to use the terms ‘research-based knowledge’ and ‘experience-based knowledge.’

This issue may also affect the definition of relevant and valid knowledge in profession education. From an educational point of view, it is of course of vital importance that the educational institution is able to define relevant knowledge. Still, as regards work-based learning, the worksite’s involvement in this process is not to be overlooked.

### Norwegian policy documents

The central documents regulating ECTE in Norway are the Regulation for Framework Plan for ECTE and the national guidelines. In addition, programme plans are developed locally by each institution offering ECTE. The regulation and the guidelines are valid for all education models. The work-based model is subject to the same demands as the full-time model as regards admission, content, and evaluation. The kindergarten act and the framework plan for the content and tasks of kindergarten (MER, 2011) is mentioned in the regulation as a law/plan the education should *relate to* (MER, 2012, p. 1). Even though this is not elaborated on, it implies that these documents are relevant too.

Which understandings of (learning and) the workplace as a learning environment are to be found in these documents? In the following, we will first examine the texts and then discuss our findings in the light of Raelin’s model of work-based learning.

*The Regulation:* The regulation mainly deals with aims, learning outcomes, structure, and content. As it is a rather compact document, one should not expect a very extensive mention of learning as such or learning at work.

Under ‘aim’ in §one, we find the most explicit mention of the field of practice and thus, indirectly of the workplace: The aim is to secure a binding interaction between educational institution and the field of practice. Further, it is said that the education should be based on research-based knowledge as a foundation of profession practice and profession development and contribute to critical reflection and understanding of the profession. It may be



inferred from this that the field of practice, including the workplace, mainly is interpreted in terms of profession and research, leaving little room for experience-based knowledge arising from the field of practice.

§two deals with learning outcome and offers a view of learning as defined in terms of knowledge, skills, and competence. This may be interpreted as a complex view of learning which recognizes the interplay between the three as necessary. Still, the listing of different learning outcomes reveals a ‘traditional’ division: Knowledge is linked to facts and subjects, whereas skills mainly are concentrated on practical measurements and the application of knowledge. General competence is centred around broad, overarching perspectives connected to ethics, leadership, and language. As a whole, this paragraph points to a comprehensive learning outcome that in fact is totally dependent on the field of practice – because many of the components mentioned can only be learned from practice and practicing. Among the examples are: (i) administer and organize children’s play, learning, and development, improvise in play, learning, (ii) stimulate and support children and their abilities, (iii) promote children’s creative processes and experiences, (iv) carry out pedagogical work and direct and supervise staff. This connection to practice is in agreement with the overall focus – expressed through the recurrence of the terms and the subject – on ECTE as a profession-oriented education. This is stressed throughout the document (MER, 2012, pp. 1–4). The regulation thus points to much knowledge that can only be obtained through practice for full-time students. For part-time students, this will also involve the workplace.

Another key-term that characterizes the regulation is *research-based*. This term occurs four times, it is associated with education (p. 1), with knowledge (pp. 1, 3), and with the areas of knowledge (p. 3). This term has been much discussed in the Norwegian context of teacher education research and there is no agreement as to its meaning and implications. Few indications are given in the text as to which understanding is presupposed here. On page 3, there might be a possible – but still uncertain clue: ‘The areas of knowledge and the major areas of study should be research-based and rooted in a research-active milieu.’ If interpreted as further emphasis, the implication would be that the two terms serve to express the same – that is, the teachers preparing and offering lessons should both themselves engage in – and base their teaching on – research. Still, the common use of ‘and’ would normally indicate an addition. If so, then the document distinguishes between ‘research-based’ and ‘research-active milieu’, and ‘research-based’ would imply something else. However, as referred to above, the aim incorporates this term together with the term ‘profession orientation.’ The regulation therefore seems to emphasize these two. In addition, education and the field of practice are closely connected in §one concerning the aims of the education.

