

USING A DIGITAL PRESENTER AS A MIXED SOLUTION TO TEACHING AND TRAINING

by **Hervé Thily**

University of Higher-Normandy Teacher Training College

Rouen, France

herve.thily @ univ-rouen.fr

Abstract

The paper presents how a Digital Visual Presenter and Document Camera, used in a teacher training course, can help teachers to introduce new digital technologies into their practice gradually. It discusses the possibilities such a tool can offer to teachers when designing and delivering mainstream foreign language lessons for face-to-face or distance learning environments.

1. Introduction

The introduction of multimedia, Internet and digital technologies this last decade has tremendously enriched the language classroom and the students' learning experience. However the growing pressure by students, school administrations and/or colleagues to adopt these tools rapidly can sometimes be overwhelming, and some language teachers might prefer to embark on e-learning at their own pace while retaining their expertise and collection of teaching realia which, so far, have underpinned their professional practice and expertise. Tools such as a digital presenter (DP), also called Digital Visual Presenter and Document Camera, might help these teachers to introduce new digital technologies into their practice gradually. From basic traditional supports, such as transparencies for overhead projectors, standard slides, original paper documents and even 3-D objects, teachers may easily switch from standard teaching mode to digital supports and services, either to enrich face-to-face sessions or to design and implement a synchronous or asynchronous telepresence service. The paper will present how this tool was used in the case of a teacher training course and discuss the possibilities it can offer to teachers, whether they be tech-savvy or reluctant to "go digital", when designing and delivering mainstream foreign language lessons.

2. The use of a digital presenter in a f2f teaching environment

Figure 1 presents the basic setup of an Elmo DP, which is connected to a video projector to display a host of teaching documents, such as a workbook, as shown in the picture, text or

images on paper, a transparency, or a 3-D object. The teacher faces the projector and may either zoom in or out on a given text or picture. He may also scribble notes on paper or use a pointer to help focus attention on a word or detail of a picture.

While this setup requires no digital document or ICT skill, the DP allows the teacher to save all documents used in the lesson in digital format (on a standard SD card), a great time-saving feature. The DP may also be used in this context by pupils / students with no need to worry about technical mishaps.



Figure 1. THE ELMO DP IN MY LECTURE ROOM WITH THE OPTIONAL LCD MONITOR.

The difference with a standard overhead projector (OHP) appears immediately to students. The colour picture displayed to the class is crystal-clear and includes motion, caused by the teacher, who helps focus attention or suggests answers by pointing to relevant information appearing in the display. One may also use the specific suggestions put forth by Jones (1982) to help make standard OHP documents more efficient in mainstream lessons (coloured transparent pieces of plastic to highlight words or details of a picture, for instance).

While the OHP requires transparencies, the DP accepts any kind of document (paper, transparencies, slides, films, workbooks and even 3-D objects, which otherwise could not be used). One example of this is the picture of a US quarter I display to student teachers during a lecture on video applications in FLT. After viewing the fight between rival gangs in the

opening scenes of Martin Scorsese's film *Gangs of NewYork*[\[1\]](#) and pondering over the puzzling look of Bill the Butcher, I place a quarter on the DP and zoom in on the coin (Figures 2 and 3). I then ask students to provide possible explanations for Bill's glass eye. Without a DP and when lecturing to a large group of students, the same result would be achieved – hopefully – only when all students have passed on the coin within the group, probably having a hasty look at both sides of the coins and missing the hint. With a DP, the operation takes only a couple of seconds and all students view the relevant item collectively as they hear the question. Group work is significantly improved and a higher output is achieved in the same amount of time, thus raising learners' self-confidence in their problem-solving capacities.



Figure 2. BILL THE BUTCHER'S GLASSEYE



Figure 3. A US QUARTER

Another interesting feature to ease the transition towards digital technology is the possibility to convert traditional slides into digital pictures, allowing teachers before lessons to store on an SD stick old cherished collections of slides, prints or transparencies made from a selection of pictures, or any visual material useful for the lesson.

