WORK-BASED LEARNING IN HIGHER EDUCATION: EXPERIENCE AND CHALLENGES OF LEARNERS, WORKPLACES AND INSTITUTIONS OF HIGHER EDUCATION

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ABSTRACT

In recent years, providing higher education in the form of work-based learning has become more important in the higher education (HE) policy and practice almost in all EU countries. Work-based learning (WBL) in HE should support the development of competences of self-guided learners and adjust the university education better to the needs of the workplace.

The study is based on two pilot projects of WBL in HE in Estonia: Tourism and Restaurant Management professional HE programme and the master's programme in Business Information Technology.

The model of integrative pedagogy, based on the social-constructivist learning theory, is taken as a theoretical foundation for the study. A qualitative study based on semi-structured interviews with the target groups. The data analysis used a horizontal analysis to find cross-cutting themes and identify patterns of actions and connections.

It appears, that the challenge for HE is to create better cooperation among stakeholders; the challenge for workplaces is connected with better involvement of students; the challenge for students is to take more initiative and responsibility in communication with workplaces.

Keywords: work-based learning, higher education, integrative pedagogy, Tourism and Restaurant Management, Business Information Technology

INTRODUCTION

Learning at the workplace in its various forms is expanding throughout the world for several reasons, primarily due to the rapid and extensive changes in work, which means that institutions of higher education (HE) have to meet increasingly higher expectations in preparing their students better for work. Contemporary institutions of HE have to give more attention to the new needs and forms of cooperation between workplaces and HE institutions to link better HE and scientific studies with the practical experience of the world of work [13].

It gives students opportunities to work and learn at the same time. Work-based learning and apprenticeship represent learning in two different institutional environments, and three parties are usually involved: the learner, the workplace and the institution of (higher) education. Education policy changes in Europe had led to the expansion of the share of learning at the workplace in vocational education but is also the latest trend in higher education.

As workplaces are increasingly recognised as important places of learning, there are a plethora of different ways used to integrate work and learning, the umbrella concept of which is work-integrated learning [9], [11]. The dynamics of work-integrated learning, including work-based learning, are characterised by changes like diversification of participants and forms of implementation, context specificity, flexibility in terms of time and place, the development of the learning culture at the workplace and the active participation of practitioners [9].

The expansion of work-integrated learning in HE has created challenges to all parties. The relatively limited experience in the HE of European Union states has highlighted numerous problems and issues. [6] and [12] highlight the following problems.

1. Lack of information and low participation of workplaces. It can be difficult for institutions of higher education to find partners among workplaces and learners.
2. Supervising at workplaces. Finding supervisors or mentors is difficult, and their qualification, competencies and time resources are problematic.
3. The small size of companies. Small companies are less capable of contributing to work-based learning.
4. Learners are overloaded and can easily drop out.
5. Lack of communication and cooperation between the parties. The reason for this may be the inadequate acknowledgement of interests as well as the absence of clear agreements between the parties (institution of HE, student, workplace, state).

Similar problems have also characterised apprenticeship learning in Estonian vocational education: workplaces have little interest in the initiation of studies; communications problems between schools and workplaces; unclear liability and

rights of the parties; the level of competencies of workplace supervisors is inadequate at times [15].

Two forms of learning at workplaces have been implemented in Estonia: apprenticeship and work-based learning. The latter means learning where a company sends its employees to acquire formal education. Thus, many people in Estonia who start their studies have prior work experience in some speciality, and they do not start as apprentices. Work-based learning in Estonian education is still being tested, and its concept and practices have not developed yet.

The outcomes of the pilot project implemented in two areas of higher education in Estonia are analysed in this article to understand the experience gained by the parties in work-based learning as well as the main challenges. There were two research questions based on the objective:

1. What experience do the parties (students, work-based supervisors or managers, lecturers/representatives of universities) have concerning work-based learning?
2. What are the challenges of the parties of work-based learning?

One of the analysed pilot projects took place in professional higher education in the speciality of tourism and restaurant business (hereinafter TuRe) and the other at the MA studies of business information technology (hereinafter BIT). The two pilot projects were selected to better understand work-based learning by comparing the experience in the two fields.

THE THEORETICAL FRAMEWORK OF WORK-BASED LEARNING

The theoretical framework is based on the integrative approaches of learning at school and at work, which means the achievement of learning outcomes by integrating theoretical and practical knowledge [14] and learning opportunities in two environments, although personally different, in individualised ways [1]. The learning potential of various environments is taken into account on the one hand, and the social constructivist approach is considered on the other hand, which sees the learner as the central operator and the creator of personal meaning from the experience of learning in two environments [10].

