Attitude of VET Trainers towards Virtual Training in Turkey and Romania

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Abstract

Virtual learning and teaching has been a scope of trainers as well as trainees in vocational education and training field. Traditional ways are being replaced by computer-assisted approaches, the main tools of which are web-based virtual training environments, interactive CD-ROMs, etc. However, the use of these training tools is not so common as in other fields of teaching and learning. This paper aims to present the attitudes of trainers towards virtual training tools employed in VET organisations at university level in Turkey and Romania. The present status of virtual training from trainers’ perspective is determined based on focus group interview technique. The data is evaluated using qualitative research approach. The findings indicate that most of the trainers employed in VET organisations in both countries need more knowledge about virtual training environment itself and how to use it.

Key words: Virtual Training, VET Trainers, Attitude of Trainers

Introduction

There are numerous virtual learning environments and, in parallel with this, there are various approaches and tools for creating a virtual learning environment. When we talk about “virtual learning”, in fact, our stress is on two things: computer technology and education. Computer technology is made up of many sub-categories while education is made up of many sub-categories derived from educational models. The use of computer technology enables us to make up learning tools, online learning facilities, cooperative learning aids, web-based learning, etc. In general use, the tool created for this purpose is based on a server to provide learning. In this virtual environment, we can see many aspects of learning, such as material sharing, student assessment procedures, question and answer platforms, etc. (Milligan, 1999). However, this does not mean that virtual learning is limited to such an environment on a server. Computer technologies, like CD-ROMs and DVD-ROM are also considered in this category. Nevertheless, it is to be accepted that the virtual environment presented online is dynamic while the CD-ROMs and DVD-ROMs seem to be static, that is, they are fixed and cannot be changed in terms of new changes or conditions in the field that is to be learned through this virtual environment. However, nowadays, since computer technology has advanced, the facilities to provide both CD-ROMs and on-line environments (WebCTs) have come to be more sophisticated and dynamic.

During the 60's and 70's, teaching and learning tools were nothing but a piece of chalk and a blackboard eraser, teachers and students who met each other face to face inside the classroom during class. In the 80's, videotape programs were used as teaching aids. In the 90's, one-way teaching by computer arrived. And finally today's advanced computer and information network technology has revolutionized our teaching and learning methods. In accord with the development, learning environment has also changed. Students can listen to their teacher or trainers in distant classrooms through PC's and get a simultaneous
view of their teachers and texts as well. They can ask questions and record the "class" for repeated viewing. Training organizations can conduct professional training directly via the computer network. These learning environments are not so different from a teacher-guided class with discussions and tests as well.

In the report “Studies in the context of the E-learning Initiative: Virtual Models of European Universities” (PLS Ramboll: 2004), a key concern was how virtual mobility is being supported in European universities through ICT integration and e-learning. The report found that the majority of universities face major challenges in promoting ICT integration. ICT strategy is very important and those universities that have an ICT strategy are significantly ahead in integration of ICT in administration and organisation and networking. Integration of ICT and e-learning is politically important in the EU in terms of internationalisation and globalisation of education, student demand and interest in increasing the quality of education through ICT. At the national level, integration of ICT should become a key priority with national and regional institutions making a commitment to ITC and the development of networks. There must be increased national flexibility with a commitment to support common standards of quality and assessment and to develop national and international metadata standards.

Virtual learning can be defined as any kind of ICT-based learning arrangement where we can find any combination of distance and face-to-face interaction, and where some kind of virtual time and space is present. However, virtual learning, like learning in general, is to achieve certain pre-defined objectives. These educational objectives form a hierarchy as described in the 50s and 60s (Bloom, B. S., 1956) and his colleagues (Dave, R. H., 1969) in the three fields of personality development: cognitive, affective and psychomotor (taxonomy investigations). Considering this, we can say in order to obtain competent knowledge, virtual learning should be based on four levels of environment: (a) through the acquisition of knowledge (facts, concepts, relations, regularities, procedures, etc.) that is dynamic and integrated into a system - type; (b) the application and practice of knowledge (acquisition of expertise and abilities) through students' interaction - type 2; (c) processing the syllabus requires the co-operation of students (student-teacher communication system - virtual classroom) - type 3; and (d) processing the syllabus through group work, the combination of traditional classroom and electronic education - type 4.

An extensive research (Waldheim: 1987) proved that most people learn most efficiently with one of the three perceptive modalities (visual, auditory, kinaesthetic) and tend to miss or ignore information presented in either of the other two. Accordingly, there are visual, auditory, and kinaesthetic learners. Visual learners remember best what they see: pictures, images, diagrams, flow charts, animations, and videos. If something is simply said to them, they will probably forget it. Auditory learners remember much of what they hear and more of what they hear and then say. They get a lot out of discussion, prefer verbal explanation to visual demonstration, and learn effectively by explaining things to others.

Most learners are visual while most teaching is verbal, namely the information presented is predominantly auditory (lecturing) or a visual presentation of auditory information (words, symbols written in texts and handouts, on transparencies, on a chalkboard, or on a screen). In an electronic teaching-learning environment it would be very important that a learner could select the appropriate modality forms for him. Therefore the electronic teaching materials could content encoded information in different forms by which the learner can choose the adequate modality forms. The developer can attach any verbal and/or written interpretations to animation and can place any interactive elements in this media type by which the students can guide their own learning.

