



ICT Pedagogy and my curriculum

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1. ICT between needs and expectations

[EUN-Petru] Hello, everyone and thank you for joining us. Today we are going to discuss about ICT Pedagogy.

[Timisoara] How many hours of computer science do you have per week in elementary school?

[Xenaslo] In Slovenia it isn't strictly in the curriculum but you can put the hours in yourself.

[Guest 74564] Is there a computer in every classroom?

[Timisoara] In our school the computers are distributed in six classes and two labs.

[EUN-Petru] In your view, what is ICT Pedagogy? Should it interest only the teachers of computer science teachers or all of them?

[Xenaslo] I think it is both.

[Raluca] In my opinion ICT pedagogy is a group of methods and principles which help teachers of all school subjects to implement and run lessons using computers.

[Hennie] ICT should be an integrated part of other school subjects, I think and not a isolated subject as such.

[Timisoara] We consider that all the teachers should use computers for their lessons. This helps them to achieve and improve pupils' outcomes and expectations.

[Xenaslo] It is also a way of motivating pupils and students to learn. Today they have a reason.

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[Leif] ICT as a school subject should be abolished. There is no “use of the pencil” school subject.

[Hennie] I really do agree with Leif, but what about the uninterested teachers?

[Guest74564] The computer is first of all a way of learning faster. A computer connected to the Internet facilitates access to virtual libraries.

[Xenaslo] Leif, why abolished? It should be considered as a tool.

[Leif] I have stopped teaching my students to use the computer. I tell them: here is the computer, write the essay and mail it to me.

[Pavlina] But if you “don’t use pencil”, it may cause some problems.

[EUN-Petru] Right, Leif. There are many countries in the world, where a computer is used only for learning programming languages, in school.

[Bjohnny] In my view it should deal with the question of how all teachers can make the most of the Internet.

[Maidu] I think that a computer can help every teacher because it is a learning equipment which allows access to the huge potential of the World Wide Web.

[Bjohnny] I think Maidu made a good point in here. I also think it should be seen as an equipment like say the video and teachers should how to exploit its potentials.

[EUN-Sophie] Leif, how do you do with pupils who cannot use a computer? Because e.g. they don’t have any at home. Isn’t it a bit “radical”?

[Leif] All my students have a computer at home.

[Timisoara] Leif, do you work in groups or with the whole class?

[Leif] Timisoara, usually the students can choose between sitting in the classroom or in the computer lab.

2. From passive to active learning

[EUN-Petru] If on-line resources are available, how do you organise teaching and learning more efficient? Does the ‘revolution’ in ICT education stimulate teachers to behave accordingly, to bring new opportunities in classroom for their pupils? Is there any negative reaction of teachers who refuse to make such a use?

[Xenaslo] It is difficult to get young people to learn and study and do things. But the computers get even the slower pupils and difficult ones minds clicking.

[Hennie] I use on-line resources for my pupils to help them to communicate with pupils in the Netherlands. Also, I use a computer for the other lessons such as geography, history and so on. I am delighted to teach my pupils to use the Internet. This complements writing and reading activities.

[Raluca] A computer may be a good ‘evaluator’ not only for pupils but also for ourselves, don’t you think so?

[Leif] Raluca, only for certain kind of knowledge.

[Maidu] It is difficult ask older teachers to change teaching their teaching style, but universities might consider this task for the upcoming years.

[Pia] ICT has got big potential for learning.

[Timisoara] Leif, do your students make computers’ programs or they are only users of computers?

[Leif] Timisoara, they don’t program in my lessons. I have Norwegian as my subject.

[EUN-Petru] As you know, a computer changes completely the teaching and learning approaches. What do you think about the dominant role of teacher in conveying knowledge? Do you think that the passive role of the pupils is still part of the picture in the new learning environment, which enables more interaction?

[Xenaslo] Petru, many teachers are still a bit sceptical in using ICT. I think they need to be motivated into using it more often as well as the resources. Mind you the biggest problem is of course language.

[Leif] I agree, Petru, the computer as a tool has a great potential changing the way students learn so we will have less passive listening.