Guile & Griffiths have described five analytical models of organising learning from work experience: the traditional model, the experiential model, the generic model, the work process model and the connective model. [4]

1. In the case of the traditional model, the learners are thrown into the water and expected to learn by themselves or by way of traditional instruction. The environments of learning at school and at work are not related, and formal and informal learning are separated.

2. The experiential model is based on the theory of experiential learning of Kolb [8] and means reflection or re-thinking of work experience, the ability to generalise and connect the acquired knowledge with practical application. The model emphasises the cognitive development of the student and their general competencies through the learning of work experience. The approach, however, emphasises narrowly on the psychological approach to learning at work. The primary function of a school is to instruct the learner, and the workplace supports learner as an extension of the school [14].

3. The generic model is characterised by the conscious planning and management of learning based on work experience and assessment of learning outcomes. The role of the school is to intermediate and contribute to learning, support the development of general competencies, such as reflexivity and self-management of the learner.

4. The work process model emphasises the learner's holistic understanding of the work process and context [2]. The model is based on the social constructivist understanding that the learner's activities and development are closely connected to the dynamics of the working environment. They develop their ability to transfer competencies from one work context to another, which in its turn requires the integration of theoretical and practical knowledge, i.e. cooperation between the school and the workplace. The role of the school is to support the learner's reflection in and about activities.

5. The connective model is a normative one and describes the desired manner of organising work experience. The model proceeds from the social constructivist approach to learning. Learning is regarded both self-organising and a process of adapting to the culture of the workplace. The aim is to develop general competencies, which allow boundary crossing learning between different environments, such as the skill to discover, define and solve problems as well as the skill to generalise and conceptualise the activities of the workplace in light of theory. This means replacing the concept of knowledge transfer with a boundary-crossing approach to learning and knowledge. The central role of the school is to develop a partnership and create an environment for learning. [5]

The model of integrative pedagogics (Fig.1) developed by Tynjälä [14] is based on the connective model. The three pillars of this approach are theoretical/generalised, practical and self-regulative knowledge, which must be integrated organisationally and also substantially (Figure 1). Whilst formally acquired theoretical knowledge is general and universal; the practical knowledge acquired informally in a working environment may be tacit, concealed, i.e. difficult to phrase. Thus, theoretical knowledge must be reflected in the light of practical knowledge and vice versa, practical activity at the workplace must be conceptualised [14].
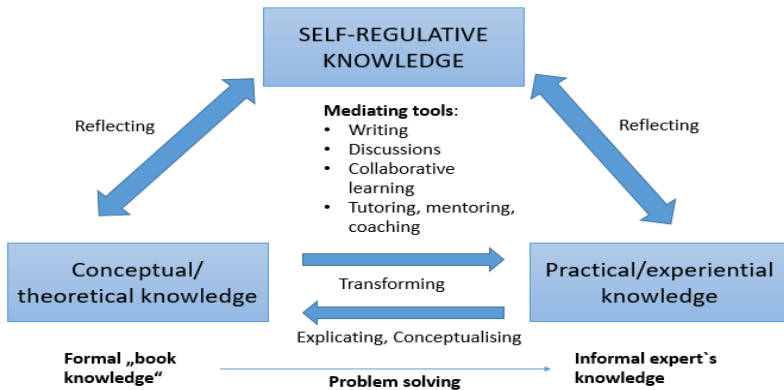
Figure 1. *Integrative pedagogics as a model of parallel learning at school and at the workplace (Source: Tynjälä, 2008).*

Self-regulative competency makes it possible to integrate and generalise theoretical and practical knowledge using pedagogical methods, such as reflection, analytical exercises.

All models are regarded as ideal types, which can be found in almost all European (vocational) education systems with some variations. The differences may manifest themselves in areas of activity [14] but also be caused by differences in workplaces.

METHOD AND METHODOLOGY

Qualitative research and the phenomenological approach were used, which is based on an analysis of the experience of the participants [3].

The sample consisted of the representatives of the three parties of the project: students, workplace supervisors or managers, and representatives or lecturers of institutions of HE.

Interviews with the representatives of the different parties and feedback from the students of institutions of HE were used for data collection. The interviews were used to examine the personal experience of the participants, as well as their opinions and attitudes.

A qualitative thematic analysis of data was carried out, which was aimed at finding the meanings and concepts in the data set. The data of the two institutions of HE involved in the project were analysed together. Cross-case (horizontal) analysis was used, which was aimed at comparing several cases, finding common topics and ascertaining activity, integration or other patterns [7]. From the

interviews, the text parts and meaning units related to the specific research questions were collected. After that, the answers and meanings were organised and grouped into narrower topics. The responses were generalised based on theoretical categories and interpreted according to the social constructivist learning approach and the model of integrative pedagogics [14]. The main topics, coming out from the text, include the experience gained by the parties in work-based learning; workplace supervising; teaching at HE institutions; challenges, and acquired competencies and proposals for the future activities to the parties.