Virtual Learning Environments are inevitably designed with a pedagogical model in mind, that is, not made explicit (Britain and Liber, 1999). It should be kept in mind that a virtual learning environment has pedagogical significance as well as encourages community and collaboration. Modern information technology provides new paradigms to explore and present information. Multimedia technology entails
voice, audio, video and computer visualization in an integrated way. The combination of these technologies in a new type of multimedia environment provides for a new generation of computer-assisted learning. In this context, virtual environments allow to learn assembly tasks and repair routines without the presence of a physical model. However, SME-sized industrial companies and institutes of vocational education do not have the technology and pedagogical skills to develop such a new generation of multimedia learning systems for their needs.

Changes in the educational paradigm will have to lead to essential changes in teachers’ training and train the trainer programs. These changes in the educational paradigm are: a) the use of new technologies to enhance learning and to implement new learning technologies; b) the major change of the role of teachers and trainers from disseminators of knowledge to managers of learning. Technical teacher training institutions may have a driving role in the expansion of these changes in higher education. In technical vocational training, the emphasis has always been on technical knowledge. The knowledge and skills for integrating Information and Communication Technology (ICT) adequately into the learning process is an aspect of the future professional practice of teachers and trainers. The importance of this aspect makes it necessary to anticipate on this development by including core specifications for the use of ICT in the formal job qualifications for teachers and trainers and thus in their education. At the same time, the development of future teacher training should be based upon the same principles as are foreseen for the future educational and training practices in general: monitoring, reflection and research of emergent practices of successfully incorporating technology, individual and flexible delivery of courses and other services. Furthermore, industry throughout Europe emphasizes the need of having a highly professional and well-trained workforce. Obtaining new knowledge and new skills in an attractive and modern way are of equal importance to vocational training.

The aim of this study

This paper aims to present the attitudes of trainers towards virtual training tools employed in VET organisations at university level in Turkey and Romania. The present status of virtual training from trainers’ perspective is determined based on focus group interview technique to evaluate using qualitative research approach.

The limitations of this study

The universe of this study consists of the trainers involved in technical and vocational training organizations at university level in Turkey and Romania. However, the samples are chosen from two technical and vocational faculties and on technical science college in Turkey and one technical faculty in Romania. In a complete study regarding the use of virtual training tools, both the trainers/teachers and the trainees/learners, as the final target group, should be involved. Yet, this study is only based on the interview done with the trainers. This again can be seen anther limitation.

Material and method

The Focus Group Interview

This study is based on a qualitative research technique: focus group interview. The meeting room was quiet, comfortable, and free from outside distractions. Participants all sat around a table so they could see each other. The chairs were comfortable. Light refreshments were served in such a way as not to distract from the discussion.

The authors were the facilitators to the focus group discussion done in Turkey and Romania. The facilitators directed the discussion without being a part of it. The facilitators were able to create a relaxed, informal atmosphere where people felt free to express their opinions. The facilitators avoided
expressing their own opinions or making judgments on the opinions of the participants. The facilitator asked a series of open-ended questions from general to specific in order to get the participants to express their opinions, experiences, and suggestions. The facilitator allowed the discussion to lead in new directions as long as the topics pertained to the subject of the focus group interview. All members of the group were encouraged to participate so that only one person should not be allowed to dominate the discussion. The sessions were tape recorded and transcribed after the meeting. A member from each group checked the texts.

Four groups were formed of the trainers who were willing to participate in the interview. All of them had their PhDs in Technical Education or Sciences. In the Turkey part of the study, two groups were formed. In each group, two trainers were from the Technical Education Faculty, two trainers were from Technical Vocational Faculty and one trainer was from the Technical Science College. Two of the trainers were females and three were males in each group. In the Romanian part, the same number of groups of the same number of trainers was formed from the Shoe Design and Technology and From Clothing Technology departments of the Faculty of Leather and Textile, “Gh. Asachi” Technical University in Romania. Each group consisted of two males and three females. For the interview, the same procedures were applied in each party.

The open-ended questions were arranged in such a way as to learn about the following:
1- Are the trainers for or against using ICT in classes?
2- Do they find themselves well prepared to manage virtual learning tools?
3-What types of virtual learning tools do they prefer?
4- Do they find virtual learning facilities sufficient in their training organization?

The findings with less support than the half of the participants were ignored here.

The Data Analysis
The focus group interview generated a lot of information. This information was coded and summarized for analysis and discovery. The tape recording was transcribed, omitting the names of the speakers and using codes like T1, T2, … for the participants in Turkey and R1, R2, … for the participants in Romania. After the discussion was carefully typed, the authors read the transcript looking for key words and concepts that reoccur. Then the keywords were grouped and phrased into categories. After the key words and phases were grouped into categories, the interpretation step began and the central themes and issues emerged.

