Use of information technologies in innovation of pedagogical practice in preschool teachers' education

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ABSTRACT

The concept of this paper is based on the problem of reflective practitioner (Schön, 1983) with connecting theory and practice in preschool teachers' education. As a traditional method for creating this connection we can consider personal attendance of future teachers in schools. However, this method has certain "black holes", where students are not able to understand and then analyse the education process using their theoretical background. In our research we tried to prepare students for pedagogical practice through video records from kindergartens. The students had the possibility to answer survey questions about pros and cons of a classic method and a new innovative approach. The results showed better level of moving theory into practice due to detailed explanation in the videos. The videos of preschool education process made a valuable step into Virtual University and in the future can contribute to higher quality of distance education.

Keywords: *reflective practitioner, innovation, pedagogical practice, preschool teachers' education*

INTRODUCTION

Transferring theory into practice has been a topic of educational discourse ever since. Some teachers tend to prefer theory and suggest that "good knowledge" shows the path for solving practical situations; the others criticize a low level of practice in schools and too much theory, which the student is not able to deal with. As a good way seems to be the compromise of these two and looking for appropriate balance. The future teachers on every educational level are firstly prepared theoretically and then (in various ways) they encounter real situations at schools. One of the mostly used methods in teachers' education is observing educational practice at schools. However, the problem is that students are not able to analyse the education process correctly and educators very often do not offer enough opportunities to speak about it and confront their ideas. Many authors have tried to find the best way for developing this process and bring theory to practice and vice versa.

An interesting approach shows the theory of "reflective practitioner" (Schön, 1983). Schön as one of the authors reacting to the needs of bridging theory and practice comes with the idea of professionalism based on reflection in action, whilst he supports everyday intuitive knowledge. This theory seems to be based on theories of the most known reflective thinker and educational theory writer John Dewey (1933) but there also can be felt some discrepancy. However, Schön, together with Boud and Felleti (1997), Kolb and Fry (1975) and the others tried to make the theory and practice "closer friends" without humiliating one or the other. When we get back to reflective practitioner, one of the special knowledge mentioned by Schön is tacit knowledge which basically means that "the competent practitioners usually know more than they can say". Tacit knowledge (Burbules, 2008) is present in every action of the teacher and sometimes the only way how to evaluate this knowledge is reflection or better self-reflection. A teacher-to-be should reflect certain signs of education process as for example:

what, how and why he/she did something in the class

what kind of effect it had on pupils

what are other options for the same educating situation

what are stronger and weaker parts of the process to be developed

Self-reflection is not easy to be made and sometimes students are not ready for that. It is not about an educator explaining to them what was good and what was wrong, it is more about their insight into the process and self-evaluation or sometimes more about self-criticism. To achieve this is a long-term process and unfortunately some individuals never come to a successful outcome. In case the students or novice teachers accept the challenge and come to the reflection, this would lead to improvement of the whole education system.

When we speak of reflection we cannot omit experiential learning theory (ELT) as a model of education process (Kolb and Kolb, 2005). This theory was developed especially to emphasize the role of experience in the process and it could be also explained as "a process whereby knowledge is created through the transformation of experienced" (Kolb, 1984). The particular experience can be understood as a basis for reflection or observation.

Our idea was to prepare students for situations in the class and before they meet the "real education process" we wanted them to be prepared. We decided to arrange sample situations in kindergartens and then make video records of chosen education activities. The videos were used during lectures and were analysed with the students studying Preschool and Elementary Education Course. After that, the students visited kindergartens and observed the education process. The research was aimed at students' feedback and reactions regarding new approach in bringing theory to practice.