[Xenaslo] The teacher mustn't have the dominant role all the time. Sometimes he/she is the advisor, which is evident when the kids are using computers.

[Bjohunny] Unfortunately, generally speaking, in Hungary few teachers implement ICT in their teaching. Teachers still see this as a highly sophisticated tool and therefore its operation beyond their understanding.

[Timisoara] Petru, in no way should the pupils have a passive role in the new environment. The teacher should have a discrete presence during the lesson.

[Raluca] I think that using IT makes the lessons much interesting for pupils and their role won't be passive using it.

[EUN-Sophie] ICT is something pupils really like to use, it's "fashionable" in a way.

[EUN- Sophie] Leif, have you noticed a difference in pupils works and results when they use the computer and when they don't?

[Leif] We have had 800 years of teachers giving lectures. They should have stopped this tradition as book got affordable.

[Guest 74564] In Romania the fact that not all the students have at home a computer leads to its utilisation to be difficult.

[Pavlina] Is that a way for your pupils to forget about books and their role in our lives and to become addicted to the Internet?

3. Pupils and teachers, both learners

[EUN-Petru] Sometimes, teachers may be learners, because our pupils might become more experienced than us in using modern technologies. What do you think about that?

[Xenaslo] We all have to be aware of the fact that we are still pioneers in the field as far as bringing ICT into the classroom especially into the primary and lower secondary schools.

[Leif] For three years my students turned work electronically. The last year, through a Learning Management System they wrote their essay for the final exam, on a computer. The results were very good, better than the classic marks for a paper exam.

[Xenaslo] Petru, that's true and that's how it should be? The fact that you are a teacher doesn't mean you are good and that you know everything. There should be a reciprocal learning going on all the time.

[Maidu] I'm sure that also in future we haven't computerised every class for every teacher-it's better to organize so-that ICT-using is only one learning method and if you want to learn in traditional way you can do it.

[Xenaslo] Yes, Maidu, using ICT is an option that leads to higher goals in learning than not using it.

[Hennie] I think it is important to teach pupils to pay attention to both books and computers according to their needs.

[Leif] Maidu, yes but when you use a learning platform – all students must use it otherwise it wouldn't be a good idea to have two groups of pupils, one working on computers and the second group writing their essay on paper.

[EUN-Petru] Why a lesson, not only a computer science lesson, becomes more interesting for pupils if it takes place into the computer lab?

[Raluca] For an abstract science, as Chemistry, they can “see” inside atoms or molecules, E.G.

[B]ohnny] One thing is for sure, the Internet is trendy and it is a vast materials resource, and gives the opportunity to open up schools to the real world. Students can talk with experts, can find out what foreign peers think about the same issue, etc.

[EUN-Petru] Right, Raluca, a computer changes everything in terms of intuitive didactical support.

4. A book or a computer?

[EUN-Petru] Talking about computers: reading from screen and reading from paper is not the same. Do you encourage your pupils to swap a book with a computer?

[Guest74564] I don't think I would swap a book with a computer.

[Timisoara] It is not a good idea to change a book for a computer. Both book and computer have their own advantages and drawbacks. If somebody would ask me to choose between them, I would take the book, certainly.

[Raluca] You can never swap a book with a computer, everything have his own role.

[EUN-Sophie] I'm sure that school books will always be used, especially when learning. Lot of studied have been carried on in the field of “reading on a screen”.

[Xenaslo] You can't swap a book with a computer but the computer can add to the information in the book.

[EUN-Sophie] Reading on screen is very exhausting and most people just red between the lines, they don't really “absorb” what is written.

[Leif] Last school year I also taught politics and I coordinated a project which encouraged pupils to use only on-line resources. In this context I would like to say that many books will be soon outdated.

[Pia] I thing ICT is a process. In many ways it seems to be in addition to the curriculum. I thing it should be the key learning strategy.

5. Traditional teaching and new technologies

[EUN-Petru] Imagine you are in a special position when the world likes you to list three reasons why teachers should be convinced to combine traditional teaching with modern technologies?

[Hennie] Three reasons: communication, information, and comparison.

