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MONITORING THE TEACHERS ATTITUDE IN ADOPTING THE NEW INFORMATION TECHNOLOGIES

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ABSTRACT

The information society is sweeping the educators towards a future highly dependent upon new Information and Communication Technologies.

Technological proliferation, although modest in the region, is particularly evident in classrooms. Teachers have access to certain resources that permit and oblige them to introduce innovative methods. But "Teachers are among the most conservative professionals. While they are extremely creative in their classrooms, and tremendous risk takers in the way they work with the students, they remain conservative and protective of their subject matter".

In this article we present a part of our research findings concerning the attitudes and perceptions of a significant number of school teachers, from the primary and secondary schools in the Republic of Macedonia. Our goal was to explore their abilities, capabilities, expectations, literacy in the utilization of computers and Internet. The interviews reveal that, the teachers don't recognize the necessity of the new technologies in the teaching process, or they don't see the connection of computer skills to classroom learning. Their answers are ambiguous and sometimes contradictory.

Adequate training for teachers in technology utilization emerges as a primary goal of our educational system. Training programs that involve in-class experience and on-the-job performance will make them redefine their role and gain their sense of control over technology.

INTRODUCTION

The inquiry as a part of a qualitative research project was conducted by semi-structured, in-depth personal interviews with 40 schoolteachers in one primary and one secondary school from Skopje. The concept of the methodology used is adapted from the one published by Wiliam J. Kortz from Sam Houston State University. However, we differ in the proposed areas or themes of interest for our study. The participants ranged from complete non-users of the new technologies to those that are able to perform some kind of accomplishment on the job. The research was conducted according to the ethical principles for research, keeping the confidentiality of the names and individual materials. The design of the questions was open-ended and non-directive as much as possible. That means that the participants were allowed to add whatever they felt important for the study, apart from the questions or question themes.

The questions in the interviews provided several noteworthy themes, yet the following culminated to a significant level:

- Personal knowledge of computers
- Personal interest in computers
- The role of computers in the classroom
- Availability and adequacy of resources
- Availability and adequacy of training
- How the educators judge their pupils/students interest and experience in computers

FINDINGS

Personal knowledge

Surprisingly enough, although the teachers are not masters in the computer skills, they are not suffering from "technophobia". Most of them, about 90%, are heavily using all kinds of technology like cell phones, fax, video, DVD etc. With computers, some 50 % showed some way of familiarity. Out of it, the technology they use most often is: word processing software (90%), Internet (60%), presentation software (30%), drawing software (20%) and other (10%). Only 5% declared that they are strong resisters to technology use. But, sadly enough, the percentage of those eager to use it is also low, 10%.

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Personal interest

The set of questions that cover this area was very complex. It didn't only explore the teacher's interest into computers but was rather aimed to examine critically their motives, attitudes, emotions, fears and expectations concerning the new technologies.

Here the findings are very interesting. The attitudes of the educators towards new technologies are characterized by basic ambiguity or even contradiction. The similar research conducted by Katharina Diamandaki from the Department of Communication and Mass Media from the University of Athens for the Greek educators, had very close findings and conclusions in this particular area of interest (Diamandaki, 2001).

Our findings that support the thesis of complete confusion and ambiguity in using new technologies could be summarized in:

- The teachers are *fascinated* about what the computers can do (90%), but many think that it is *not applicable in the teaching process* (70%);
- The computer might *improve their status* in the classroom (80%), but in the same time they fear that it will *substitute the teacher* himself (40%).
- About 40% see the computer only as an *additional tool* in the teaching process, with very limited usefulness.
- Being familiar with computers for 50% means that they will have an *advantage* over their students who are more involved in the new technologies
- The computer will *improve the communication* in the classroom (30%), while 70% think that it will *diminish the human contact*.

From the findings, one can conclude that due to their contradictory perception and representation of the computer, the teachers have very unclear and ambivalent attitude. Although almost all the participants recognize the broader, social necessity of computers and particularly of Internet, they feel insecure, anxious and even stressed when it comes to their practical use.

