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Guiding music students during workshop-based on-the-job learning

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Abstract

This article explains the realisation and impact of tutoring on learning through a new kind of on-the-job learning method in workshops led by professional musicians. The research is a qualitative case study involving 62 upper secondary Finnish vocational music students who participated in 11 workshops. The research data consist of a) workshop plans and personal learning goals written by the students before the workshops and b) reflective essays about experiences after the workshops. The data were analysed using theory-oriented content analyses.

In the workshop, the guidance-oriented interaction promoting learning starts at the beginning of the workshop with cooperative planning. The interaction between the students and the professional musician influenced the nature of the guidance – the professional musician was more like a colleague rather than a teacher. The students expressed that they had been able to influence the workshop goals in different phases and, thus, their professional competence had increased significantly.

In vocational institutes, it is important to observe different ways of realising on-the-job learning and to develop new models of action, like the workshop method, to promote the development of students' skills and competence.

Keywords – Instructional theory, Music, Workplace learning, Vocational education

Introduction - Workplace learning in Finnish vocational education

Increasing the interaction between educational organisations and work life was chosen as a developmental goal in Finnish education policy in the 1990s (Ilomäki 2001, 116–117; Jokinen et al. 2009, 19). The research reports having influence on educational targets dealt with workplace learning. Research agendas were dependent upon whether learning was examined from the viewpoint of an individual or community (e.g. Beach 1999; Billett 2001; 2002; Fuller and Unwin 1998; Illeris 2011; Lave and Wenger 1991; Wenger 1998; 2009), or from the viewpoint of the development of work organisations (e.g. Boreham 2002; Engeström 1998; Nonaka and Takeuchi 1995).

The basic assumption of workplace learning has been that learning is a social process and that the learning environment is crucial for learning (Illeris 2011, 8). The activities that the individuals engage in determine what they learn and the kind of guidance they get during the learning process determines the quality of learning (Billett 1999, 151; also 2001; Van Merriënboer and Sluijsmans 2009). Thus, learning is not only an individual but also a social process, and all learning is “situated” in a context. Learning includes both social interaction and individual psychological processing (Cairns 2011; Cremers et al. 2016; Illeris 2011; Lave and Wenger 1991; Wenger 2009).

Workplace learning has been defined as a process of “all learning taking place in workplaces or in relation to workplaces” (Illeris 2011, 1). In this regard, workplace learning has been viewed from two different perspectives: first, from the perspective of acquiring skills in the workplace and second, from the perspective of the workplace as a site where learning takes place (Weber 2013; Hager 2011; Butler 1999).

In the last few years, scientific communities have begun to regard the concept of on-the-job learning as promoting a student's skills through goal-oriented, guided work in workplaces (Jokinen et al. 2009, 9–10, 13; Tynjälä et al. 2005, 27; cf. Evans et al. 2011, 149–150). From a pedagogical viewpoint, on-the-job learning represents action that produces the knowledge and skills required for working in the trade

concerned: i.e. competence. On the other hand, the definition of on-the-job learning refers to the possibility of being able to modify and apply the gained competence into relevant action (Bowden and Marton 1998, 100; Colman 2009, 153) and the quality of such vocational education is defined by vocational skill requirements and assessment criteria (e.g. in Finland: FNBE 2014a).

The conceptions above and this research share the idea of learning in the functional community of a workplace. From the viewpoint of learning, it is important that students are able to participate in “student–expert alliances” in which they interact with real experts and participate in their problem-solving practices (Guile 2002, 272; Hakkarainen 2000, 93; also Hakkarainen et al. 2003).

In curriculum-based vocational education, on-the-job learning is carried out through preplanned periods during which students learn by working in a workplace for a certain period of time (FNBE 2014a). Traditional on-the-job learning periods have not been suitable to the education of musicians. These periods have not served the learning objectives of students (Purma 2012; Karhunen 2005), and organizing them has been challenging due to the specific nature of the field of music – for example, due to the small number of permanent jobs (Finnish Ministry of Education 2002; Tynjälä et al. 2006). Moreover, on-the-job learning has been claimed to have a negative influence on freelance musicians’ chances for employment (Finnish Musicians Union 2003; Vikström 2000). The starting point of this research project was to identify the challenges of musicians’ on-the-job learning during their education by utilising a new method, i.e., to carry out a workshop-based on-the-job learning opportunity and to evaluate it in versatile ways from various scientific viewpoints (see Table 1). The research themes were chosen from among the central subjects (in learning studies) in the 2000s. They also worked as guides for structuring the workshop.