[Ana] Communication three times should be my reasons.

[Xenaslo] My three reasons: 1) it makes global participation between pupils and teacher possible 2) teacher can exchange different approaches to teaching and 3) it gives pupils a reason to do the task at hand because they need motivation.

[Bjohnny] Modern technology, and to be more precise the Internet gives people the opportunity to communicate here resources, opinion, and carries the potential of equalizing the different part of the world.

[Timisoara] It's more attractive, assures interactivity, easy communication.

[Raluca] Reasons: make the lessons much attractive for pupils; the possibility to find quickly new information and the freshness of this method, why not?

[Leif] Petru, if the exams are to be done with computers, the teacher will have to use them. In Norway we will try in the subject of Maths coming spring.

[EUN-Sophie] Leif, short question: you never have bugs during the exam on a computer? Or to mention that but I remember I had to pass my computer science exam again at university because my file had not been saved properly on my floppy.

[Leif] Sophie, sure, you have to have some kind of backup!

[EUN-Petru] Leif, do you think that teachers are too conservators?

[Guest 74564] We need to remain opened to what's new and to combine traditional and new teaching methods.

[Ana] One of the biggest problems with ICT at school, I think, it's the technical problems we face out and the lack of computers for a whole class. Most of the teachers are not prepared to solve these problems.

[Leif] Petru, we see that you have to use the exam as a mild pressure to make schools invest in more equipment and to make teachers who would otherwise not use computers use them.

[Xenaslo] There will never be enough computers for everyone. So we have to use the ones we have wisely.

[Ana] I agree Xenaslo, but when you have got less with 30 students and just one ICT room with 15 computers?

[Xenaslo] We have computer teachers who also have ICT as an extra-curricular subject for the pupils.

[Xenaslo] Ana, that's exactly my situation. I usually take half the class into the computer room the other half does something else. I usually have our librarian who helps me when I am working only with one half of the class.

[Ana] We cannot do this, Xenaslo. Overall when we are talking about small schools with 30 teachers.

6. Administrative computer tasks

[EUN-Sophie] Who is taking care the computers in your schools, teachers or ICT coordinators?

[Leif] ICT coordinator we are so happy with the one right now-a gentle wizard!

[Ana] In my school, teachers take care about them. Well, just those who know about how to repair a computer because in Spain we have no ICT coordinators.

[Bjohnny] ICT coordinator and in some cases ICT teachers.

[Timisoara] In our school only the teachers take care of the computers. For major problems, there is an agreement between the school and a company.

[Maidu] There must be a person in school who is responsible for whole system- teachers can only use computers in the system according to the rules or possibilities.

[Hennie] In our schools there are special ICT technical supporting teachers. Some schools have a pedagogical coordinator as well.

[Leif] If you have 50 teachers, it would be an idea to replace some of them by using the ICT genius.

[Xenaslo] Leif, the best way to learn is from each other. You don't need a "genius".

[Leif] We have 200 computers set up in a fairly complicated network-nothing for novices. As a school you have a certain amount of money- I suggest it for some schools is wise to spend something on ICT coordinator.

[EUN-Petru] In your view, which should be the main pillars of the ICT Pedagogy? Try to identify some of them from your own experience.

[EUN-Petru] It is said that a teacher who can be replaced by a computer deserves it! Do you agree or not?

[Ana] Absolutely no!

[Timisoara] Certainly not!

[Xenaslo] The computer can never replace the teacher.

[Raluca] No, because the computer cannot replace the human feelings.

[Hennie] No, this is not the right way to trust computers to explain pupils.

[Xenaslo] The computer needs to be implemented into teaching with the full awareness of its limitations.

7. Stimulating teachers to use computers

[EUN-Petru] Does the curriculum in your country stimulate teachers of various subjects to use a computer?

[Hennie] I think too many men have shown the technical side of ICT. I think we need to convince our fellow teachers to see the possibilities in our daily work.

[Xenaslo] Well, dear friends I'll have to leave this great discussion. I have to make lunch. They haven't invented a computer for that yet. Enjoy the rest of the debate. Love to you all.