Findings

With the analysis of the data collected through the focus group interview, the following were found:

1- All the trainers/participants are for the use of ICT and other virtual training tools in the classrooms: “For me, virtual training and learning is necessary and will be essential in the future”, “I am aware of the fact that using ICT is necessary in the classrooms”, “I feel it necessary while teaching in the classroom” are the common statements by the participants.

2- All the trainers think they need more training to use this approach in their classes: “I feel it necessary but I don’t know what to use and how to use”, “I want to use it but where and how? I must learn more”, “My organisation should provide me with more facilities and more training to apply such approaches in the classroom” are some of the common expressions by the participants.

3- All the participants agree that their organisations lack sufficient infrastructure regarding virtual training: “I have a computer and can use it only to prepare lesson materials”, “personally I can not
afford to buy such equipment for that purpose”, “My organisation has such facilities but they are outdated and can’t be used for this purpose” are the statements commonly expressed by the participants.

4- Nearly all the participants/trainers complain that they are overloaded with the lessons and don’t have enough time to work with such tools: 16 of the participants (10 from Romania and 6 from Turkey) blame their organisations for overloading them with the lessons. “Still I can use ICT in my classes but I have so many lessons and students”, “My organisation should give me fewer lessons, more time and more money”, “I have too many classes and I can use my laptop only to prepare some documents for my classes” are their common expressions.

5- More than half of the participants feel that their organisation is not suitable for such training: 10 participants form Turkey and 6 participants from Romania express that their organisation is not physically fit for such training. “I want to use it but where and how?”, I have … so many students and can’t use such approaches in narrow classes with too many students”, “Classes in my organisation do not have enough technical facilities to use these things” are their typical expressions.

Discussion

The findings above indicate that virtual learning in Turkey and Romania is still in its formative period. However, virtual training appears to offer an option for the students in both countries. It can provide instructionally effective, highly interactive learning experiences that are flexible, equitable, and responsive to individual needs (Rogers, 1996). It will at the time lessen the expenditure spent on education as studies show that it is more cost-effective than traditional programs, especially with large student enrolments and a good support system for students (Daniel, 1996). Unit costs per student are below those of conventional programs (Daniel, 1996).

All the trainers/participants are for the use of ICT and other virtual training tools in the classrooms. That means the trainers do not have resistance to enter in the technological era, unlike the ones detected by Franco A. J. (2004) in his article The Challenges Of Virtual Education. There are probably two big factors that influence this resistance: ignorance and lack of motivation, the last one due to certain unconscious resistance. From this point of view, it is possible to say that all the trainers in both countries are aware of this training tool and they have enough motivation.

All the trainers think they need more training to use this approach in their classes. They are also aware that they have to be trained to change their pedagogical level in such a way as to be in accord with the pedagogy required by virtual training approach. It is a fact that to teach in a virtual classroom doesn’t mean to film a traditional class and to put it in the internet so that the students attend virtually; neither it means to record it, to transcribe it in text and then to copy it in a web page. It means to transform the traditional pedagogy toward an electronic pedagogy in which the professor becomes a facilitator of the student's learning process and an active pedagogy supporter. This "new" pedagogy supposes that the teacher should be qualified in new pedagogic techniques. This can only be achieved through a well-designed training programme for the trainers.

All the participants agree that their organisations lack sufficient infrastructure regarding virtual training. There is a lack of technical and didactical support to trainers/teachers for using ICT, in terms of using web-based platforms/ systems or digitisation of teaching materials. They rightly accuse of the training organisations, as they do not have essential infrastructure for virtual training. Here, the strategies will promote training in the new techniques, and the administrative staff should make the necessary to push
trainers to participate in them, since we have verified that when this process depends on the trainers’ will, they resist changing.

Nearly all the participants/trainers complain that they are overloaded with the lessons and don’t have enough time to learn themselves how to work with such tools. Many trainers allege that excessive workload is the one that doesn't leave time to do research or to enter these new fields of the virtual education. The board of the university can establish mechanisms to verify this and, in that sense, to make the appropriate modifications so that in each professor's workload there’s a space in this sense.

More than half of the participants feel that their organisation is not suitable for such training. To implement technologies that allow virtual training, it’s necessary to have more WebCT equipment all over the learning environment. Both the trainers and the trainees can be provided with a computer with an internet connection. The technological equipment and the physically fitness of the classrooms for this purpose can be ensured if the overall approach of a training organisation is towards ICT use in learning environments.

Recommendations

The following recommendations can be given to eradicate the challenges displayed above:

a. It is clear from the findings that the trainers employed in VET need special training for virtual training. Teaching in virtual learning environments needs competence in technological (so-called hard skills) and organisational aspects as well as new skills in applying relevant didactical methods, moderating/facilitating, etc. (so-called soft skills).

b. Technological tools should be provided by the training organisation so that the trainers can facilitate them easily.

c. Learning environments, resources and materials must be specifically designed for virtual learning.

d. The division of labour for trainers and other staff involved in virtual training should recognise the difference in virtual learning environments workloads.

e. The use of virtual learning environments needs to be promoted through collaboration at the national and European level so that more innovative and standardised virtual training materials can be available.

f. International virtual learning environment activities demonstrate physical and economic problems, and thus such challenges should also be addressed.

References


