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Actual trend in education: teaching with power-point. A romanian case study[1]

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Abstract: This paper proposed to evaluate the degree to which 127 teachers use PowerPoint presentations in some Romanian Schools (Pre-schools, Primary Schools, Gymnasium, High Schools and one University). Do the teachers use PowerPoint presentations? Are there significant differences between the Education Levels? The teacher's ability to use computer influence the use of presentations in teaching? The popularity of the CAL and PowerPoint use from this compared analyse and the relation between using computer in classrooms and teachers IT competence confirms the idea that in Initial and Continuing Teacher Training classes to enable future teachers and teachers to computer use in teaching must not be neglected.

Riassunto: Questo documento propone di valutare il grado in quale 127 professori utilizzano le presentazioni PowerPoint in diversi tipi di scuole romene (scuole d'infanzia, scuole primarie, scuole ginnasiali, licei e una università). Utilizzano i professori le presentazioni PowerPoint? Ci sono significative differenze tra i livelli di formazione? La capacità del docente di utilizzare il computer influenza l'uso delle presentazioni nella didattica? La popolarità di utilizzare CAL e PowerPoint in quest'analisi comparativo e la relazione tra l'uso del computer nelle aule e le competenze IT degli insegnanti conferma l'idea che nella formazione iniziale e continua non dev'essere trascurato l'uso del computer nella didattica dai futuri insegnanti e dai professori.

Keywords: *Keywords: PowerPoint, teaching, teachers education, teachers, learners.*

Changes in the Romanian Society in the context of Knowledge based Society and Globalizations tendencies put us in the situation to research several important problems raised form this context. For the project PERFORMER, which will develop a new Master Programme for the Pre-school and Primary Education specialists we tried to establish teachers needs and ability to use computers in classrooms at European Standards.

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[1] *The work is the product of research conducted within the project PERFORMER.*

The preoccupation for Education Quality is particularly influenced, among others factors, by the quality of teacher's education and the methods used. Using computer in teaching-learning-assessment activity it is no more "trendy" or a new practice but has become a necessity. For this reason we wanted to evaluate the degree to which teachers use especially PowerPoint presentations in Romanian schools. This compared analyse we hoped to confirm the idea that in Initial and Continuing Teacher Training classes to enable future teachers and teachers to use efficient the computers in teaching must not be neglected.

We will present a few theoretical perspectives on this matter we have considered in this research. The first perspectives are Alavi and Leidner's (2001) Framework for Technology Mediated Learning (TML) and Piccoli and all.'s (2001) Model of Virtual Learning (cited in Johnson, Hornik and Salas, 2008). These two models summarize all important parameters that contribute to the effectiveness of the aims of learning: design and pedagogical structure, characteristics of the learner and the taught, type of technology used and the interactions between learners. Therefore, the advantages of computer use in teaching are "saving time, cognitive achievement, facilities for simulation of phenomena, processes, shares of computer skills" (Cerghit, Neacsu, Negreț-Dobridor, Pânișoară, 2001, 99). One of the most popular eLearning tool used especially in teaching are presentations made with Microsoft Office PowerPoint (regardless the version used). Popularity of the "presentations phenomenon" can be seen by the number of such files present on Internet. For a simple google search the term "PowePoint" returns 1,440,000,000 results, for "ppt" 302,000,000 and other 18,400,000 references for "pptx", but among them are sites full of tens and hundreds of presentations.

In education presentations are often used especially in the universities and even if a large number of teachers and researchers praise them in literature reviews we can find three distinct perspectives, each with supporting arguments. Craig and Amernic (2006, 147-149) summarize some opinions regarding the usefulness of the presentations used in training:

- presentations have positive effects (Szabo& Hastings, 2000), (Bartsch & Cobern, 2003), (Shwom and Keller, 2003), (Vernadakis, N., 2011) and so on.
- contrary opinions sustain that are boring, monotone, stupid. (Tufte, 2003), (Nunberg, 1999), (Stewart, 2001) and so on.
- neutral views, which presents both the benefits and disadvantages

or claim that there is no difference between using presentation or traditional methods. (Attila, Hastings, 2000), Bostock (2005), Jones (2003) and so on.

Certainly in both opposite cases presented above for an analysis we can find criteria that could explain the oscillation between these two positions. Name but a few: how presentations are design, information or applications included (volume, type, selection), scientifically, IT and psycho-educational teacher's skills, role and place in the teaching strategy, topic, learning aims, audience characteristics, student's style learning, teacher's personality structure and belief in the "power" of technology and PowerPoint in education. Of course the list is open and takes into account that many others factors can intervene when a research is planned, realised and analysed.

To Craig and Amernic idea "PowerPoint should be recognized as a new communication medium that is fundamentally changing the nature and dynamic of how we teach" (2006, 156) we would like to add the responsibility and the care that a teacher should use when he decides to use PowerPoint in teaching so that to have more form the advantages and less, preferably none form the disadvantages.

Presentation of the Study

The current study is extracted from a wider study that aimed to establish if the CAL method (Computer Assisted Learning) is used in schools in the three neighboured counties and its particular use (Norel, Laurentiu, 2009, 38). Based on this research we have discovered that 81.9% of teachers' surveyed (127 teachers) have used CAL at least once in teaching strategy.

The study has as main objectives:
1. evaluate the degree to which teachers use PowerPoint presentations comparing teachers from Pre-schools, Primary Schools, Gymnasium, High Schools and one University;
2. underline the attitude towards computer use and the current use of PowerPoint in classes;
3. correlate computer use ability with the use of presentations in teaching.

For these objectives we developed a questionnaire with 16 items containing a total of nine items with dual or multiple choices and seven open

responses. The data collected were coded and analysed using computer program Statistical Package for the Social Sciences (SPSS) 14.00.

