

## USING INFORMATION AND COMMUNICATION TECHNOLOGIES IN SCHOOL IMPROVEMENT

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### ABSTRACT

Advances in information and communication technologies, shortly called as ICT, require educators to present a more efficient and modern education by using these technologies. Therefore; the role of ICT in the development of education has been a popular research subject nowadays. Even not only education content but it has started to be dwelt on how to develop education documents, education management, school libraries and an entire education institute via ICT as well. In this study, using facilities of ICT in the improvement of a school has been examined. In addition, the materials and equipment necessary for the use of ICT, teaching staff that are capable of using these technologies and difficulties that are met during practices have been discussed. It has been tried to determine what it takes to deal with these hardships. Within the scope of the research, it has been dwelt on how some European countries tackle and practice this subject through data and samples collected in the common-subject study visit to the Estonia, Kohtla-Jarve, in 13-17 October 2008.

**Keywords:** School improvement, Information and communication technologies, Education technologies.

### INTRODUCTION

Using information and communication technologies in education has been continuing about a century. The investments of information and communication technologies which started with radio transmissions in 1920s have developed via television transmissions and investments after 1976s. The planning towards using technology in education in Turkey started with 3<sup>rd</sup> five year development plan which suggested using radio and television for adult education in 1970s. However; the use of computer and internet, which are products of advanced technology, has become widespread after 1995 (Aziz, 1982).

The ministry of education defined the skills that teachers should have in the area of ICT in the general competencies of teaching in 2006. According to this; teachers must have the competencies of being able to know legal and ethical responsibilities of ICT and teach these to learners, be technology literate, follow the advances in ICT, make use of ICT to support vocational development and increase effectiveness, benefit from ICT to share information (e-magazine, practice software, e-mail), prepare suitable learning environments to learners who have different experiences, features, and skills via ICT, give place to how to use ICT in lesson plan, utilize computer and other technological devices to prepare materials, have an access to sources about teaching and learning in technological environments, assess them in terms of accuracy and suitability, be model in effective use of technological sources, and teach them, use technologies that support learner-centered strategies while taking into consideration different needs of learners, develop and apply strategies for behavior management in densely technological learning environments, analyze data via ICT, inform parents, school management, and other educators about results through ICT (Cüre & Özden, 2008).

The importance of using ICT in school development can easily be understood from the scope of this notice. In addition to the ICT competencies of the teachers mentioned above, many other parameters play an important role in school improvement. It may be said that the process of school improvement is on the right track when these parameters are provided adequately and on time.

### 1. PARAMETERS IN SCHOOL IMPROVEMENT

Improvement process of school where our knowledge and skills are started in a planned and controlled way begins with erecting buildings, and providing teaching staff and basic school materials and equipment, and continues. We say it continues since improvement of a school never ends. It should not finish. It is wrong to think the maintenance of improvement in a school just improving its physical, managerial and hardware facilities. If school increases the quality of the education and the success of its learners via these facilities and reaches its aim in education through training individuals who are required by the age to be qualified, it means that the school maintains its improvement.

There are some parameters that play an important role in reaching the mentioned targets for an effective school improvement. These parameters can be summarized as follows:

*Building:* A school contains many components such as; class, laboratory, gym, or, playing ground, library, dining hall, canteen, dormitory, and garden. As well as the sufficiency of the numbers of the components, their place in the building, colors, lighting and heating systems are also important. The improvements that will be made in all the features that have been mentioned will play a crucial role in school improvement.

*Physical Equipment:* Providing, reconstructing, and renewing physical equipment needs such as desk, table, and board in the course of time in accordance with the type of school, and the goals and objectives of education will contribute to school improvement.

*Technical Equipment:* School should have technical materials and equipment (ruler, map, laboratory equipment, computer, internet, data projector, writer, scanner, etc.) compatible with the type of school. Updating and increasing their numbers will contribute to school improvement.

*Management and Service Staff:* School must have knowledgeable, skillful, and open-minded managers in order to conduct managerial works appropriately. In addition, adequate and qualified service staff is needed in order to create and maintain a suitable learning environment. For example; in all the schools which were visited in Estonia in 2008 it was seen that there were a great number of service and supporting staff. Even in a school where the number of the teachers is 29 it was seen that there were 25 service and supporting staff (cleaning, cloakroom, dining hall, ICT, etc.) (Kılıç, 2008).

