

Potential of Web-based Video Reflection for Driving Instructor Education

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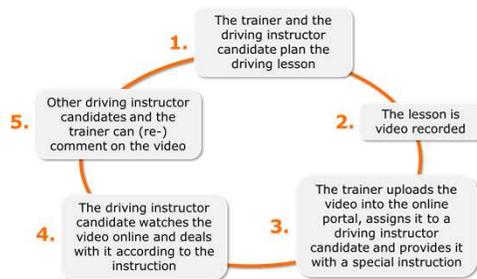
1. Introduction

The demands for driving instructors' professional skills have expanded significantly in recent years (due to technological progress, traffic density and heterogeneous target groups). Today, driving instructors are faced with high educational demands and therefore need good teaching skills. They must prove these skills in complex and partly dangerous situations. Training procedures to learn these skills widely vary in the European Union. There are no binding or unified standards how to foster the **development of teaching competence** in practice.

The goal of the EU-project "Driver Instructor Education 2.0" is to improve the teaching competence of driving instructor candidates in selected European countries (Austria, Belgium, Germany and Italy) by using **internet and video technologies** for the **reflection** of their own teaching behavior. For that purpose, a special online portal (edubreak@Campus) containing different video tools is implemented.

2. Web-based Video Reflection

The didactical focus of the concept is on the active and collaborative work with lesson videos through **video reflection**. In the online portal driving instructor candidates can watch videos of their driving lessons and annotate them according to **special reflection assignments** from their trainer. With the video tools they can integrate **time stamp-based comments** in their videos. The aim is not only to stimulate a reflection of the own teaching behavior but also to foster the **verbal ability** and the **exchange** among each other.



3. Research Aims and Questions

Based on the EU project, the aim of my thesis is to investigate the potentials of using digital media in driving instructor education by answering the following research questions:

- I. How can a web-based video reflection be implemented in driving instructor education? (in different contexts like driving instructor training centers, driving schools, different countries)
- II. Which effects does the implementation of web-based video reflection have in driving instructor education? (for driving instructor candidates, for trainers, for the organization, for driving instructor education)
- III. Which changes of the learning and teaching culture as well as of the organization does web-based video reflection entail?



Apart from text, there are also other possibilities to comment on the video, for example drawing tools or a traffic lights assessment with which a situation can be characterized as critical (red), unclear (yellow) or successful (green).



The learner can also assess the emotions in a situation on the basis of a weather metaphor (e.g. sunshine for a positive mood, lightning for a weaker one).



The videos can be annotated and commented on by colleagues or the trainer. All the comments in a video appear as small dots above the timeline or in the right navigation bar.

4. Methodology

The implementation of the web-based video reflection within the EU project will be examined in a **case study** using an **embedded multiple-case design**. Here, the five participating driving schools and driving instructor training centers from Austria, Belgium, Germany and Italy will be regarded as **embedded single cases** because of the different training systems in these four countries.

The implementation of the web-based video reflection is documented systematically during the project:

- **Field notices** of the processes and results from the interaction with the project partners.
- **Data from the online portal** (e.g. number, scale and quality of videos and comments).
- **Structured interviews** with the participating trainers and driving instructor candidates.

5. First Results

At present (March 2011), the 18-month EU-project is in its last phase. In this phase, summative surveys are conducted and the already gathered tracking and interview data are analyzed. That is why the following results are purely descriptive and only give an insight into already discernible tendencies.

In the first ten months of the project...

- 13 trainers and 121 candidates have used the portal.
- 487 videos have been uploaded and 207 videos commented on.
- 1266 comments have been written, 208 by trainers and 1058 by driving instructor candidates.
- 887 times the traffic lights-assessment has been used and 165 drawings have been made.
- In 107 comments the communication and in 76 comments the emotion assessment have been used.

First results from the qualitative evaluation

This data point out that the use of web-based video reflection for improving the own teaching competence is accepted by the driving instructor candidates from the outset. This view is also supported by first results from the interviews: Most driving instructor candidates emphasize the added value of the video reflection in the interviews. They recognize the purpose of video reflection (improvement of their teaching skills) and most of them can tell about positive experiences due to video reflection. In their opinion, the web-based video reflection has helped them to recognize flaws and mistakes (e.g. in their language) they had not noticed before. In most cases these mistakes could be eliminated quickly. That is one reason why the trainers are also satisfied with the first results of the video reflection.

The feedback of their colleagues is also very important for driving instructor candidates: It helps them to recognize mistakes and it gives them suggestions for improvement. Considering, the peer feedback gives driving instructor candidates the opportunity to learn from the knowledge and the experiences of their colleagues.

6. Conclusion and Perspectives

The first results from the qualitative evaluation give a first insight into the effects the implementation of web-based video reflection has in driving instructor education (second research question). However, a further analysis of the research data is needed to answer the three research questions in detail. That is why my next steps will be a description of the different cases and a detailed analysis of the first interview data. Moreover, I will conduct further interviews with the participating driving instructor candidates and trainers. Thus, I will investigate which longterm changes and effects video reflection has in driving instructor education.