### **The national guidelines**

This is a more comprehensive document containing general information about organization and structures as well as detailed information about each area of knowledge. We have restricted our analysis to the first, general part of the document as we are looking for the general view of learning expressed. The first part deals with aims, responsibility of the educational institution, organization of the education, the structure and content of the education, and finally, hallmarks of quality in ECTE. The aim of the national guidelines is to secure a nationally coordinated ECTE that fulfills the quality demands (MER, 2012, p. 1). The terms ‘profession orientation’ and ‘closeness to practice’ are introduced at the outset

as distinguishing features of ECTE. Practice and theory are to be integrated, the research-based perspective and the profession focus is stressed. As far as organization is concerned, the aim is to offer an education model in which subjects and practice are closely linked. This perspective is emphasized throughout and may be interpreted as a recognition of the importance of practice. Again, it is repeated that the educational institution is responsible for a binding cooperation with the field of practice. ECTE should include 100 days of practice, and it is possible to increase this number of days for each individual college. On page 8, the term 'learning arena' appears for the first time and it is applied to the field of practice. In the following text, mention is made of the experiences and questions from the field of practice. These ought to be integrated into the different areas of knowledge in education (MER, 2012, p. 8). It is pointed out that students are to partake in pedagogical practice in kindergartens by exploring and observing, and they should be trained in critical reflection as regards practices in kindergarten.

To sum up: There is a common focus in the regulations and in the guidelines as far as terms and content are concerned. The overarching aims are closely connected to the relationship between educational institution and practice field, and the importance of the profession field is stressed. There should be a binding cooperation between college and kindergartens. This indicates a recognition of the field of practice, and thus indirectly, of the workplace, too. Still, almost no attention is paid to the learning environment at work, and no mention is made of the special requirements needed for the work-based ECTE model. What the students are going to experience in their practice is described in detail, but how this is to come about and by what means, is not explained. Thus, one could say that these documents reflect a very positive and including attitude toward the field of practice and experience-based knowledge. Still they are too vague in their attempts to express what is needed. The workplace as a learning environment is indirectly present, but the issue of learning at work, not only in practice, is not really addressed.

### **Opinions regarding workplace as learning arena among students and staff managers**

In this section, we will present our findings from the questionnaire and the two focus-group interviews with students and staff from the same municipality. We structure this section in three main parts: The students' explanations of what they learn at work, students' and staff managers' view of learning at work, and finally profession concepts at the workplace and in the educational institution. Each part is discussed according to Raelin's (2008) division into individual and collective level and tacit and explicit knowledge, based on his model for comprehensive learning.

#### ***Learning at an individual level linking theory to practice***

In the questionnaire, the students were asked what they learn primarily at work and at campus. The students' answers are very consistent regarding what they learn at the educational institution and what they learn in the field of practice. They express that they learn theory in the lectures at campus and practice in kindergartens. In the further presentation, we therefore use theory when the term is related to knowledge presented in educational settings. They also express that they connect their practical experience to the theory which

is presented. In the focus-group interview, one of the students explains: 'I'm watching an imaginary film when the teachers lecture.'<sup>4</sup> In the questionnaire, we find expressions like: 'The theory I learn makes me more conscious in my practice' and 'I can involve the theory directly in my practice.' In all these examples, students link theory to their practice. They use formulations like they 'see theory' or they 'use or experience theory,' or 'they try out theory' in their everyday practice when they express learning at workplace.

As Raelin (2008) points out, theory makes sense through practice and practice makes sense through reflections enhanced by theory. One interpretation is that they use theory to conceptualize and make their tacit experience-based knowledge explicit. They understand theory while thinking about specific situations in their own practice (Raelin, 2008). Some students even articulate that their new theoretical knowledge makes them more critical to their practice: 'New knowledge gives me background for asking critical questions' and 'I am more conscious and critical to my own practice and my kindergartens practice.'