METHODS

In our research we were interested in students' (future teachers) opinions, what they think of innovating pedagogical practice by means of video records. There were 121 students involved in the research, all of them studying Preschool and Elementary Education at the University of Trnava (Slovakia) in the years 2011 - 2012. The video records were prepared in cooperation with kindergartens and all participating persons signed the permission of processing their personal data and pictures. The videos presented various situations in the class both of behaviour and education. The students had the possibility to see parts of the education process in kindergarten on videos during lectures and then they saw similar real-life situations (observing pedagogical practice). In our survey we wanted them to express opinions regarding video records, whether they think the videos could be helpful for improving the process of understanding various situations and pupils' behaviour at schools or they are just additional studying material with no purposeful meaning.

RESULTS

The results supported our assumptions, that the students did not feel perfectly prepared for teacher's profession after having completed their pedagogical practice. Mostly they argued about lower level of educational practice especially the lack of discussion after observing or participating in the education process. Our project was aimed at preparing sample video records to be used before the practice at schools and to show the students new possibilities of optimizing education process. The data received in the survey, after the students had completed the innovated education process, showed that 78% of them thought the pedagogical practice was very important, however, only 8 % of them thought it was irreplaceable. Almost 60% of all participants chose the answer that the presented videos could be very helpful during analysis of the education process, because today's technology makes it possible to stop, reward, forward, skip or comment the situations on the video. Especially the comments of teachers were of great value, because the students could understand reasons for choosing methods or approaches in the process. The data presented in Fig. 1 express, that most of the participants (63%) thought the videos could be a good means for connecting theory and practice. Only 7% of them thought the videos could completely replace pedagogical practice at schools and 93% suggested the videos should accompany the pedagogical practice.

The idea of our project was to prepare good material for improving teachers' education. We also wanted to create a material suitable for further web-based education, e.g. Virtual University, e-learning, etc. However, we had to accept the conditions of cooperating kindergartens that the videos will only be used as a study material in the classes and it will not be published or presented on the web in a full version. Therefore we may offer only some kind of introduction to this education course in the Virtual University and the most information will be of theoretical

background. Despite this fact, we asked students, what they thought of using videos in web based learning. One of the answers involved the information, if it was even possible to use e-learning/Virtual University in teachers' education and 12% of them chose "cannot be used" (Fig.2).
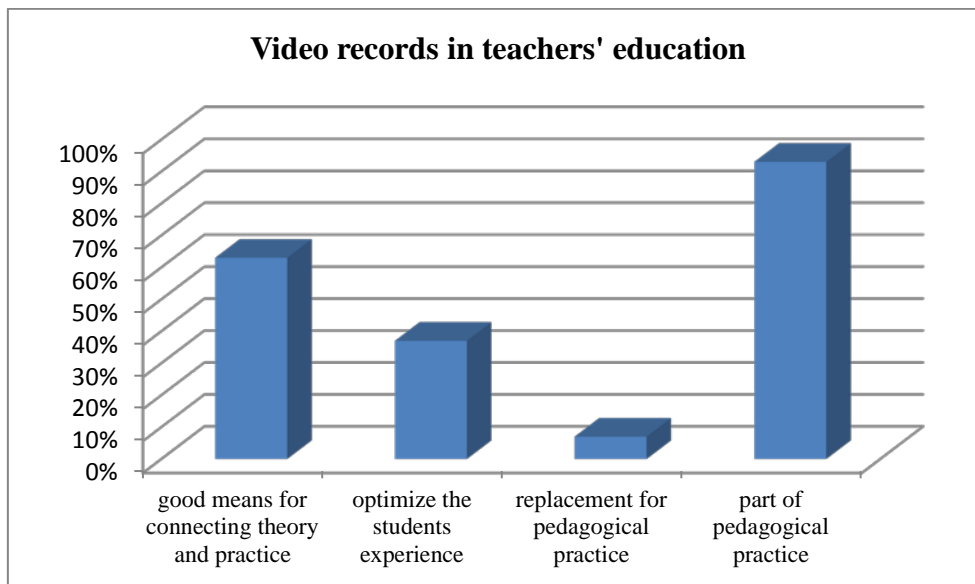