*Teaching Staff:* Having sufficient teaching staff in each subject and keeping them updated through seminars and in-service training will play a crucial role in school improvement.

*Information and Communication Technologies (ICT):* In our changing and developing world it is very important to use information and communication technologies in education, as with all other areas. ICT are one of the most indispensable parameters in school and increasing the quality of education since they are sources in every aspect of life.

All of these parameters which are necessary for school improvements are very important and each of them is a research subject. In this study, ICT's role on school improvement has been stressed. In developing and globalized world, education models and pedagogical approaches change, as well. Dependably, technologies that are used in education change, too. Using ICT in education has become widespread rapidly and even it has become indispensable. Many people believe that computers make the works easier, more effective and more fun (Seferoğlu, 2002). Taken into consideration these features it might be said that using ICT is a main component in school improvement. Therefore; this point has especially been emphasized in this study.

## 2. USING THE FACILITIES OF ICT IN SCHOOL IMPROVEMENT

As stated in the previous section, one of the most important parameters in the improvement of a school is using Information and Communication Technologies (ICT). Using ICT should be understood as not only technological development but the development in pedagogical method and the level of education, as well. When ICT is said, not only tools such as telephone, fax, computer, data projector, and smart board come to mind but software such as word processor program (MS Word), calculation and table program (MS Excel), presentation preparing program (MS PowerPoint), website designing programs, and concepts of network such as network, internet, width of band, and sharing information come to mind, too.

ICT has become an indispensable part of our everyday life, which has made both education of ICT inevitable and most effective factor in school improvement. In an environment where almost all houses have computers and internet connection and individuals use the facilities of ICT entirely, using these facilities at school and in education is an expected and necessary process. Using these facilities has led to modernization in schools, development in education, and a change in the profiles of teachers and learners.

Using ICT has brought about some difficulties and costs like every innovation and technology. However; the yields of these hardships and costs are fairly high and effective. As Peter Rudd stated in the conference titled Educational Conference and Education Research in 2000, the role of ICT in its effect on school development and learner performance had been disregarded. In fact, there is a direct relationship between the motivation of learner and his learning.

Researches about school improvement have dwelt on the positive effects of ICT on the effectiveness of teaching and the development of learning. Especially these two questions have been focused (Higgins, 2003):

- What is the evidence that ICT can have a positive impact on pupils' learning in school?
- How can ICT be used effectively in schools to improve pupils' learning?

A great many studies have been undertaken to find answers to these questions. As a result, it was seen that when ICT was integrated in a planned, effective, and structural way it might contribute to the learning and teaching to a great degree. These answers also put forward how effective ICT is in school improvement which is our subject.

### 2.1. A general view to the ICT used in education

Blackboard that has been used in the schools for years has been replaced by smart board, books and notebooks have been replaced by flash discs, overhead projectors have been replaced by data projectors, and text-based assignments have been replaced by presentations and slide shows. When ICT is said, it is very natural that computer is the first thing that comes to mind. Other concepts have existed and developed depending on computer. Rapidly developing technology and technological services and products which are becoming cheaper day by day have showed their effects on school improvement. There is nearly no school which does not have computer and internet connection. In this section, technologies that are used in the schools will be discussed, and the most important ones among these will be mentioned shortly.

*Computer:* It is the origin and the main component of ICT. Other technologies have taken shape as hardware and software in accordance with the development of computer. Almost all schools have computer laboratories right now. These laboratories are used for both ICT courses and other courses. In addition, teachers' rooms in schools have computers so that teachers can make preparations for their lessons.

*Software:* They cost as much as hardware and even cost more than them nowadays. For this reason; many countries have signed agreements with big software companies (Microsoft, Macromedia, etc.). They have aimed at decreasing the cost of licensed software used in schools. Along with licensed software, open source software such as moodle, viko iva, and hot potato are used in schools, as well (Estonia Study Visit Group Report, 2008).

*Data Projector:* They replace overhead projectors which were used in the past. Data projector is indispensable in computer-based methods or methods where education documents prepared with computers are used as supporting documents. Therefore; it is very important that not only laboratories but also all classes have data projectors so that the quality of education and learner's motivation can increase.