Our interpretation is that theory presented at campus links closely to their experiences from the practice field according to the regulations (MER, 2011). Theory gives tools for planning activities, analyzing their behaviour with children, and for reflections. This may justify their own practice or they may rethink and change their practice. Asking critical questions entails starting questioning tacit knowledge. According to Raelin's (2008) model, most of these learning activities take place at an individual level. Most students relate to their own experiences and their own reflections when it comes to connecting theory to practice. Their long experience from work in kindergarten makes up a great source of narratives they reflect upon. For some students, these critical reflections cause confusion and even conflicts as regards both their own and their kindergarten's practice. They express their own learning and mostly at an individual level. Some articulate how they change behaviour, but the explanations are very divergent when it comes to how their learning affect learning at the collective level. In the next paragraph, we will expand our students' descriptions of their workplace as a learning environment.

### ***Students' and staff managers' view of learning at workplace, disparate prerequisites for learning***

Some students express that staff members are attentive and supportive. They show interest in their student's new knowledge and motivate them by providing opportunities to test out ideas. Some students introduce new ideas to colleagues and initiate discussions. These students report that they are able to exert influence due to theoretical reflection and their ability to use more professional vocabulary. One of the students' explains:

I have a lot of opportunities to try out what we learned at campus. I have engaged colleagues (not all). I'm not afraid of trying out new ideas, and I have meetings with other assistants and my staff at my ward in which we discuss practices and performances.

We interpret this statement as an expression of a mutual engagement. According to Wenger, practice at workplace exists because participants are engaged in actions whose meanings they negotiate. Mutual engagement is a crucial matter when it comes to membership in a community of practice (Wenger, 1998, p. 72). Our opinion is that learning takes place also at a collective level for these students. According to Raelin (2008), learning at a collective level occurs in a community of practice when meanings are negotiated, when staff members

as a group have ownership to experiment with new ideas and reflect in common. In this way, knowledge is made explicit for the whole group.

Other students report no support from staff members in their learning processes. Examples of negative experiences are expressions like: 'There is no academic environment in my kindergarten, and I have no space as a student' and 'There is no interest for my education and learning process from my staff manager.' Because these students feel no support, their learning processes are their individual responsibility. The learning is thus experienced as taking place only at the individual level.

Our group of students are part-time workers and spend three days at workplace. Many of them experience being part time at their workplace as difficult as regards their participation in the community of practice. They feel they lose what happens those two days they are away, and at work, tasks are difficult to fit into the kindergarten's agenda. Tasks, that may entail additional work for other employees and may imply deviation from daily routines, again leads to displeasure for some. One of our students explains that her relationship with other staff members has changed, and she experience that 'Other assistants understand you as a threat because you acquire more and more academic knowledge and you bring these new ideas back to work. You fall between being a student and an assistant those three days at work.' Other students explain how they change their attitudes and how new knowledge brings them into conflict with their workplace's practice, because they do not manage to exercise influence and negotiate meaning in the community of practice (Wenger, 1998). For some students, it seems that neither workplace nor students are aware of these new roles and positions at work. They face opposition.

In the focus-group interview with staff managers, they praise their students and their progress, as one says; 'To see their changes in attitudes is really fun.' They explain how their students come up with new knowledge in discussions with their colleagues and hopefully can inspire. None of them mentions learning at a collective level. They have delegated the responsibility for tutoring to another staff member, and this tutoring take place isolated from colleagues. They use phrases like they help their student with tasks and to understand concepts. They express a very student-centred perception of this work-based education. The situated perspective on learning and an attitude to lifelong learning seems to be absent, and we find no vision of kindergarten as a learning organization. One of the staff managers is definitely not aware of this when she claims, 'OAUC has to remember that the students are assistants 3 days a week, and too many tasks from OAUC cause trouble for the kindergarten and stress the students.' According to Raelin (2008), these staff managers' view of learning is at the individual level. They help students with conceptions and experimentation, but they express no visions for students learning at a collective level.