Figure 1   Use of video records in teachers'education
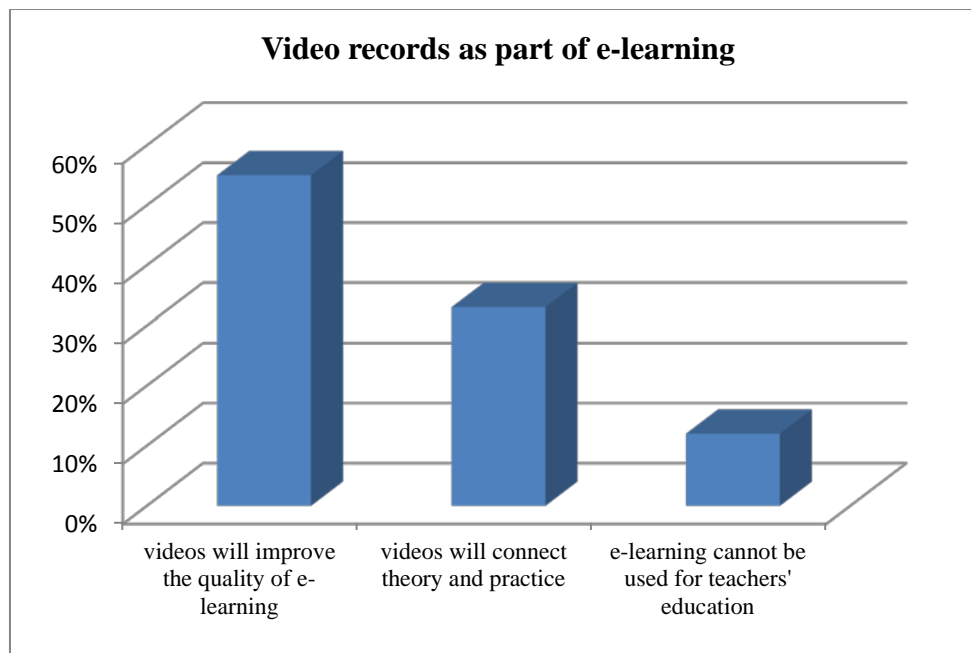

Figure 2   Video records as part of e-learning

Most of the students reported that in web-based education could videos improve the quality and could better bridge the theory and practice. Their notes in the survey suggested that they would invite more video situations for analysing and more problem-oriented education activities.

All the results in this research are related to students studying Preschool and Elementary Education and this could be one of the reasons why the response to innovation is so positive. The target pupils (children) at the age 3-6y or 6-10y have very often unpredictable behaviour in the class, which is very often difficult to be explained in advance. The only way how to be a good teacher is thanks to their own experience and because a teacher-to-be does not want to fail or disappoint the educator, he/she appreciates helpful advice. This advice appears very clearly in the videos and the student understands the used methods or principles directly.

DISCUSSION

The probably never ending discourse about theory and practice in education has been changing over the years with bringing new ideas or suggestions. We suppose that using videos in University courses for to-be-teachers is a good way how to improve the quality of novice teachers. The next step would be to record students during their practice at schools and to analyse their own behaviour during classes. This approach would be the most valuable regarding the above mentioned theory of reflection, but on the other hand it would not be possible to perform it with each student due to student's privacy rights. In other words, if the student does not want to be recorded he/she should not be.

CONCLUSIONS

The pedagogy science has developed various theories to characterize the relationship between theory and practice and has been looking for principles that can explain this relationship. Although this question has been here for long enough, we still cannot explicitly define the roles of each (theory and practice) in the education process.

Teacher's profession might be easy to study but it is undoubtedly difficult to perform. A teacher should never stop to educate himself/herself, should never give up finding solutions in difficult education situations and should try to help pupils/students to gain the knowledge they want to. Therefore, when we ask a question, whether the theory or the practice makes a better teacher, we will not find the correct answer, because right now the true answer does not exist.

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