

# APPLYING MIXED MEDIA TO TEACHER TRAINING: THE OVIDE EXPERIENCE

**Dolors Masats & Melinda Dooly**

Universitat Autònoma de Barcelona  
Bellaterra (Spain)

*dolors.masats@uab.cat ; melindaann.dooly@uab.cat*

## Abstract

The use of videos in teacher training programmes can provide significant input to the overall development of future teachers [1]. Videos combined with Information and Communication Technologies (ICT) in educational contexts increase the possibilities of improving the teaching-learning process even more. However, the use of mixed media such as video and computers should not be guided by technological advancements only, but rather by the teachers' and learners' experiences and needs. Significantly, despite the evolution of ICT in education, on the whole videos have not served new purposes. Perhaps this is due to the lack of focus on learner and teacher needs when promoting the use of videos for teacher training.

Thus, the goal of this paper will be to present a teacher training experience in which case methodology is applied to video-documented cases and combined with the use of ICT. This mixed media approach served as a means to present real examples of classroom products to student teachers. The case study stems from a European Minerva project (Project 223249-CP-1-2005-1- NL - Minerva- M) whose target goal is to study how digital video is used in teacher training programmes. This presentation will discuss, within the project framework, how the partners from Barcelona adopted a mixed media approach in order to help future teachers acquire theoretical knowledge, grounded in real practice of foreign language teaching in a formal setting.

This mixed media focus was based on the premise that only those student-teachers who learn to use technology during their pre-service studies are likely to incorporate technology in their future classes [2]. Teachers must be prepared to adapt their teaching styles and methods according to new developments in technology in education, especially since they will inevitably have repercussions in the classroom. As [3] have pointed out, there is a need for both teachers and teacher trainees to be technologically aware and *competent*. This study is our modest contribution towards that goal.

**Keywords:** video case study, blended-teaching, virtual learning environment

## 1. INTRODUCTION

The use of videos in teacher training programmes is not a new fashion. They have long served as teaching tools in the various types of courses trainees are offered at universities and colleges: in language courses, videos have provided trainees with samples of authentic input; in the tutorial sessions linked to the school placement practices, videos have been used to aid student-teachers reflect upon their own teaching skills; and in language methodology courses, videos can help establish links between theory and practice by allowing students to make new connections between pedagogical concepts and their actual application in the classroom.

Recent advances in computer technology have had repercussions in the use of digital video recording in the classroom: cameras are now much more affordable and relatively

easy to use. Parallel to this, previous difficulties in editing and video management have been greatly reduced, making the use of 'homemade' videos more accessible as a teaching and evaluating resource for teacher educators. Today, digital videos do not serve new purposes (see [4] for a review on its use in teacher education) but the evolution of the so-called Information and Communication Technologies (ICT) provides a means to change the way videos are visualised and exploited in classrooms, as both processes no longer need to be related to face-to-face teaching and learning experiences. As an example of possible uses of digital recording, [5] outlines the following:

- Student-produced videos highlighting activities and lessons from their practice teaching lessons can be observed, discussed (face-to-face or online) and assessed by their tutors and peers.
- Segments of student-produced videos can become part of the trainee's electronic portfolio.
- Student-produced or teacher-produced videos can be compiled into catalogued case studies and included in a database. These can be used as examples of practice and even shared with other teacher training institutions.
- Teacher trainees can become familiar with the schools and the teaching methods used in the schools where they will be carrying out their placement training even before accessing the school.
- Inevitably, video technology can constitute part of both blended and distance learning teacher-training courses.