In ECTE, we organize our students in smaller groups. These field classes are defined as important learning arenas. They meet once or twice a month at each student's workplace with a professional representative from the practice field and six times a year with a teacher from OAUC. Each student has a special responsibility when they host the meeting. These field classes are evaluated earlier in this the TPQ project (Kaarby & Lindboe, 2014). Both in the interview and in the questionnaire, students evaluate these groups as very efficient arenas for learning. They plan pedagogical activities and carry them out together. Afterward, they reflect both individually and as group. According to Raelin (2008), they get instructions both prior to, during, and after their performance, which increases the learning outcome. The group size and composition engage students in discussions. They share both their

experience-based and research-based knowledge, and when gaining entry into other workplaces, they expand their practice experiences, 'We see and experience other kindergartens, how they operate and function' is one example of answers from the questionnaire. Another student expresses why this is very valuable for her, 'We try out theory together, practice or rehearse working with others. We listen to each other, discuss and even agree to disagree.' A third one writes, 'I learn a lot of cooperating with various kinds of people, and be humble regarding others way of working. I learn when watching other ways of practicing, I'm crushing own prejudices to different ways of practicing.'

We understand this meetings at each other's workplace, as a learning community in line with Wenger (1998, p. 72). The community is characterized by a mutual engagement, a joint enterprise, and a shared repertoire. According to Raelin's (2008) model, we may understand learning both at individual and collective level. They prepare for their meetings and write down reflections individually, but in the meeting, they are acting collectively. They also move horizontally between theory, practice, explicit, and tacit knowledge. By reflecting together, they articulate their tacit knowledge and combine it with theoretical knowledge. They reflect, conceptualize, experiment, and experience. They use theory for planning actions and reflect theoretically upon these actions. Raelin (2008) denotes these as action science, applied science, and action learning. These meetings are well organized, they have a fixed structure and a common understanding of the task. The responsibility is distributed among the participants. In a broader sense of learning at workplace, learning in smaller groups with a fixed structure is well functioning, although there is a potential for improvement.

As mentioned, kindergartens are obliged to act as learning organization by administrative regulations (MER, 2011). In the light of this, we ask for requirements for learning at workplaces not only for our students, but also for the organization as a whole. Our findings indicate that there seems to be a lack of vision and structure for learning at many workplaces. We request a situated perspective on learning and an increased focus on learning as a collective activity.

### ***Profession concepts at workplace and in educational institution***

In the focus-group interview, our students expanded on their conceptions of transfer of knowledge to practice. They did so by mentioning specific cases from practice in which theoretical knowledge had made them change their practice. They gave very relevant examples, but there were no research- or profession-based concepts in their vocabulary. When asked how relevant they found research introduced in their everyday situations at work, this group of students surprisingly found research less relevant because of the concepts and vocabulary. Below is a part of the conversation between three students, S1, S2, S3, and the interviewer I.

**I:** How relevant is the research presented in ECTE for you and your work in kindergarten?

**S1:** Not all, may be.

**I:** No?

**S1:** No. Some concepts are very difficult to use in kindergarten when you talk with parents. You can't be sure that the person you are talking to understand what you are talking about and what you mean. You have to explain more. That is OK, but I think it is unnecessary. You don't need these concepts to explain what you mean.

**I:** But talking to the parents? What about your own thoughts?

**S 1:** I think the in the same way without these concept.

**S 2:** There are too many concepts, we don't need them all. We can use words that are more common.

**S 3:** I think concepts are important. I feel I'm more professional when using them. I think it is OK to use them, but to explain them in more common words is even more important. You can't speak in «codes».

**S 2:** Sometimes the language stops us from understanding.

As mentioned earlier, our workbased ECTE is based on research-based knowledge, and also oriented towards the practice field. The challenge consists of communicating research in a language relevant to the practice field in which 2/3 of the staff members lack professional education. Early childhood teachers should also be capable of communicating with parents. According to Eraut (2014, p. 68), practitioners need help to transfer learned formal knowledge into relevant situations, and over time, they will develop a new vocabulary and a profession language. From our point of view, it seems like they adjust their vocabulary to everyday language while avoiding educational or profession language. Everyday language may hide the differences in educational background and profession knowledge, but it also makes expressions more simplified and imprecise. This may impact on learning at both the individual and the collective level according to Raelin (2008). In the ECTE, teachers are increasingly engaged in research and academic writing. This may influence their language and vocabulary and make the difference in use of concepts even greater. When it comes to learning at workplace, both kindergarten and ECTE have a common interest in developing a profession vocabulary. From our point of view, this vocabulary must have the ability to make tacit knowledge explicit for all staff members and communicate both at an individual and a collective level, and it has to develop when the workplace emerges as a learning organization.