In the first part of the research project (Virkkula 2016a), workshops were examined from the viewpoint of sociocultural learning (e.g., Wenger 2009). The second part of the project (Virkkula 2016b) studied how informal learning typical of popular and jazz music learning can be availed of in formal education (e.g., Eraut 2004), and the third part (Nissilä and Virkkula 2015) of the project was to explain how workshop work is connected to the problem-solving skills of students (e.g., Savery 2006). Fourthly (Virkkula 2017), factors connected to learning motivation were examined from the viewpoint of self-determination theory (e.g., Deci and Ryan 2014). In the fifth part of the research project (Virkkula and Nissilä 2014), one researcher widened his understanding of workshop learning through participatory observation. He acted as a musician in workshops with his teacher colleagues and professional musicians.

A connecting factor throughout the research project is that of a new kind of on-the-job learning through a workshop format. The research project explains the suitability of the workshop method for a new kind of realisation of on-the-job learning that would be applicable to work-life collaboration as part of vocational education.

Table 1. Research targets and main outcomes in the earlier parts of this research project.

Article	Research target	Main outcomes
I	How can communities of practice be utilised in a conservatory? How is a community of practice connected to the development of musicianship?	Workshops offer many levels of learning to develop musicianship, which then gives rise to recognizing the potential of sociocultural learning in music schools and developing learning environments according to the model of communities of practice.
II	How does informal learning enhance the development of musicianship? In what ways can informal learning be utilised at conservatory?	The research determined that learning in traditional classroom settings should be changed to allow for students to interact in authentic work-life projects. It should take into consideration the ways in which music is learnt outside of formal education. The findings show the potential of the workshop model in learning popular and jazz music.
III	What does the 7-step PBL method reveal about music students’ learning?	Both groups (musicians, engineers) benefited from solving problems connected to their work tasks by using systematic methods. The key to successful implementation of PBL lies in designing a learning environment that stimulates students towards self-directed, collaborative, and contextual learning as well as consistency in or alignment between

	How do international business engineers process the problems by the creative method of 635? What similarities and differences can be observed in two different professional groups and their problem solving processes?	all aspects of the curriculum, such as the problems used, the tutors' guidance, and the assessment employed.
IV	How the cooperation of a professional musician and conservatory students is connected to the students' learning motivation from the point of view of Self-Determination Theory.	The findings show that working with a professional musician supported autonomy, competence and relatedness according to SDT. Learner autonomy was confirmed by the students' strong attachment to the workshop work early in the planning phase. Learning autonomy was realised as a chance to decide about things autonomously and cooperatively with the others in the group. The students were given responsibility as soloists and accompanists when the process of growing to become members of the music community proceeded and the relatedness was strengthened. Students were committed to acting according to the demands of the performance project and strived for the best in their own playing.
V	How is work life learning connected to a vocational teacher's expertise? How is acting as a musician in the workshop connected to learning?	Cooperation with the professionals in the same field strengthened the teachers' competence. Cooperation opens opportunities to improve the quality of education. In-service teachers can develop curricula together and with work life professionals, develop plans for learning-at-work periods for teachers and students, develop plans for vocational demonstration tests, and prepare joint projects.

Guiding learning is central in developing a student's competence (De Bruijn and Leeman 2011; Ketelaar et al. 2012; O'Neill 2012). On-the-job learning should be objective-oriented, planned, guided and assessed training that takes place in a working environment (FNBE 2014). This research observes the guiding received by students in workshops and its connections to learning from the viewpoint of social interaction (Jokinen et al. 2009) and instructional design theory (Gagne et al. 1992; Merrill 2013; Reigeluth 1999).