The European Minerva project (Project 223249-CP-1-2005-1- NL - Minerva- M) which sustains the foundations of the present study, namely "OVIDE: Online Video In Digital Environments", aims at documenting current practice as well as designing, implementing and evaluating digital video case studies so as to identify the inherent technical and pedagogical challenges which must be faced when adopting this teaching methodology. The principle pedagogical concept underlying the OVIDE project is a focus on authentic learning, as outlined in the premises of social constructivism [6]. Although social constructivism can be said to cover several different approaches, the term is used here to refer to the assumption that individuals are active agents who purposefully seek and construct knowledge within a meaningful context. The adoption of the case study methodology in OVIDE has to be understood, then, in this context, that is, as a means to promote reflective practice in teacher training. As [7] points out, "learning to teach is difficult when students have little time to observe effective teaching in a variety of situations, to practice their own teaching, and to reflect on this experience with others". By using video case studies, trainees have easier access to practical situations they will be faced and these *in situ* input can be used to promote discussion and reflection. A further element of importance to the project is the concept that the process of learning occurs through *shared* knowledge-building –a process which emphasises a joint effort [8] of knowledge construction. The use of videos, as outlined above, can support and facilitate group interaction and group dynamics in ways that are not always achievable in face-to-face interaction, by bringing into play elements from outside the classroom (e.g. the trainees' own experiences in their placement, the day-to-day interaction of a classroom, etc.).

## **2. THE BARCELONA CASE STUDY: REFLECTING UPON TEACHERS' ELICITATION TECHNIQUES**

All partners in the OVIDE project contribute to the elaboration of a collection of video case studies whose design, implementation and evaluation can then serve as the basis to establish a set of generic pedagogical principles of how digital videos should be used in teacher training programmes. The present paper discusses one of the case studies elaborated by the Universitat Autònoma de Barcelona. The target group was made up of student-teachers taking a course on Teaching English as a Foreign Language (TEFL),

which was part of a Masters Programme for the Pre-service Training of Secondary English Teachers. The students worked within a Virtual Learning Environment (VLE) hosted in a Moodle platform. This decision provided a means to resolve certain technological problems such as the fact that the University Virtual Campus (intranet) does not include the kind of dynamic interface we required.

Moodle (Modular Object-Oriented Dynamic Learning Environment) is a free open source software package which allows users to construct a dynamic (it updates immediately after the intervention of a participant) and modular (it allows users to add new functions and new activity modules) virtual learning environment in which to apply the methodological principles put forward by the constructivist approach, which, as we pointed out earlier, is nurtured on the notion of meaningful learning and sets the basis for the design of the OVIDE video case studies. Moodle is supported by a global community of users and developers (in business and academia) and its use of open standards and its modular structure renders the platform highly customisable. However, experience showed that extra time was required to allow the participants (both teachers and students) to familiarise themselves with the new web tools and related pedagogical ideas, since the concept of 'web portal' and the related functionality offered to individual members in personal workspaces was new to most users. Many of them reported feeling more comfortable with websites for information extraction and therefore needed time to get used to the idea of being personally 'in the driving seat'. The extent of available functionality and spatial orientation seemed to be the most problematic issues although further confirmation is needed from the results of the usability research. Inevitably this reduced the interactive potential of the OVIDE project to some extent.

Student-teachers participating in the implementation of this case were asked to view a 3-minute video clip in which a secondary teacher in a CLIL class (*Content and Language Integrated Learning*: a methodological approach which postulates that language is learnt when it serves as a lingua franca for acquiring knowledge from other curricular areas) is eliciting information from her pupils to review the principles of the first Newton's Law. During the viewing, they had to observe the kind of interaction the observed teacher promotes and analyse the nature of the questions she asks. All the tasks are done in the virtual environment in which student-teachers had to post their answers and then take part in a forum in which they discuss their own practices.

Language teachers need to be good at promoting classroom interaction as it is through language use and exposure that learning takes place. It has been proved that learner-centred classes in which learners do most of the talking are more likely to foster the acquisition of the target language than in teacher-centred milieus. Yet, even in learner-centred classes, teacher talk plays a key role in the process of helping students learn. This case study is based upon the assumption that if student-teachers observe other teachers talking, they would become more reflective about how to address their future pupils and may even plan their talk. Thus, responding to the challenge of developing "reflective practitioners rather than technical experts" [9], the case presented here was designed with a two-fold objective. Firstly, the video case offered student-teachers the possibility of glimpsing into a real classroom to reflect upon what was going on; and, secondly, they acquired new knowledge by carrying out computer mediated tasks (designed especially to promote online discussion to solve the theoretical-practical problems the video case had put forth).