RESULTS

The outcomes were divided into three parts according to the experiences of the students; workplace supervisors; teaching staff and representatives of institutions of higher education.

Experience of students of workplace supervision, learning, challenges and acquired competencies

In the students' experiences, the following topics emerged: problems in workplace instruction and roles of the supervisors; roles of the students; suitability of the workplace as a learning environment; factors that hinder and support learning; challenges for students; acquired competencies.

One of the key issues in the feedback given by students were the problems related to workplace instruction. They pointed out that supervisors lack interest in instructing, and sometimes the students have to guide themselves. The students wanted to see their supervisor as someone in charge.

I just completed the tasks, he checked it, and that was it. I can say that I was my own supervisor.

As this workplace supervisor assigned to me had worked in this area less than me, there wasn't much he could instruct me about.

The interviews also highlighted the roles of students, which were students as their own supervisors, team members, each other's motivators, each other's supporters, helpers, information communicators, developers of themselves. The Master's students pointed out that students have the most important role in work-based learning.

Regarding the suitability of the workplace as a learning environment, *t*he majority of the students found that the size of the organisation is not that important and that learning outcomes can be achieved at all workplaces. They wanted the organisation to support them when learning in a working environment.

We had to do some homework on human resources management. My small company doesn't have an HR manager, so I went to the HR Manager of the Drama Theatre and spoke to her.

Limited information about the institution of HE, difficulties in time planning, overlapping of the topics within-subjects and partial overlap with previous studies in a vocational school were highlighted as factors that hinder learning.

Information can only be obtained from the school by talking to the teachers. The movement and explanation of information is certainly something that should be firmly specified.

I came directly from a vocational school. I studied to be a chef, and a lot of the material we have here is very similar to what we had at the vocational school.

Cooperation between students was emphasised as an essential activity that supports the students in the learning process.

We all cry together when the going gets tough, and we're all happy together when things are going well.

There is a lot to learn from each other. One of us here has financial knowledge, and I know all about formalisation, and we can help others with our knowledge.

Time planning and reconciliation of working life and studies in terms of time and content, and working in a team with the other students and the supervisor were the main challenges for the students.

Everything is fine for as long as I can learn at work. It's tough to find time for studying when you work full time.

Above all, students have developed and acquired general competencies: time planning, teamwork, analytical abilities, critical thinking and self-management. Achieving competencies is not directly associated with work-based studies but rather with learning in an institution of higher education.

Experience of workplace supervisors of their roles, challenges and acquired competencies

The following topics were highlighted as a result of the interviews: roles of the supervisors; challenges; problems related to cooperation with institutions of higher education and students; acquired competencies.

The supervisors see themselves as learners who want to develop and learn from the students. The supervisor is often the one who assesses whether theory

suits practice, motivates and encourages the students. At the same time, they are responsible for the business results of their organisation.

The main challenges for the supervisors were understanding their role, planning their time and giving feedback. The positive side of giving feedback is that the supervisors must reflect on their work as supervisors. Still, the negative side is that they often lack the competency for providing feedback to homework in all fields.

If you ask me something about the hotel business, then I can't say anything, but I could tell you everything about catering.

The problems that emerged about workplaces and supervision were the following: the information and instructions given by institutions of higher education were limited, the learning outcomes were unclear, and the inclusion of supervisors in the studies was limited, it was challenging to find time to share with the students, and the supervisors and students changed.

Apprenticeship and work-based learning should be different, but I cannot see any difference at present. I don't understand whether I'm the supervisor of an apprenticeship or work-based learning.

The supervisor should be included more so that the things that are taught at school and the things that can be implemented in everyday work could be brought together more.

The competencies acquired by supervisors were revealed in interviews when they spoke about their roles. Supervisors have developed the competencies of learning to study, developing the people they instruct and analytical skills. The supervisors associated the acquisition of said competencies mainly with the fact that they had to give written, relatively detailed feedback about the subject passed on work basis to the lecturers of institutions of HE.

Experience of lecturers and representatives of institutions of HE gained from their roles, challenges, organisation of studies and the acquired competencies

The interviews revealed the following topics: the roles and competencies of lecturers, the organisation of studies, the suitability of the workplace as a working environment, challenges, acquired competencies.

Lecturers primarily saw themselves as the persons responsible for the theoretical side of the studies, advisers for the workplace supervisors, contact makers with workplaces in planning studies and preparing homework, and the advocates or advisers of students.

Lecturers should consider the individual circumstances of the students and monitor their personal growth more when organising the studies. They highlighted the small number of contact hours, the pileup of homework in the same period and additional work concerning the development of new learning tasks related to the learner's workplace. They also doubted whether homework should always correspond to the needs of the workplace.

As a lecturer, I should know this before teaching; I could at least prepare proper homework. It isn't always possible, and the question remains whether it should be prepared at all?