Guidance during workplace learning

In this research, guidance means goal-oriented action, which aims to promote the student's on-the-job learning through social interaction. Broad meta-research of on-the-job learning in Finnish vocational education reported that social interaction was of great significance in learning both at the secondary and tertiary levels. Supporting and encouraging guidance strengthens the student's self-confidence. The tutor's positive attitude towards students prompts them to try their best (Jokinen et al. 2009, 268–271; Koramo 2011, 43).

In other connections as well the importance of quality in guidance have been emphasised in developing vocational education in Finland. Guidance tries to support the process of professional growth in versatile ways (Kolkka and Karjalainen 2013, 62–63; also Koramo 2011; Jokinen et al. 2009). Different studies have reported the change of a teacher's role, from a lecturer to a planner and tutor of many-sided learning as well as the organiser of planned guidance (Kähkönen 2009), as part of successful on-the-job learning (Koramo 2011) and towards activating students and supporting their participation in guidance (FNBE 2014b).

From this viewpoint, guidance in workplaces has been examined previously e.g. in air-traffic control training. The researchers (Koskela and Palukka 2011) aimed to explain the guidance methods employed in on-the-job learning and how the methods facilitated the trainee's development during various stages. In the beginning, the air-traffic control trainers used five different instructional strategies: giving orders, asking test questions, complementing speech production, providing instruction and giving information. These kinds of guidance interventions made the trainees pay attention to the key issues of the air-traffic controller's work in current traffic situations. When the training proceeded, it changed from being trainer-driven to trainer-guided. The relationship between the trainer and trainees became reciprocal and they discussed alternative implementations in work situations.

Harris et al. (2014) examined the additive and joint effects of trainer direction and the trainees' goal orientation in terms of learning on training satisfaction and knowledge transfer. The scholars observed that the trainers' clear directions and guidance, and the trainees' goal orientations in terms of their learning positively affected training satisfaction. The study suggested that educational organisations could boost the positive effects of trainer direction on trainee satisfaction and knowledge transfer by prioritising the trainees' goal orientations with respect to their learning.

A student's competence goals that are set for the on-the-job learning period influence both guidance and assessment (Atjonen 2007; Fjellström 2015). In the studies related to guiding vocational competences, the theme has been dealt with through clarifying the phases of the guidance processes and making them visible in 10 steps (Kirschner and van Merriënboer 2013), by examining the influence of authentic problem solutions (Savery 2006; Nelson 1999) and through the demonstration of skills and the observation of applications and reflections (van Merriënboer 1997).

All of the above perspectives are synthesised in instructional design theory (Gagné et al. 1992; also Merrill 2013; Reigeluth 1999), which aims at defining the learning situations and guidance methods that promote learning. The situations include the circumstances (student-dependent factors, learning environment and resources) and the pursued outcomes that describe the efficiency and attractiveness of the studies. Instructional occasions act as the basis for the choice of the instructional method.

According to Merrill (2013, 21; also Gagné 1985), the basic principles of instruction for planning and realising guidance are problem-centeredness (learning is promoted when authentic work life problems and situations are dealt with), activation (learning is promoted when existing knowledge is activated as a foundation for new knowledge), demonstration (learning is promoted when learners observe the demonstration of the skills to be learnt), application (learning is promoted when learners apply their newly acquired knowledge and skills to real-world problems) and integration (learning is promoted by collaborative reflection on the newly acquired knowledge and skills).

Student guidance can be classified at different levels depending upon how the supervisor acts, what methods s/he uses and what the student's role is. At level zero (0), the supervisor only gives information, at level one (1), information is given and the desired knowledge and skills are demonstrated, at level two (2), information and a demonstration are given and the application of acquired skills is required, and at level three (3), the information included in the problem is described and demonstrated and the application of the acquired knowledge is required in the context of real-world problems (Merrill 2013, 20–27). Since vocational competence is typically connected to the skills and knowledge required for work, it is important that guidance takes place at levels 2 and 3. This is how the construction of competence is supported for different, authentic real-world tasks that demand the situational application of knowledge and skills (Billett 2011).

Music education as a specific background of the research

The national principles of the secondary vocational curriculum regulate the organising of education. According to these principles, the target for an educational qualification in music in Finland is to offer the student wide basic preparedness for different tasks and for continuing education in his/her vocational field. The student has to prepare and practice a new repertoire according to different music genres, modify his/her repertoire to fit the performance situations, perform according to the tasks respecting his/her audience and peer musicians as well as to continuously develop his/her competence (FNBE 2014a, 9).