Indeed, the advantages one can see in the use of this device are that it offers a greater range of documents used during lessons such as slides, films and even tiny 3-D objects. The zoom feature allows for selected close-ups to be saved by the teacher and re-used during the lesson and/or future activities. No training for teachers and pupils is necessary to use this equipment, which combines features of an OHP, a digital camera and an opaque projector. The tool also allows sessions to be recorded in order to achieve higher efficiency, or sessions involving students' presentations to the class illustrated with documents displayed through the DP, which can then be reviewed by classmates or the teacher. Recorded sessions may also stand as "best practice" examples. Some DPs are specifically designed to display/record pictures and videos from microscopes and telescopes. They may be used for teaching English

for Specific Purposes, for which teachers need scientific and technical relevant supports to motivate their learners.

Overall, the tool offers a non stressful digital literacy option to teachers who want to progressively integrate ICTs in their class in order to support learning and teaching objectives, to allow unforeseen learning opportunities during a lesson to be explored, or to facilitate and improve repeats of a lesson.

This short review of on-site face-to-face activities is merely a summary of conclusions from my own experience. As it can handle any type of document or 3-D object, a DP will easily suit all types of classroom pedagogy in which colleagues will re-invest all their past experience and collections of supports. What is obvious to users is that a DP helps fine-tune efficient strategies of teachers for the benefit of learners, while speeding up the activities and livening up the lesson. In addition, teachers are irresistibly lured into “going digital” as they feel the necessity, much more through pedagogical incentives than because of technical strains, to build up and deliver more appealing, interactive and efficient lessons. This supports the ICT policy implemented in a growing number of EU-27 member states[2] and paves the way for a dramatically extended learning/teaching space.

3. One step further: combining a DP with extended learning spaces

The collection of documents so easily transferred and saved in a digital format enhances the teaching/learning processes in line with current pedagogy. A teacher eager to provide his learners with extra activities in between lessons will gladly take advantage of the opportunities provided by existing digital communication modes. A pupil will tirelessly go through an appealing demo or exercise, however challenging intellectually, if presented in a proper format and if it opens up on a hands-on application. Out of experience and notwithstanding academic disputes over constructivist collaborative learning versus traditional learning modes, a quantum leap in efficiency is achieved when learners are repeatedly presented multimedia material both during lessons and for follow-up activities in an active learning environment.

While considering the DP’s contribution to second language teaching, it is possible to list activities calling for an increasing involvement of students.

Face-to-face (F2F), on-site activities:

- promote individual effective use of the DP by learners in order to present the class individual or group projects on visual supports (pictures and videos).

- help save and disseminate visual documents such as spidergrams, mind mapping diagrams, pictures and animations in digital format. Pupils may save documents on USB keys when leaving classrooms and/or retrieve pictures and supports from a website providing updated on-line supports and services.

Distant activities (from home, school library, anywhere...):

- foster collaborative group work in between lessons both through institutional and informal networks (from untutored file sharing activities to shared application features on a one-to-one telepresence service mode between learner and teacher).
- provide learners with a reliable telepresence service, involving pro-active and reactive tutoring, the former involving upstream preparation to help pupils successfully overcome foreseeable difficulties and the latter including essentially quick answers to mails and queries. When this is implemented, learners appreciate this reliable lifeline.

The extended learning space may gradually resemble what Mason and Rennie (2006) illustrate in Figure 4. Through the use of digital documents available outside the classroom for homework, efficient pedagogic support for learning, consolidation or just meant to provide more able learners with extra work, one can clearly see how the traditional f2f session extends outside school and working hours. More time is spent by learners on meaningful, appealing subject-related activities, either after or before the lesson. This increases the efficiency of f2f meetings and is also referred to as “blended”, “mixed solution” or “hybrid” learning as it is underpinned by both recurring physical meetings and autonomous, self-paced learning.