[Raluca] I think that you can use a computer in a lot of subjects.

[Bjohnny] I think I tend to agree with this. I mean computers without the teacher's support, well-planned lesson structure could be a waste of time. The teacher should know why he/she uses, and what the expected educational gain is.

[Maidu] Yes our curriculum stimulates, but there is not enough special software in our own language. It will be normal that with every textbook, the teacher can also use CDs and other materials for computer.

[EUN-Petru] Maidu, probably this is a common situation for many other countries and languages.

[Leif] As a head-teacher I sleep well at night knowing that some of the teachers don't use ICT. But they will have a problem as we try to channel more and more of relevant school info through the intranet at school.

[EUN-Sophie] But don't you have the feeling that we are just in a transitional process: as years go by, we'll have less and less teachers unwilling to use ICT.

[Bjohnny] I wouldn't say that this is the case in Hungary, Sophie. Slowly the authorities realise that a proper ICT policy is needed and some kind of incentives so as to get more and more teachers to make use of ICT.

8. A Swedish experience

[EUN-Petru] Hennie, we know that Sweden is one of the European countries that invests a lot in education and ICT. Tell us more, please: is there a national strategy to support and encourage teachers?

[Hennie] Yes, two years ago the government has started a project for teachers to help them teaching by using computers. The participants had to present an idea to work with. Pupils are involved in various activities of "problem-solving". About 60% of all teachers work three years in the frame of this project. Every participant has got his/her own computer to be used at home.

[EUN-Petru] Hennie, this is a very smart approach to involve directly pupils in problem-solving activities. This might remind us about Jean Piaget basic concepts. Moreover, offering a computer to every participant really stimulates teachers, I am sure.

[Hennie] Even though Sweden is far ahead, I can see among my colleagues that the use of ICT still depends on teacher interest. That is not really right for the pupils I think. That's why I think we have to use some indirect pressure.

[Ana] Sorry, I left the computer because I had to go out from my office to solve a problem at school, a problem that no computer could solve!

[Maidu] In Estonia we run a special programme for teachers "Teach to the Future". It is aimed at helping teachers to use a computer day to day.

[Leif] Hennie, have you the sense that this is bringing the teachers really into the use of computers? I supervised about 100 teachers on a net-based programme last year - and the engagement was not impressing. Some take this in the hope of getting a greater salary, which in itself is understandable.

[Hennie] Leif, unfortunately the project I referred to previously had not that expected impact. But of course, some of the participating teachers have found a way to use ICT more.

[EUN-Petru] Hennie and Leif, this is right. In 1999, I gave some courses on integrating technologies into the curriculum and I noticed that many teachers were only interested to get a certificate and then to apply to get a better salary. But there were a few really interested in improving teaching and learning conditions via a computer.

9. Fears, limitations and more

[EUN-Sophie] Is there an age limitation to learn with ICT? I think you can start as soon as you're able to click on a mouse? As you say, a computer offers so many functions.

[Leif] Sophie, no age limitation! But all children and the adults who haven't started yet will probably face multiple problems and psychological barriers, being behind the groups of computer users worldwide.

[Hennie] Sophie, I think it's not so much the subject at my school. We are teaching at a primary school. Pupils are aged from 6 to 11. I think the pupils' age is one reason for not using ICT so much, in excess, even though there are so many things to do.

[EUN-Sophie] Once I translated an article mentioning a study carried out in UK. The results showed that secondary pupils who couldn't use a computer or the Internet that well were really lacking confidence in themselves. This article is available in five languages here:

<http://myeurope.eun.org/goto.cfm?did=28702>

[Leif] Interesting study! I can understand their feeling: if you don't have a computer it shows that your parents are out of work or something similar.

[EUN-Sophie] Yes, but it went beyond that. They really underestimated their capacities and had quite some complex towards their fellow pupils who could use ICT...

[Leif] Here in Norway, we have lengthened the school library opening hours to make computers available to the few without computers at home.

[EUN-Petru] Thank you for sharing your experiences and achievements with us.

The content of this chat is available on-line at: <http://myeurope.eun.org/goto.cfm?did=30566>