### **3. METHODOLOGICAL CHALLENGES**

Despite the above-mentioned advantages and opportunities provided by video technology within the educational context, there were methodological challenges to the case study we present. On the whole, the students were not used to being exposed to a methodology based on "blended-teaching", nor was the teacher, despite good intentions, fully aware of the all issues regarding the adoption of this type of methodology [10]. Firstly, however, what is meant by blended-teaching must be fully explicated. Taking

[11]'s argument that the more well-known term 'blended-learning' should be either eradicated or re-conceptualised, the term blended-teaching is preferred:

"This blending is not about learning per se; it is thus misleading to call it 'blended learning'. Instead, if a term must be used, this should be abandoned in favour of 'blended pedagogics' or even 'blended teaching', or (to maintain a student focus) 'learning with blended pedagogies'" [11].

The conception of 'blended-learning' is not only ill-defined, it is used to cover a large array of ideas, including but not exclusive to the idea of the use of web-based technology to accomplish an educational goal; the combination of different pedagogical approaches (with or without instructional technology), or the idea of combining varieties of instructional technology with face-to-face instructor-led training [12].

Thus, by adopting the position of blended-teaching, the focus is shifted from content to experience by re-conceptualising the role of the teacher as the agent responsible for providing authentic and motivating materials so that the student-teacher might rightfully learn. This helped shift the focus from 'trainer in the know' to 'student-teacher learning to know'. This re-focusing allowed for the design of the activities which incorporated video-recordings of real interactions of teachers and pupils involved in an interactive CLIL-based learning situation. Moreover, the combination of theoretical and practical aspects of teaching, as seen in real learning situations, made the learning both relevant and fun.

In the VLE portal, student-teachers were given access to a streaming video that showed a teacher eliciting information from their pupils. A transcript of the recording was also provided. Both documents were to be used to carry out an observation task on teacher's language.

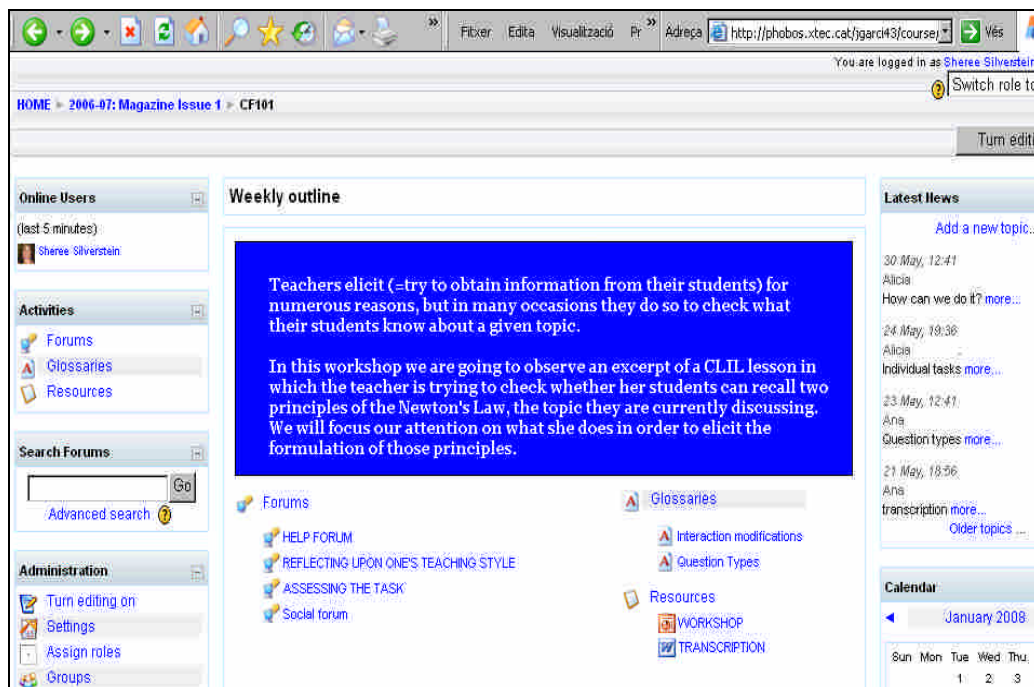


Figure 1. Overview of the online classroom in which the video case was developed

Theoretical explanations were provided in the format of glossaries or powerpoint presentations:

