VIDEO LEARNING ENVIRONMENT FOR GUIDING STUDENT TEACHERS’ CONSTRUCTION OF ACTION-ORIENTED KNOWLEDGE

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Outline

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Background

• **Video training** has become more accessible through the spread of mobile computing devices such as tablet computers and smartphones.

• **Student teachers’ construction of action-oriented knowledge**: a collection of strategies, rules, and principles that can be used in particular teaching situations (Mena, García, & Tillema, 2011).

• **Reflection** as a process of evaluation that teachers or student teachers should engage in regularly to interpret and improve their professional practices (Husu, Toom, & Patrikainen, 2008).

• Through reflecting, teachers are guided to systematically **describe, justify, critique, and discuss** different technical, practical, or sensitizing aspects of their teaching experience (Leijen, Valtna, Leijen, & Pedaste, 2012).
Goal of the study

- to develop a video learning environment that is a technological tool for supporting student teachers’ guided reflection procedure where their peers and mentor teachers can contribute
  - needs analysis
  - first version of the learning environment
  - piloting in a session where student teachers, mentor teachers from a training school, and teacher educators from university all were involved in their roles and where all advantages and disadvantages of using the learning environment were discussed in a group
Methods

• **needs analysis** was conducted in the **project team** of an international project for action-oriented teacher education (team consisted of university staff from Estonia, Finland, Spain, and the Netherlands and covered a wide variety of experiences in using videos and guided reflection procedure in teacher education)

• **end users** applied the video learning environment according to a specific **scenario**: (i) introduction of the guided reflection procedure supported by the video library, (ii) video learning environment testing, (iii) discussion on additional opportunities for using the video library.
Learning environment

• multilingual web-based learning environment that applies Vimeo: [http://acttea.ut.ee/video/](http://acttea.ut.ee/video/)
• upload short videos of critical incidents that characterize their classroom practice and interaction with pupils
• can be viewed by all users of the environment or by groups specified by the owner of the video or administrators of the environment
• all videos can be accompanied by tasks, comments, and materials such as video transcriptions, theoretical texts, and expert commentaries
• subtitles in different languages can be added via an integrated translation tool
Hommikuring

from Acttea Tartu

Video info
Title: Hommikuring
Author: Test Ülikõlame
Groups: Proov_tõstülp
Country: Estonia
Spoken language: Estonian
Type of video: teaching
Subject: other
Age level: pre-school
General tags: märksõna

pre-school | other | teaching | Estonia | Estonian | märksõna |

different tags
Results – technical use

• Most of the users agreed that it is technically easy to use the video learning environment. It was very easy to create a user account.

• Most of the people also agreed that it is easy to create a group of students or to upload videos or other documents.

• More difficult seemed to be to upload an instruction of tasks for the students or oral reflection, where at least three out of seven persons neither agreed nor disagreed that it was easy.
Results – user-friendliness

• The users liked if there was no unnecessary information.
• They disliked that some information are “hidden” behind icons – they expected that some textual information is also available.
• The users expected that they are always informed if their activity was successful.
• It was suggested to prefill some information (date, language, country) by default information depending on the user’s characteristics and data available in the computer or the Internet.
Results – clarity of information needed

- Expected information was clear only in three of seven stages. In other cases, it was neither clear nor unclear. The issues were again detected in uploading videos and different materials except other additional documents.
- The users indicated that some categories in the predefined system of metadata were not clear. It was not intuitively understood what is meant by video type or age-group. In the case of selecting user groups who will get a particular task, it was not always clear why these groups are needed at all.
Recommendations (1/2)

- Present only information that is by minimum needed by the users.
- Icons should be accompanied with textual information to increase user-friendliness.
- Users expect feedback on every activity to be sure that they were successful.
- Texts of the learning environment should not be too small.
- Progress bar is needed in cases of processes that take longer time.
Recommendations (2/2)

- Progress bar is needed in cases of processes that take longer time.
- Prefill as much information as possible to decrease the workload of users.
- In case of unusual elements of metadata, a short description should be available.
- To have a better overview of information, drop-down menus should be as long as possible.
- Both selecting and unselecting options should be available for users to apply the procedure that takes them less effort.
Conclusions

• the study revealed several users’ expectations that can be used in fine-tuning our video learning environment, but these can also be considered by other instructional designers who develop similar tools or have to select them for use in their research projects or teacher education

• limitation – data were collected “in labor”, additional tests are needed in action

• it would be interesting to study how this learning environment can be applied in different languages and countries
Conclusions


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