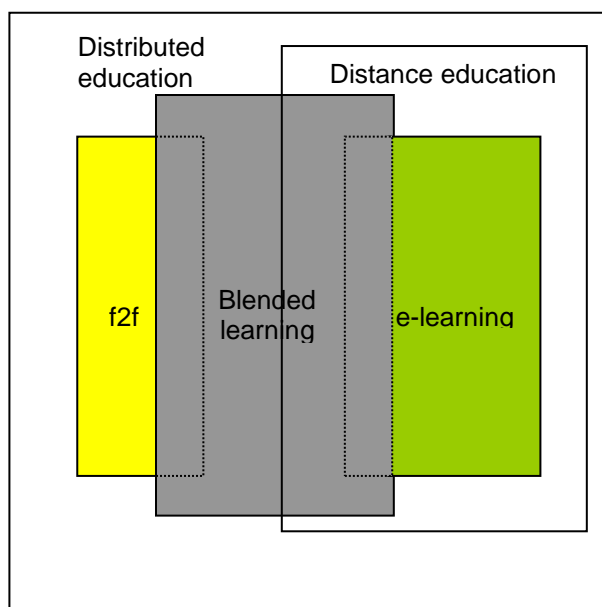


Figure 4. FROM F2F TO DISTRIBUTED EDUCATION (Mason & Rennie, 2006, p. xvii)

This learning mode also overlaps with distance education – which may be the case with children unable to attend school for a long period of time, on account of health problems or travel restrictions. The ultimate dimension of the learning space is achieved in the distributed education mode, which involves a virtually unlimited number of learners and teachers/experts/facilitators available on the worldwide web.

Distance education is generally divided into two modes: the asynchronous mode (such as documents, tutorials and lessons available at all times on the web) and the synchronous mode (often meaning one-to-one sessions between the learner(s) and the teacher). In the latter case, especially for group work, a DP is ideal for distance education and is just as efficient as during f2f classroom meetings. The picture in Figure 5 was taken in 2007 during an EU study visit in Turku, Finland and shows a teacher giving a foreign language lesson (Swedish) with distant pupils through videoconferencing (vcf), conveniently grouped in the living room of a house on a secluded island in the Aaland archipelago, dozens of miles away. This vcf is used to reduce or suppress fatigue, travel time, expenses and to overcome hazards, especially during the winter time.