Positive examples of planning and carrying out studies were also mentioned.

We've discussed it with lecturers and organised the studies in such a manner that as much homework as possible is associated with the student's workplace. We've kept it in mind that it must be useful for the workplace, and the student must be able to learn. Students must read the theoretical material and connect it with practice.

The main challenges mentioned were motivating and supporting students, considering their personalities, connecting theory and practice.

I've read a lot of soft topics (philosophy), my base education is that of a historian and humanitarian. This new practice direction has been introduced now, and the new challenge is how to implement this philosophy at hotels and restaurants.

The competencies acquired by the lecturers were revealed when they spoke about the importance of connecting theory with practice and the need to get to know the students' workplaces. The competencies highlighted by the lecturers were orientation on the organisation's needs, organisational awareness, motivational and influencing skills.

DISCUSSION

Some of the experiences of the parties illustrate the lack of clarity in the responsibilities of two institutions: what should the responsibilities of the workplace and workplace supervisors be, how much should the institution of HE regulate the studies, what are the roles of the workplace supervisor, the lecturer and the student. There is still a lot of room for the development of efficiently integrated learning, and this sets several challenges for the parties.

The problems and challenges mentioned above overlap mainly with those identified in previous studies. A similar pattern has also emerged in the implementation of apprenticeship in higher education in other EU states [6], [12]. When the outcomes of this study were compared with the studies carried out in

Estonian vocational education, similar problems became evident in the following aspects: communication problems between schools and workplaces, the sometimes inadequate level of the pedagogical competencies of workplace mentors, and the need for relevant training [15].

Work-based learning in professional HE and at Master's level is planned according to the goals of the curriculum. The main difference between the two forms of study is that Master's students participate in solving actual tasks and carrying out projects at the workplace. At the level of professional HE, workplaces did not offer practical tasks to the students for the realisation of acquired knowledge. Hence, there is probably more potential for integrated learning in Master's studies than in professional HE.

The data do not suggest that this is a predominantly social constructivist learning pattern where the focus is on the learner who is responsible for learning and constructs a personal meaning from the experience of learning in two environments. As the differences between the parties are significant both in the context of learning (e.g. different workplaces) and personal resources (incl. time), the appearance of certain features of various organisational models of work-based learning can be observed in their experiences. Thus, the fact that students acquire essential general competencies related to self-management in the course of their studies refers to the general competency model as well as to the development of self-management competencies, and therefore also to social constructivist learning. However, the shortcomings in the cooperation between institutions of HE and workplaces indicate that there are elements of 'sink or swim' and the experiential model in the organisation of studies. This, in turn, refers to cognitive, rather than social constructivist learning.

However, the study also revealed factors that refer to the features of the integrative learning model [14]. For example, workplace supervisors feel like learners in the instruction and cooperation process; lecturers proceed more from actual problems at the workplace and ways of using the topics taught for solving problems at the workplace. It is important that the supervisors had a role in referring to the use of reflection, which is a central mechanism of integrated learning [6]. Thus, a supervisor's role includes giving feedback about the learner's activities, supporting the learner in the implementation of their ideas, sharing their experience and vision, explaining how things are done in practice, coordination and blending knowledge and practice into one.

CONCLUSION

Recommendations for the further development of work-based learning in HE are highlighted by comparing the outcomes of research and the social constructivist learning approach (Table 1).

Table 1. Recommendations for the development of work-based learning in HE Own source

Research outcome	Theoretical approach	Recommendation
Students did not associate the achievement of competencies with work-based learning, but with studying in an institution of higher education in the first place.	The activity and development of a learner are closely connected to the dynamics of the workplace. The primary role of the school is to support the learner's reflection in and about activities [2].	Work-based learning should be made more meaningful for the learner, the workplace and the institution of higher education.
It's difficult for students to reconcile working life and studies in terms of time and substantively.The learners usually do not connect learning tasks with the actual problems at the workplace.	Theoretical knowledge must be reflected in the light of practical knowledge and practical activity at the workplace must be conceptualised. This requires the preparation of a curriculum that takes learning in different environments into account [14].	Curricula should be developed in such a manner that theory and practice are even more integrated.
Lecturers should consider the individuality of the students and monitor their personal development.	The learner is the central operator and the creator of personal meaning from the experience of learning in two environments [10].	Learning should be individualised and more focused on the learner.

The limiting factors of this study were the small number of research outcomes, as the pilot project has not ended yet, and the students have not finished their studies. In conclusion, this study is important, as work-based learning in EU and also in Estonian HE is still in the initial stage, it has not been researched much, and the results have not been generalised. A broader study should be carried out, as work-based learning is a growing trend in the world and Estonian institutions of higher education are interested in continuing with this form of study.

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