The role of computers in the classroom

Most surprisingly, our teachers are *not convinced that they need the computers in their teaching process (80%)*. Some of them could accept it, but only as a supplementary technology which is used sporadically (40%). Very few teachers have realized the essential difference of incorporating the technologies on a daily basis as an integral part of the teaching/learning process.

Many are convinced that the computers are only useful in administrative work (60%) and there are those who relate its application only with mathematics and similar sciences (20%). There are even educators who associate computers with a specific futuristic society, highly inhuman and technocratic (5%).

Availability and adequacy of resources

One can always argue that there are not enough resources available both, for the students and the teachers. Our survey showed that the resources in our schools are well below some European standards. The schools in our survey have only one fully equipped classroom (for 8-10 students) and sporadically placed PC-s, mostly in service for the administrative work. The participants also complained that even though some of them had a computer in their room, it was down a majority of time. That certainly doesn't satisfy even minimum prerequisites for closer incorporation of computers into the teaching process.

But, the worse thing comes with the software equipment. Apart from the Office Administration software and Internet (the lines are disconnected from time to time, mostly due to the irregular monthly payments or due to the poor infrastructure), the computers are not supplied with any kind of educational software. Here we find part of the answer of the very frustrating and disturbing opinion of the teachers that they don't see the role of the computers in the classroom.

Availability and adequacy of training

As predominantly middle-aged female population, most of the teachers have been reluctant to take private lessons in computers (15%). On the other hand, they have been offered some courses as a part of their vocational training, but very few responded (30%). Only after a literacy course their confidence and anxiety slightly improved. The most disturbing thing is that, even those who are computer literate don't see the connection of computer skills to classroom learning. Our monitoring shows that it is not enough to take a sporadic training course for specific software. Such training only relates to the opportunity to do the same thing we have always done, just adding the

technology and perhaps making the users "more efficient". Evidently there are no real advantages, for an example, in transferring lectures from one medium to another. At least there is no ad-on value for both, the teachers and the students. The next level of opportunity in using new technology would be to be able to do something different, something that they would not be able to do without use of the new technology. For an example, rather than developing their own content for a lecture or a course, they could set student activities to use relevant resources already developed online and available on the Web. This enables the students to explore subject environments in simulated settings. The teachers and the students will be able to communicate and interact to solve various problems within those environments. (Dickey, 1999; Law et al., 2000; Jonassen, 2000)

How the educators judge their pupils/students interest and experience in computers

In this area of our interest, we got expected results. Through their interviews, educators assessed that the children are more familiar with the new technologies than themselves. Furthermore, children have positive attitude towards computers, the use of which they greatly enjoy. The teachers portrayed the children as a population that gained a privilege and generational right to use the new technologies. This is certainly another source of frustration for the teachers. To be familiar with computers for 50% of the interviewed means that they will have an *advantage* over their students who are more involved in the new technologies than themselves.

CONCLUSIONS

The relationship between the use of new technologies, especially ICT, starting from the basic to the higher education, academic practices and the varied contexts in which these practices occur, are complex and fast changing. These complexities can be investigated, first of all, by examining staff perceptions of their role, the role of technology and its use in the institutions. In our research we have made an attempt to explore and cross-reference these major points. The findings are highly disturbing.

They could be summarized in one sentence: Our educators are not motivated and worst of all don't see the point in using the new technologies and methodologies in their teaching process.

On the other hand, the uncritical adoption of technology to different educational settings has been proven as counterproductive. Because of the perceived benefits which technology can bring, there is a danger that the whole education becomes captive to problematic use of technologies. Different aspects of that particular problem have also emerged through our research project.

The issues concerning the role of the teacher and the position of the institutions in the new era are neither trivial, nor can be resolved over night. There is an evident lack of a unique strategy or program for ICT introduction and its use in our schools. That places the root of the problem within the institutions of higher education for the future teachers, different pedagogy faculties and similar schools within the educational system. The curriculum in Information and Communication Technologies should be revised and restructured. It should establish a unity of cooperation and exchange of ideas between all the actors in the process: university lecturers, students and teachers on the field. Those links should be created and maintained through sound practical work. We should all change our work practices and the changes refer to the way we work, how we work, who we work with and what we work on. New technologies place us in a different position to that we have previously been in.

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