On-the-job learning is significant in achieving the goals of secondary vocational qualifications in music, but organising it in the same way as in other fields (e.g. in the service sector) is challenging (Tynjälä et al. 2006, 143–144). This has also been observed by qualified students who find the work life contacts with music institutes to be remarkably defective (Purma 2012, 40; also Karhunen 2005, 28).

On-the-job learning for popular and jazz music students can be realised by putting together bands to perform in different productions (e.g. on business occasions, theatre performances) or by hiring students as musicians for existing bands in work life. However, this way of acting has roused critique among musicians and in the musicians' association, since it has brought "free labour" into the field and this has had a negative influence on the work situation for professional musicians (Finnish Musicians Union 2003; Vikström 2000). It has been suggested that music institutes should organise on-the-job learning in cooperation with professional musicians working in the field (Finnish Ministry of Education 2002, 97).

This research aims at explaining how the workshop method – in which a professional musician, music students and teachers plan and carry out a performance production collaboratively – works as on-the-job learning in the education of popular and jazz musicians. The research examines the workshop method especially from the viewpoint of student guidance. As a result, the research questions were defined in the following way: 1) what kind of guidance did the students get in the workshops? and 2) how did it affect their learning?

Earlier research was focused on on-the-job learning periods¹ typical of basic vocational qualification education in different fields. The starting point of this research is a real need in vocational music education to strengthen work life collaboration by carrying out on-the-job learning through a new method of workshop learning.

Workplace learning in the workshop

Conservatories in Finland belong to publicly funded educational organisations, which offer studies for upper secondary vocational qualifications in music (180 credits). Cooperation between work life and educational organisations has been one of the most significant developmental targets in the 2000s (Jokinen et al. 2009).

This research is concerned with the music students' on-the-job learning in workshops. The students designed and implemented a performance collaboratively with an experienced professional musician. Every workshop had its own stylistic theme and the professional musician represented high expertise in that specific music style. The study consists of 11 individual workshops organised as part of the vocational education in the Conservatory of Oulu, Finland in the years 2003–2011 with 62 popular and jazz music students aged from 17 to 24 years as participants.

The workshop process (see Figure 1) began with a collaborative discussion, during which the participants decided about the music theme and the pieces to be played. The discussion also acted as the basis of students' individual workshop plans and learning targets, which they wrote down on a form.

Their next steps were to prepare music by making compositions and/or arrangements, practising their instruments, playing in ensembles and negotiating contracts concerning performances with a concert house or a music club. Students worked autonomously, but were guided by their instrumental teachers and by the responsible ensemble teacher in the workshop.

¹ An on-the-job learning period typically means 6 to 8 weeks of guided working and learning in the workplace.

The workshop was closed during the intensive phase in which the music to be played in the performance was practised together with the professional musician for five days. The intensive period culminated in the performance, which was followed by cooperative assessment discussions. The students reflected on their workshop experiences in relation to their learning goals and reported them on a structured form typically on a following day after the performance.

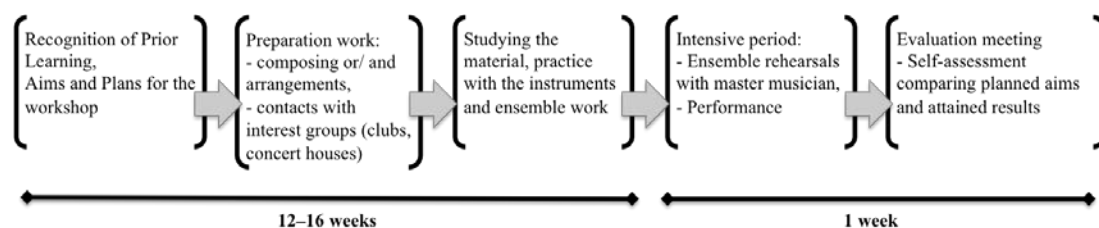


Figure 1. The staged progress in the workshops (Virkkula 2016a).