## Conclusion

We suggest that our findings, even though they are based on a small-scale study, may contribute to identifying important areas for further work concerning the workplace as a learning environment in ECTE. In the following conclusion, we will sum up our main findings, relate them to Raelin's (2008) model of comprehensive learning, and identify some fundamental challenges.

The policy documents have a common understanding and stress the importance of field practice. But the term field of practice is not identical to workplace as such. A situated view on learning appears and the importance of learning in the field of practice can be interpreted as longer periods of practice. The documents are vague when it comes to workplace as learning environment. This vagueness influences work-based ECTE. There are few guidelines as regards organizing learning at work. The division of responsibility and the nature of learning processes at work are not mentioned.

The students connect experience-based and research-based knowledge at workplace, and tacit knowledge is made explicit in this process (Raelin, 2008). They try out, experience and reflect, and build their personal knowledge. This occurs at an individual level (Raelin, 2008). There is a great variation in students' learning environment at the different



workplaces, which contribute different support and quality for our students. Some experience resistance and are perceived as a threat by other employees. At the individual level, our students have relatively similar conditions for learning, but the collective level fails which causes great differences. Students make use of concepts at work. Content of concepts are applied in experimentation, while more research-based conceptualizations are perceived as less relevant for their everyday life in kindergarten. The staff managers perceive students as valuable resources who bring in new knowledge which affects the workplace. But they are focused on their students only at an individual level, and the collective level is pushed in the background.

This implies a mutual responsibility for educational institution and workplace alike as regards definition of relevant knowledge, and it specifically requires that more attention is paid to the issue of learning at work, making use of a comprehensive model that includes a stronger focus at the collective level and on the community of practice.

Fundamental challenges are identified as regards the regulations. The regulations have to be more specific according to the work-based model of ECTE. The focus on the importance of the workplace as a learning arena is weak, and this may cause inadequate quality at the workplace as a learning arena both from OAUC and kindergartens involved.

There is a need for requirements and structures which ensure quality at workplace and more targeted work related to learning as a collective process at work. At an individual level, the workplace is a learning arena for our students, but there are great variations in support. Important findings are the opposition some students experience. How can OAUC and the kindergartens handle this problem? The roles our students are assigned by their staff members are crucial for how learning can occur at work.

There is a skewed and partly missing emphasis at the collective level and how it impacts on learning. Both ECTE and kindergarten may have focused primarily on each student and the individual level of learning, and do not take the consequences of what work-based learning really is and presupposes.

The field classes are very well appreciated both from students and staff managers (and teacher), but they are not integrated at workplaces and there is a potential for doing so.

## Notes

1. This article is based on a more comprehensive research project relating to several aspects of work-based ECTE which includes this material. This project is a sub-project of the project 'Teachers' Professional Qualification' (<http://www.hioa.no/forskning-og-utvikling/Hva-forsker-HiOA-paa/FoU-SPS/prosjekt>) In this article, however, we draw most heavily on text-analysis, the questionnaire, and two focus-group interviews, one with students and one with staff managers. The researchers have both been involved in teaching in this model at OAUC. This may represent a weakness in our study, as it may make sufficient distance difficult. On the other hand, one can argue that thorough knowledge is valuable as regards interpretation of the material.
2. The leader of the project, professor Anton Havnes, has conducted the two focus-group interviews and contributed in the preparation and the analysis of the questionnaire.
3. Our definition of «work» is in accordance with Malloch et al. 2010 (p. 6): 'An enabled purposive effort by an individual to initiate an activity or respond to an issue or problem in a range of situations for some perceived productive end. This emphasizes that the action is intentional engagement by an individual.'
4. Quotations are rendered and translated in line with the students' and staff managers' wording.

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