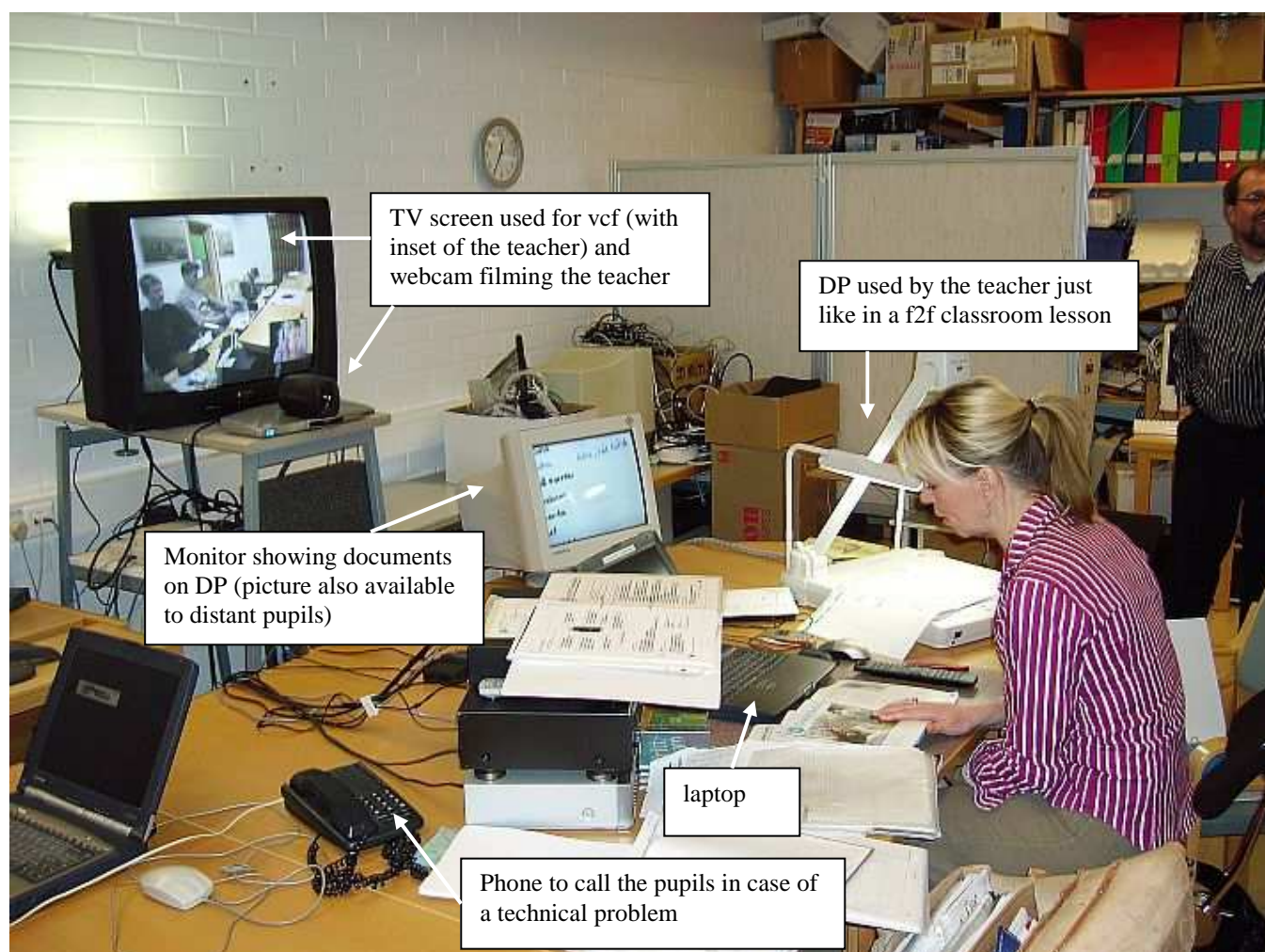


Figure 5. TURUN NORMAALIKOULU – A DISTANT FLT SESSION THROUGH VCF.

Note that the teacher has the DP on her right and the small light grey monitor in front of her shows the words and sentences filmed by the webcam and displayed to pupils. The bigger, black TV set shows the pupils in their living room. They watch the teacher on their TV while the inset shows a smaller picture of the living room. This is a standard layout for synchronous sessions.

The teacher can also use any support available on her laptop and, through her computer, surf on the web to supplement course contents. The learners know they can be given any document to support their activities. On the other hand, the teacher is free to display any document and use the DP as a standard blackboard to take advantage of opportunities and provide the best pedagogy to pupils. I would like to stress once again that this is implemented by the teacher who is solely concerned by pedagogy in a hassle-free environment of which she is totally in control.

Figure 6 illustrates the successful implementation of the equipment: this Finnish pupil in Turun Normaalikoulu illustrates a standard practice observed in several EU study visits. He

uses the teacher's laptop which is connected to a DP, on his right, next to the mouse pad. Such a setup allows pupils' work to be displayed, even while it is in progress. This approach clearly supports good practice and helps build self-confidence, both in IT skills and subject knowledge.



Figure 6. PUPIL USING LAPTOP AND DP.

- Think ahead:
 1. Enquire about existing local/national/EU experiments and networks in order to get acquainted with experienced colleagues, teacher trainers, lecturing researchers, secure budget and assistance while facing pupils and establishment with challenging and appealing objectives for everyone.
 2. Do not shy away from sharing experience with colleagues, either within your school or institution or in your local/national educational network or even by uploading a short video on YouTube or a similar web showcase. This will help other colleagues to become familiar with the equipment and will eventually also provide you with suggestions to improve your own innovative practice.