Research method, data and analysis

The aim of this qualitative case study is to increase the understanding of guidance in workshops and its relations to student learning by focusing on the following research questions: 1) what kind of guidance did the students get in the workshops? and 2) how did it affect their learning? The research follows the method characteristic of case studies: it tries to find an in-depth explanation for a social phenomenon in a real-world context (Yin 2013, 16; also Stake 1995). The context here refers to the environment of events in which the case is realised, not to an artificial test arrangement.

“Case” can refer to an individual, for instance to a student or an employee, to a juridical case or a more general case such as an educational method or a developmental project (Eriksson and Kovalainen 2008). A case creates a framework for research in which theoretical concepts and empirical observations are examined. The research object is observed from different scopes, generally from the perspective of research persons (e.g. students). It is typical to evaluate the experiences of the research persons and their descriptions (Swanborn 2010, 1–5). The case study can deal with one or multiple cases (Yin 2013, 20).

In case studies, the research data can be collected through written questionnaires, participatory observation, interviews, archive material and other corresponding documents (Stake 1995; Yin 2013). In this research, the data was collected in two phases. At the beginning of the workshop (phase 1), students (N = 62) wrote their structured workshop plans in which they outlined their learning goals. Writing the plan proceeded based on the following questions: “How did you participate in the workshop preparation?”, “Describe the theme of the workshop, for instance its music genre”, “How do you intend to prepare yourself for the workshop?”, “What would you like to learn in the workshop?” and “What other expectations do you have concerning the workshop, the professional musician and the workshop concert?”

After the workshop performance (phase 2), the students (N = 62) wrote about their experiences of the workshops guided by the following questions: “Describe your cooperation with the professional musician”, “What did you learn in the workshop?” and “What could you have done in another way?” Additionally, the students responded to multiple-choice (five-point Likert scale) questions “How did the workshop correspond to your idea of a musician's work?” and “Are the skills gained from workshops applicable to a musician's work?”

The research data produced by the students was then analysed by using a theory-oriented content analysis method, which is widely used in systematic analyses of diverse materials in qualitative research (Schreier 2012, 2–5; also Berg and Lune 2012).

In this research (see Figure 2) textual expressions were tabulated according to a meta-research of Finnish on-the-job learning (Jokinen et al. 2009, 230–237) into the classes of promoting and preventing learning. They are: 1) involving students in planning and setting the goals of on-the-job learning, 2) a positive professional experience gained from on-the-job learning, and 3) learning in social interaction; and the opposite categories of: 4) a student did not participate in planning, 5) the experience did not meet the goals, and 6) interaction was scanty or defective. After this, the analysis was deepened by evaluating the written promoters of and obstacles to learning from the viewpoint of guidance and interaction. The main classes consisted of the diversity and/or its defectiveness, which formed seven subclasses altogether. Instructional design theory was utilised to gather information about the learning taking place especially in workshops (see Results and discussion).

Aided by classification, the researchers could survey the material in student-specific and workshop-specific ways and also collect quantitative data out of the data. The answers of the multiple-choice questions complemented the result. By combining the research methods in a “mixed-methods” way, the qualitative material was widened and clarified (Creswell and Plano Clark 2011, 4–5, 10; Teddlie and Tashakkori 2011, 285–286).

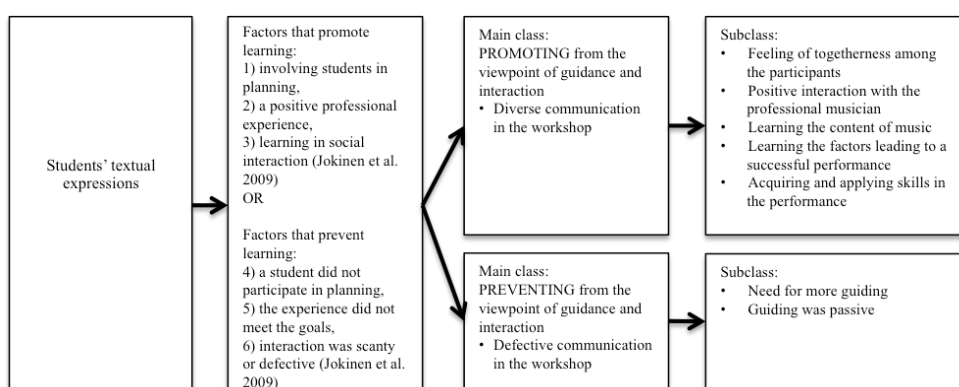


Figure 2. Process of analysis from the original transcripts to the final categories.