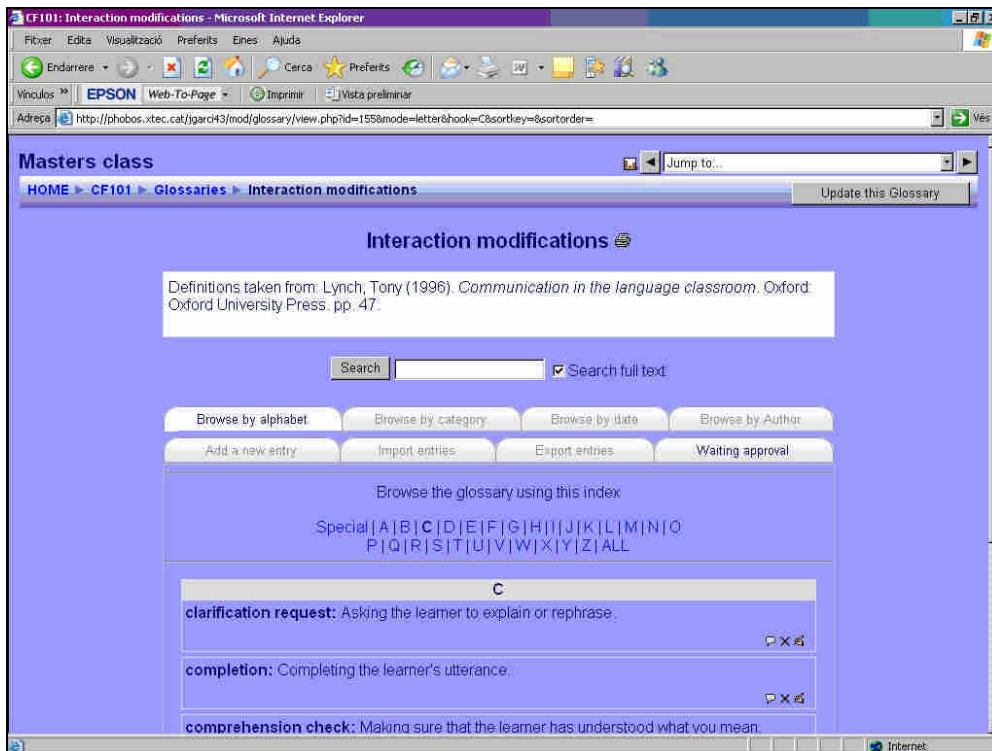


Figure 2. Students' resources: Glossary on Interaction modifications

The two activities linked to the observation task were to be submitted as individual assignments (see figure 3), but students could access a “help forum” to discuss their answers with their peers or to ask their teacher for clarifications. Finally, student-teachers had to apply the knowledge gained to the description and reflections upon their own practices.