This questionnaire was applied to a lot of 127 teachers for 17 different disciplines from, three counties of Romania: Brasov, Covasna and Prahova: 24.4% Pre-Schools and Primary Schools teachers, 48% Gymnasium and High Schools/National Colleges teachers, 21.3% University professors and 3.9% teachers did not answer this item (see Figure 1).
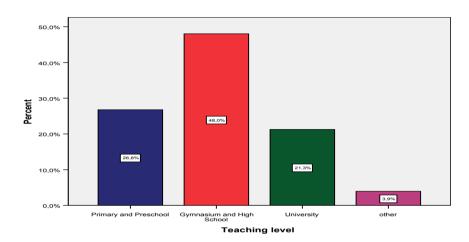

Figure 1. *Distribution of the population after the criteria Teaching Level*

The lot distribution to the criterion gender is as follows: 78.2% female, 13.5% men and 10.3% of the participants have not responded. The age of the participant is well represented 26% have between 20-30 years, 39% between 31-40 years, 28% between 41-50 years and 29% have over 50 years. 45.2% of teachers work in Elementary Schools, 22.2% at the University, 21.4% in High Schools and National Colleges, 4% in Kindergartens, and 7.1% not stated. For the criteria length of service - codified into time intervals: 4.7% (1-3 years), 6.3% (3-5 years), 18.9% (5-10 years), 26.8% (10-20 years), 21.3% (20-30 years) and 15.7% over 30 years, and 6.3% refused to complete this item. So the length of employment with the greatest frequency is between 10-20 years.

Results of the study

Results of the study shows that from the 81,8% teachers that use CAL in teaching, 98.6% of them preferred PowerPoint presentations to other applications or together with others applications. The percent is quite impressive. When we analyse the situation differentiated by the teaching level we have another surprise because there are not very significant differences. We have expected that in University the percent to be much higher than in Pre-schools and Primary Schools. And, as can be seen on Figure 2 it is contrary 28,99% teachers are PPT users at the University, 37,68% teachers use PPT in Gymnasium and High Schools and 30,43% in Pre-schools and Primary Schools. Still, the difference can be explained by the number of participant teachers form every category, which was not equal (just for the University and Preschool and Primary School).
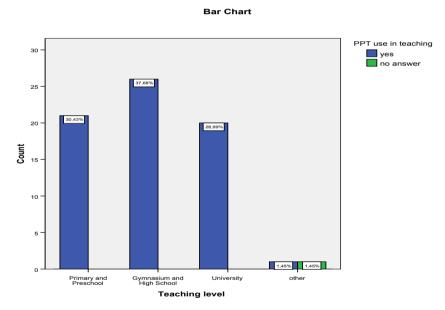

Figure 2. *PowerPoint use in teaching compared by Teaching Level*

Questioned teacher's opinion about using the computer in education it is mostly a favourable one 94,4 % and from all 76,6% actually declare that they use the computer in the learning strategy. We want to emphasise the

link between the two results presented above. As it results the Romanian teachers have an open attitude towards computer and even more they actually use them in learning settings. Although they use it often their expectations when asked to evaluate the student's agreeability produced by computers in learning were medium. It seems that are preferred by Gymnasium and High Schools learners (45,7%), followed by Preschool and Primary School pupils (26%), University students (19,7%) and others particular cases that stated positive student's agreeability added still 1,6% of the teachers. Only at the University level we registered an percent of 0,8% that perceive negative student's agreeability and we have more no responses for each category.

Introducing in the analyse the criteria frequency of using presentation in teaching (see below Figure 3.) we have obtained the following results: teachers form University and Gymnasium and High School have the same and highest percent and use often PowerPoint presentation of 5,79%. For medium PPT use we have 12,4% for Gymnasium and High School, 9,09% Preschool and Primary School then, 3,31% in University.
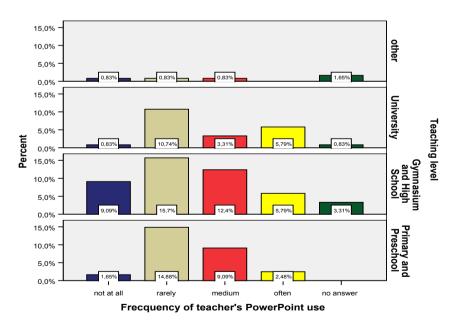

Figure 3. *Frequency of teacher's PowerPoint use*

RI-PENSARE LA PEDAGOGIA, RI-PENSARE L'EDUCAZIONE

Rarely for close percent in Gymnasium and High School and Preschool and Primary School (15,7% and 14,88%) and 10,74% for the University. Never use presentations declared 9,09% teachers from Gymnasium and High School, 1,65% from Preschool and Primary School and 0,83% from the University. In conclusion for the three levels of education are well represented the tendency to use medium and rarely presentations.

Declared teacher's computer use ability is for the highest percent 64,8% medium, then 22,8% declares themselves advanced, 11% with low ability and 1,6% did not declare. So, at least 85% of the teachers have good and very good IT competence.

For the third study objective there was found between teacher's computer use ability and Frequency of teacher's PowerPoint use a low but significant Spearman correlation of rho=0,295, at p<0,001.

Discussions

As it was showed before Romanian teacher are open and willing to change and computer was embraced in their activity. There is important to acknowledge that teachers are aware of the advantages and disadvantages of PowerPoint and computer, in generally in education. The research could be spread to a national level so we can have a better look and to become more representative.

Of course that are still others interesting problems connected to this research matter a Need Analyse will revel them – the specific area of competences, skills and information that teacher need at Master Level, particularly cases linked to the institutions infrastructure and equipment and the provisions of the Romanian Education System.

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