

## Higher education didactics report

### Summer School

### 2014 and 2015

#### *Hochschuldidaktikmitarbeiterin:*

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#### *Structure:*

1. Introduction
2. Resumee

## 1. Introduction

The international Summer School “Soil & Water“ is an ERASMUS intensive programme that is funded by the EU. It deals with the complex coherence between soil organisms, plant roots, water, rocks and human exploitation. In order to be able to provide this unique and sophisticated two-week programme, about a dozen teachers from universities in the Czech Republic, Estonia, France and Germany work together. The Department of Biology of Ulm University leads the organization of the Summer School. An important aspect is the didactical processing of the programme. Here, the Centre for Teaching and Learning at University Level of Ulm University gives support with their evaluations, by means of which possibilities for didactical developments of the teachers can be identified.

In order to support the development of the individual teaching competence, video-supported recordings were observed and specific teaching units were evaluated. The following didactical report bases on the video and/or Matterhorn recordings of four teachers. In the report individual teaching units are analyzed, good teaching approaches are identified and suggestions for improvements are given.

## 2. Resumee

Based on the video and Matterhorn recordings it can be declared from the didactical point of view, that the presentations of the Summer Schools 2014 and 2015 take place in a pleasant (learning) atmosphere. This gets particularly obvious by the great attention of the students (barely/no disturbance or disruption) and the numerous requests from the students during or after the presentations. Further, there is a welcoming at the beginning of each presentation that is followed by at least a rough overview of the contents of the respective presentation.

All teachers work with PowerPoint presentations that contain numerous helpful and elucidating pictures, figures, graphics and diagrams. In some cases, additional elements (e.g. an apple) are used to clarify the contents, which further supports the mediation of the syllabus.

From the didactical point of view, three aspects emerged as approaches for the development of the presentations in the frame of the Summer School:

### *1) Design of the slides*

The design of the slides is generally inconsistent. Besides inconsistent fonts, font sizes, enumerations, etc. the slides tend to contain too much information or too small figures with too small font sizes. Besides individual suggestions for improvements, the introduction of a template for the presentations in the Summer School could be helpful. This template could contain the logo of the respective university, the date/topic and slide number as well as it could determine the font and font size. Further, there should be max. 8 bullet points per slide and there should be either notes or sentences on a slide. Sentences are recommended for citations or definitions that either are read aloud or shall be read by the listeners themselves. Ideally, only pictures/figures, diagrams or similar are shown on the slides that are enriched by oral explanations of the teachers. Maybe it's worth considering to create an accompanying script that contains the additional information.

### *2) Support for the structure of the presentation*

All teachers give a short and crisp overview of their presentation. Since the Summer School contains numerous intensive presentations in a very short time, it would be a great assistance for the students (with different background knowledge) to a) get an alignment into the overall context and to b) have a detailed overview of the contents of the presentations. Both could be given e.g. in a MindMap, overview list, formulated teaching and learning goals, etc. Ideally, those overviews are visualized, so it is possible to revert to them. Especially for detailed overviews in an individual presentation one could revert to the beginning at the end of the

presentation (e.g.: “At the end of this presentation you know.../ are able to answer the following question...“; “When we look back on the initial situation from the beginning again, ...“, “Referring to the overview from the beginning, the main points are...“).

### *3) Interactive Elements*

The majority of the presentations were given in a frontal way, occasionally there were interposed questions. From didactical view there should be a change every 20 - 30 minutes, because the attention of the listeners decreases rapidly then. Such changes don't need to include elaborate methods, but can be small alternations, e.g. interposed questions: “You see this picture here, how would you interpret the situation?“, “If you compare method A with method B, which advantages / disadvantages are there?“, “How would you interpret these data?“, “What do you think happens, when ...“, etc. That is to say, the teachers could work with estimate questions, ballot questions, summary questions, etc. and to encourage e.g. a discussion with the seatmate for 1-2 minutes. If applicable, film clips with an “observation mission” could also be used. Even with smaller means of this kind, the maintenance of the attention of the students gets more likely.