Results and discussion

The educational qualification program of musicians emphasises the students’ instrumental and ensemble skills. The goals of Finnish education in the music field include gaining competence in cooperation with others and the application of competence in authentic tasks (FNBE 2014a). The students described how the communication in the workshop promoted their learning. A remarkable number of answers (96.6%) expressed how the interaction in the workshops promoted learning.

From the viewpoint of the interaction during guidance (1st research question), the feeling of togetherness between music students and the professional musician appeared to be important (18.1% of all expressions). It began to be built in the cooperative planning phase and the first ensemble rehearsals in the workshop.

In the team, we discussed the theme of the concert and the pieces (time period/style). We did not carefully follow the original versions, but made our own solutions. (A4)

We discussed together the arrangements of music and in general practised playing the pieces. A fine experience and (the professional musician was) a top guy! A sufficiently relaxed touch to the business and still purposeful towards the results. (A36)

The concert was in my mind successful and the audience seemed also to like it. The joy of playing and singing emanated from all band members. And the atmosphere was really good. (A32)

Interaction with the visiting professional musician was described as spontaneous, and, in spite of the challenging goal of performing, even relaxed (28.5%). The students appreciated that the professional musician joined them when playing, as he was not primarily teaching new things to them.

The atmosphere was nicely relaxed during the whole project and due to this, I was able to try different solutions to pieces without great stress (...) During the project I got a clear picture about the significance of my instrument and found new ways of playing, thanks to it. (A30)

(Collaboration with a professional musician was) Really fine! No prima donna game (...) Suitable guidance and ideas, but nothing that would have brought the sense of being a minority. XX (the name of the musician) was thus a nice guy who even saw the students as human beings!☺ (A12)

XX's (the name of a professional musician) personality carried me away, and I noticed that I had learnt a lot during those five action-packed days (the intensive period). (...) XX's endless interest in music and us students was a case par excellence. It left a very nice feeling. ☺ (A18)

The (workshop's) atmosphere was really relaxed, which helped with working and with the adoption of tunes. The pieces were really jamming/improvisation-based, so we used a lot of time to find the right mood and the same wavelength. (A43)

From the viewpoint of instructional design theory (see Merrill 2013; also Gagné 1985; Reigeluth 1999), the students' expressions refer to the application of knowledge and skills included in the workshops (levels 2 and 3). The students' responsibility was to plan and implement the performance in collaboration with a professional musician. The core action in the workshop process appeared to be the solution to an authentic problem – the performance project – in the musician's work, through sequential workshop phases (see Figure 1). Students' expressions reveal that they had learnt (2nd research question) new things about both the content of music (23.8%) and the factors leading to a successful performance (16.7%).

We also got some general advice concerning our playing. You could negotiate with the supervisor about different solutions so that we could ourselves become convinced about the impression of the ensemble. (...) I learnt how to maintain the intensity of music and of possible styles in solving the problems of pieces. (A37)

(In the workshop) we played and discussed stylistic issues, e.g. sounds, i.e. how to play according to the style etc. I got good ideas and new points of view from XX (professional musician) (...) (I learnt how to) arrange pieces. (A44)

I learnt more and more to listen to the others and appreciate the others' input in the band. The workshop started many ideas which I can develop in my playing. I think that the workshop was very essential from the viewpoint of my professional career. It was just what work life is like: planning, training and getting along with each other. (A15)

All students had checked the pieces well beforehand. When the ground was good, we could, in the rehearsal, orientate in the harmony and turning points of the pieces. (A51)

In the beginning, I doubted my ability to perform the large vocal ranges and also the stylistically different songs. Still I went through the challenges to victory, and it felt really fine. I learnt again to believe in my abilities throughout the workshop and, in fact, that concentration and practice ensured the successful result. (A23)

I learnt a lot about the collaboration of the band and the singer and about musical communication. I also learnt to listen to the other members of the band better. All these things will surely be very useful in the future, for they are the fundamental pillars of playing together. (A19)

Acquiring skills and applying them in the performance situation were felt to be an important part of the workshops (9.5%). Through performing, the students became motivated and got a chance to show their skills.