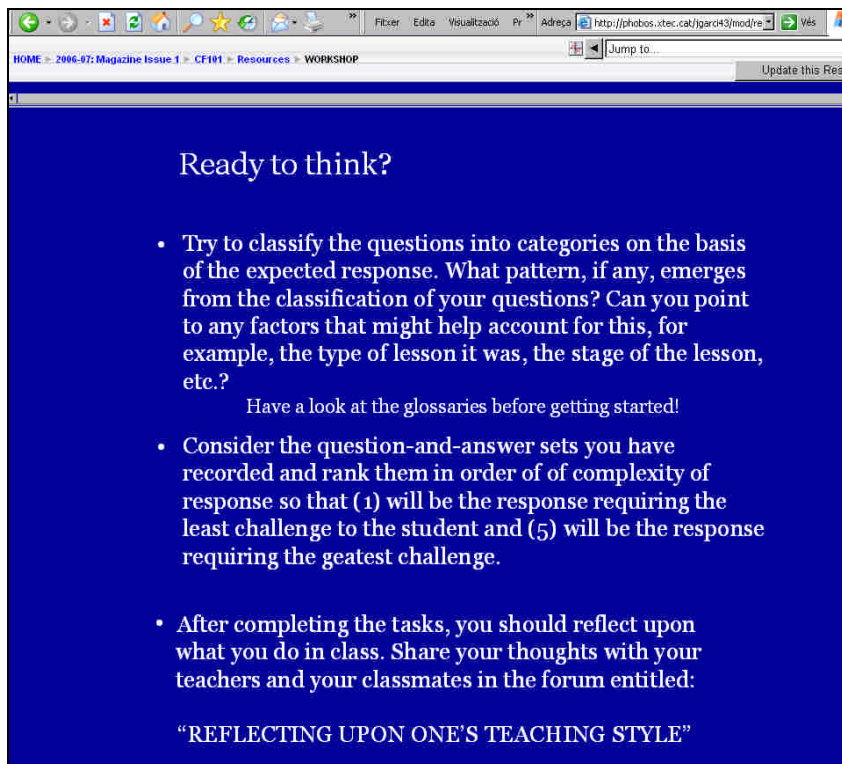


Figure 3. Observation and reflection tasks

By prompting discussion through asynchronous communication, the students were encouraged to reflect even more profoundly on the learning processes they had observed in the videos and to consider their own performance. This had a two-fold purpose. Through the forums, the teacher trainers had access to group learning that took place “externally” and which is usually invisible to the trainer [13].