4. Conclusion

The world over, DPs have turned traditional lessons into interactive, efficient learning sessions while keeping pedagogy at the core of teachers' practice. The presence of a DP in a school or college may disseminate digital literacy and foster teamwork, either in a given subject or through cross-disciplinary aspects. Teachers are irresistibly lured into providing their students/pupils with interactive appealing applications and the shift toward e-learning calls for an acute vision of e-teaching.

As the new learning space and the increasing demands from learners involve new services, the real obstacle for teachers will not lie in technology or pedagogy. The technology

is so intuitive and accessible that little or no specific training is required to handle a DP. The pedagogy, in spite of the digital format, stems naturally from the traditional practice teachers feel confident and proficient in. As lessons go beyond the traditional learning space and working hours to provide a popular and efficient service among learners, it is the institution which may not keep pace with the educational potential of e-learning and fail to grasp the basic rules of genuine lifelong learning.

A website with a huge data warehouse or a bulging portfolio cannot efficiently support pedagogy if its contents are not properly managed (both in technical and didactic terms). The treasure trove amassed by teachers and learners would be largely underexploited without reliable management, which teachers, as individuals and in teams, will have to construct on sound pedagogic, technical and administrative foundations. This venture is by all means a collective one.

Notes

1. Example suggested in the French Ministry of Education brochure: *Accompagnement des Programmes Anglais SCEREN CNDP*, 2003.
2. In France, in schools and colleges of teacher education, this aspect goes both for pupils, teachers and student teachers who all have to comply with digital literacy certificates: the “B2i” (*Brevet Informatique et Internet*) for the former, and for the latter the “C2i2e” (*Certificat Internet et Informatique niveau 2 Enseignant*).

References

- Jones, J. R. H. (1982). *Using the Overhead Projector: Practical Language Teaching*. London: Heinemann.
- Mason, R., & Rennie, F. (2006). *Elearning: The Key Concepts*. Abingdon, UK: Routledge.

Additional reading

- Dalgarno, B. (1996). Constructivist Computer Assisted Learning: theory and techniques. *Proceedings of the 1996 ASCILITE conference*. Retrieved May 15, 2010, from <http://ascilite.org.au/conferences/adelaide96/papers/21.html>.
- Jonassen, D. (2001). Exclusive interview with Professor David Jonassen. Retrieved May 15, 2010, from http://www.elearningpost.com/articles/archives/exclusive_interview_with_professor_david_jonassen/.
- Holzl, A. & Drennan, J. (1999). Southern brakes and plastics case study: An example of putting best theory into best practice for online learning. *Proceedings of the 1999 Teaching and Educational Development Institute (TEDI) conference: Effective Courses, Effective Teaching at University*. Retrieved May 15, 2010, from http://www.tedi.uq.edu.au/Conferences/teach_conference99/papers/Holzl.html

- Martel, A. (2002). Constructivisme et formation à distance: La transition des instructivismes aux constructivismes par les technologies de la communication au service de l'enseignement/apprentissage à distance. Retrieved May 15, 2010 from, <http://www.refad.ca/recherche/constructivisme/constructivisme.html>.
- McKenzie, J. (1999). Scaffolding for success. *The Educational Technology Journal*, 9(4). Retrieved May 15, 2010, from <http://fno.org/dec99/scaffold.html>.
- Nichols, M. (2008). *E-learning in context. E-Primer Series, no.1*. Retrieved May 15, 2010, from <http://akoaooteaoroa.ac.nz/sites/default/files/ng/group-661/n877-1---e-learning-in-context.pdf>.
- Smith, M. K. (2001). Kurt Lewin, groups, experiential learning and action research. Retrieved May 15, 2010, from <http://www.infed.org/thinkers/et-lewin.htm>.