The concert was a climax, which is the target of all the workshops. In the concert, everyone wants to give his/her best so you have to work to succeed in it. Then everyone will get something in their hands, the musicians and audience. (A3)

Definitely! It is performing that is a great part of our future work. And it would be a pity if after that kind of work load you could not show the outcome to anybody. (A5)

Performing is a good final climax for the workshop and also peps up training, when you have a goal. (A36)

(Performing) is like a reward of the work that has been done as well as a showcase. You can train numberless hours, but in a spontaneous situation of using your skills, you still learn best. A visiting professional musician brings increased efforts and the wish to succeed. (A13)

Multiple-choice questions examined the students' conceptions about the correspondence of the workshop and a musician's work, i.e. with the terms of instructional design theory about *the authenticity* (e.g. Merrill 2013, 21) of the problem connected to a musician's work. The questions tried to promote becoming acquainted with further data about the quality of learning in relation to a musician's work.

In the first multiple-choice subject the students responded to the question, “How did the workshop correspond to your idea of the musician's work?” They explained that the workshop work did correspond significantly to the musician’s work (see Figure 3). In 38.2% of the answers the correspondence was “extremely well,” in 57.4% “well,” and in 4.4% “satisfactory.”

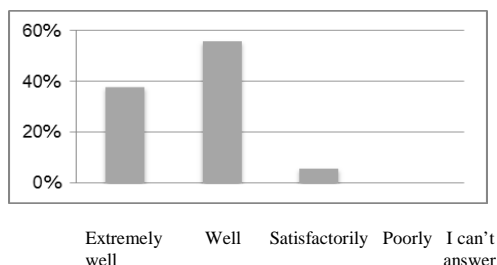


Figure 3. The correspondence between workshops and a musician’s work.

The second multiple-choice question asked, “Are the skills gained from workshops applicable to a musician’s work?” The answer: the competence gained in workshops was adaptable to the musician’s work life “certainly” in 76.1%, “probably” in 21.3%, and “maybe” in 2.6% of the answers (see Figure 4).

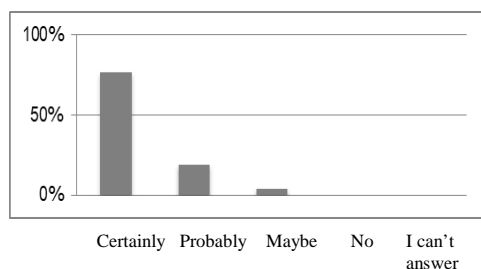


Figure 4. The adaptability of the competence gained in workshops to a musician’s work

Factors preventing learning appeared in 3.4% of the answers. From the point of view of guidance, the problem lay in the scarcity of guiding interaction (2.9%). The students seemed to expect that the professional musician would give clear and constructive guidance (0.5%).

I would have liked to have more advice from the artists about the playing styles of different pieces and about small details as well as a little more general information of the skills and content that a musician has to know. Now the artists only told us about the style of the piece and the style, but didn’t guide us any longer after that. The reason can of course be that the pieces succeeded so well that they didn’t find anything that needed to be added or improved. (A33)

His (musician’s) teaching method was perhaps more passive than I expected, and he didn’t guide the pieces very much. Something about interpretations he brought up, but otherwise he acted as if he trusted our (students’) own artistic visions. (A45)

Conclusions and implications

This case study has examined the workshops as an on-the-job learning method for vocational basic educational qualifications in the field of music. The research data was collected from students and it consisted of a) written structured plans for workshop work and learning goals expressed by the students, and b) descriptions of their experiences in a workshop written after the event took place. The collected data was analysed by tabulating it according to the meta-research of on-the-job learning (Jokinen et al. 2009) into the categories of promoters of and obstacles to learning. The analysis was deepened by evaluating the observed promoters and obstacles in the texts through the following questions: 1) what kind of guidance did the students get in the workshops? and 2) how did it affect their learning?