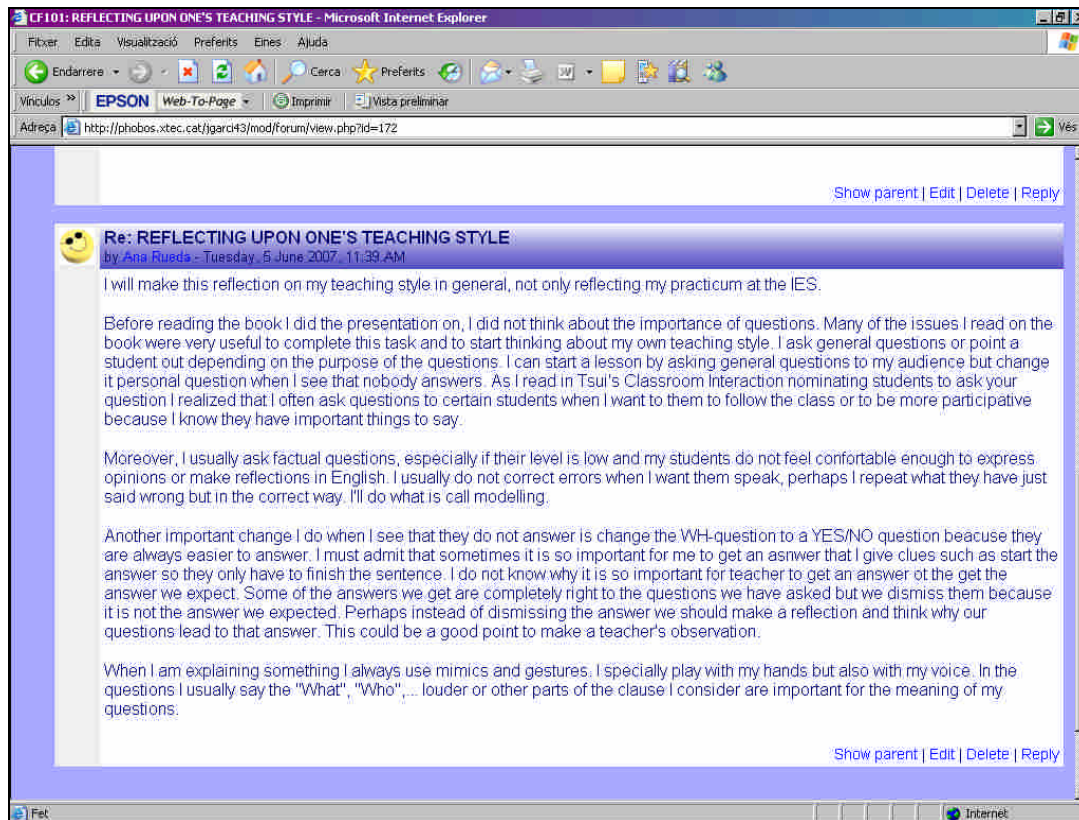


Figure 4. Student-teacher reflecting upon their own practice

The texts reveal that learners did not simply provide a description of their actions, instead they questioned and / or justified them based on the knowledge gained through the workshop and through the course literature.

Secondly, forums were also used to obtain students' feedback on the workshop and on their participation in it. This meant that evaluation not only focused the students' attention on their own learning process, it legitimatised “peripheral participation” [14] and [14] and [15] of some of the group members by validating their input and by strengthening the roles of the members in a small “community of practice” [15].

Was this observation task useful? Why? / What for? Why not?

Would your answers have been different if you only had had the transcript of the lesson? Which added value did the video recording have, if any?

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 **Re: ASSESSING THE TASK**  
by Alicia - Thursday, 31 May 2007, 08:46 PM

I think that this lesson has been useful, because it has given us the opportunity of observing how a teacher tries to elicit information from the students. We have seen the strategies she uses and the reaction of the students. We have thought about the kind of questions she asks, if she lets them time to think, etc.

This class has made us reflect about our own way of eliciting information from students: our strengths and our weaknesses and we have had the chance of exchanging opinions between us.

The video recording has a lot of value, because it allows us to see the gestures that the teacher makes when teaching the lesson, its position in the class and the face expression of the students. Without the video recording, we would have lost all this visual information.

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 **Re: ASSESSING THE TASK**  
by Ana - Wednesday, 6 June 2007, 07:05 PM

I completely agree with Alicia. This task was very useful as we could think about different aspects of teaching that we did not consider before. Watching the video was a good way to make an observation on another teacher. We could see the kind of questions she uses, the tone of her voice if she changes the speed or says things louder and clearly than others, ... Without the video we will have missed important issues. Our conclusions would have been different because with only a transcription like the one we had we could not see the differences in her speech or the use of mimics when she is trying to elicit the correct information from her students. Apart from the video, I must admit that Tsui's book was really useful to do this task but also to think about issues that I never thought before.

After doing this first observation, we were able to make a reflection about these important aspects of teaching. We spend lots of

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Figure 5. Students' participation in a forum to assess the workshop

#### 4. CONCLUSIONS

In the OVIDE project, the use of new technologies such as video and the Internet have been used as an effective means for creating new learning opportunities for the teacher trainees, not only as students but also as future teachers. Student-teachers were able to experience, first-hand, the use of technology in their own classroom while observing an experienced teacher in action. Moreover, the technological resources were introduced through a socioconstructive approach that prized group learning over individual, sequential learning. As [16] Dooley (forthcoming) has argued,

“new technology must be clearly defined in its role in promoting the construction of shared knowledge, not simply as a repository of available information to be downloaded and consumed uncritically. This implies taking a close look at its potential as a pedagogical tool and the way in which this potential is correlative to the paradigm of the learning process which underlies its use.”

The concept of group learning in this case study is important. The learning process in a group was not seen as the sum total of individual learning occurring within the group [17] and [18]. The combination of individual work, group discussions and the use of technological resources signified moving away from a traditionalist perspective of using new technologies as mere complements of existing classroom practices and curriculum content. Teachers must be prepared to adapt their teaching styles and methods according to new developments in technology in education, especially since they will inevitably have repercussions in the classroom. As [19] have pointed out, there is a need for both teachers and student-teachers to be technologically aware and *competent*. Through this case study, the student-teachers were able to see the potential for integrating new technologies, such as video, as resource for a wider sense of learning and in doing so, these future teachers will be better able to conceive of ICTs as a means for their students to extend, transform and apply knowledge.

## 5. REFERENCES

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