In the study of the workshop method (see Figure 1), the starting point was *problem-centeredness* according to Merrill's (cf. 2013, 21; also Reigeluth 2012) guidance principles: the action is based on solving an authentic work life problem such as implementing a concert, step by step, by working in the workshop. The cooperative planning at the beginning of the workshop *activates* the student to assess his/her competence and set goals. In individual and ensemble practices, they work with the themes to be learnt and *apply* the learnt issues to the work of a musician. *Collective reflection* at the end of the workshop and individual *self-assessment* help to structure what has been learnt and the significance of the new knowledge in terms of a musician's work.

Based on the collected data, the study revealed that the interaction promoting learning was developed at the beginning of the workshop during cooperative planning and ensemble practices. The role of the professional musician appeared to be collegial, not that of a traditional teacher (see Hager and Johnsson 2009, 106). Scanty interaction turned out to be an obstacle to learning, which was in line with the outcomes of the meta-research (see Jokinen et al. 2009).

From the viewpoint of the 1st research question students' guidance was reciprocal, paying attention to the issues that were central in terms of music. It seems that the tendency of the guidance was to bring out different alternative solutions and facilitate the student to reflect on them. This is clearly reflected in some students' statements: "we were allowed to influence the final outcome (...), we reflected together (...), used a lot of time to find the right mood and the same wavelength". In the light of instructional design theory the guidance in workshop work directed towards solving musical challenges so that students *applied* their competences to working as musicians in the workshop (cf. Merrill 2013, 20–27; also Meloth and Deering 1999).

The role of the experienced professional musician appeared to be significant and cooperation with him promoted learning. From this viewpoint this research strengthens partly the results of earlier studies (see e.g. Kolkka and Karjalainen 2013; Koramo 2011; Koskela and Palukka 2011; Hager and Johnsson 2009). The students especially appreciated musicians encouraging and spontaneous "one of us" way of guiding. In the beginning, the musician was perhaps expected to give detailed advice and control learning. When this was not the case, the students became active and started to ask questions themselves and reflect on the issues (the 2nd research question). The musician's role in relation to the students seemed to be, from the outcomes, as an encouraging supervisor, a facilitator of learning and as a colleague. The result is significant compared to the traditional education of musicians, which has been characterised by a teacher-oriented way of working (see e.g. Fautley 2010; Green 2008; O'Neill 2012).

The professional musicians' collegial guidance affected students' learning (2nd research question), and their competencies seem to have developed via collaborative working, through action and reflection-on-the-action and on its contents. Efforts were made to create knowledge and guarantee it by cooperative planning, the follow-up of its development, guidance and the shared support of the group members. In

terms of learning, the workshop method stresses the development of shared ideas and implementing them, and the skill to collaborate and organise one's work round the issues to be learnt. As such, the workshop structures the picture of a professional musician's work in a very concrete way, and also the knowledge and skills needed for that work. The answers of multiple-choice questions refers also to this point of view: students stated that the workshop corresponded to their idea of the musician's work, and the competence gained from the workshop is adaptable to the work life of a musician. An important role is played by a) understanding the content and targets of action acquired through the cooperative planning of the workshop, b) reciprocity and commitment when working and c) a clearer understanding of the competences gained through experiences and by reflection on those experiences (cf. Guile and Griffiths 2001, 120).

According to this research, vocational education leading to vocational qualification is justified in realising work life-oriented projects in which students perform the tasks of their own professions. From a student's point of view, the work life-oriented way of working gives added value to studies. Positive social interaction with a professional and peers significantly promotes learning (see Hager and Johnsson 2009, 114). The key issue is interaction both during work tasks and post-action reflection (cf. Guile & Griffiths 2001, 127–128). The contents of the profession are learnt this way; however, critical reflection concerning one's work will be practised.

The research was carried out in the field of music, but applying the workshops in other fields is realistic, even desirable. Testing the workshop method in different fields and for different educational levels is a justified theme for continued research also from the viewpoint of reliability and validity. Consequently, the results should not be limited merely to this research project. Their generalisation would be more justified. For instance, students of catering and restaurant services could run a project connected to a food theme with a chef, engineering students could carry out a design or developmental project with an experienced expert in a specific technical field and so on.

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