*Internet and Web-based Tools:* Network technologies have developed rapidly in the last years and depending on this, connection speed and bandwidth have also increased. However, costs have decreased even if not wanted degree (Augar and et al, 2006). This has resulted in using internet in education. The presentations of text-based contents have been replaced by audio-visual contents and animations. In addition, instead of text-based assignments, concepts such as on-line assignments, and project works have become common. Forms of learning and teaching such as distance learning, in-service training, and mobile learning have become rivals with face-to-face education due to the developments in internet and web tools.

### 2.2. Providing adaptation of learner and teacher in using ICT

Using ICT brings a number of adaptation problems as with other innovations. In the origin of all discussions in recent years such as teacher-learner centered education, class- based, computer-based education, face-to-face, and distance education lies ICT. Therefore; when usage of ICT is mentioned, concepts of education system, form of education, and pedagogical method are also mentioned. Under this heading, the issue of adaptation during using ICT in school improvement will be discussed.

Using ICT might be very beneficial to both learner-centered and teacher-centered education. Many learners can adapt to new technology and using ICT in school more rapidly today on account of their environment. However it is not the same case for teachers. They find it hard to adapt this new system because they have a social background distant from ICT and they have taught for years with traditional methods and deprived of technology. Yet, ICT might be shown as a support to the traditional academic methods, especially problem-based view. For example; for a teacher who has a homepage, the tools that are on his web page are excellent tools for maintaining lesson-based teaching tradition (Notland, Johannesen & Vavik, 2001).

The study titled as Situation of Teachers in the Integration to the Process of Learning and Teaching, conducted by Ass. Prof. Yasemin Koçak Usluel and her colleagues in 2005, 114 teachers who work in schools where ICT are used form the research group. As a result of the research two tables below were obtained.

Table 1: The percentages about the levels and frequencies of teachers' use of applications of ICT

	Level of use						Frequency of use					
	Never		Intermediate		Advanced		Never		Sometimes		Often	
	f	%	f	%	f	%	f	%	f	%	f	%
Word Processors	6	5,3	53	46,5	55	48,2	7	6,1	42	36,8	65	57,0
Calculation Tables	40	35,1	56	49,1	18	15,8	45	39,5	50	43,9	19	16,7
Databases	82	71,9	26	22,8	6	5,3	90	78,9	20	17,5	4	3,5
Graphics and Drawing Programs	74	64,9	34	29,8	6	5,3	77	67,5	32	28,1	5	4,4
Desktop Publishing	91	79,8	16	14,0	7	6,14	93	81,6	16	14,0	5	4,4
Presentation Programs	41	36,3	46	40,7	26	23	43	38,1	45	39,8	25	22,1
Education Software CD's	36	31,6	56	49,1	22	19,3	41	36,0	50	43,9	23	20,2
E-mail	41	36,3	34	30,1	38	33,6	40	35,4	30	26,5	43	38,1
www	20	17,5	42	36,8	52	45,6	22	19,3	42	36,8	50	43,9
Internet	53	46,5	37	32,5	24	21,1	59	51,8	36	31,6	19	16,7
Other	0	0,0	1	33,3	2	66,7	0	0,0	0	0,0	4	100,0

Table 2: The percentages about the situations of teachers in integration of ICT into the process of learning and teaching

The Situations of Teachers in Integration of ICT into the Process of Learning and Teaching	Never		Sometimes		Always	
	f	%	f	%	f	%
I use traditional methods since I have no information about the integration of ICT into the teaching process.	33	29,7	46	41,4	32	28,8
I look ever internet sources periodically to use them in teaching.	32	28,1	49	43,0	33	28,9
I participate in some on-line projects with my students.	92	80,7	20	17,5	2	1,8
I design and practice lessons via ICT for teaching activities in the class.	59	52,2	44	38,9	10	8,8
I assess the results of the lessons where I use ICT in teaching activities in the class.	69	62,2	26	23,4	16	14,4
I encourage my students in using ICT in communication, problem solving, and data analyzing.	36	34,0	45	42,5	25	23,6
I know how to integrate ICT into teaching in order to increase the success of learners and I am a role model for my students in this issue.	51	51,0	33	33,0	16	16,0

If we consider that this study was conducted five years ago and there has been a considerable increase in the use of ICT in schools in Turkey since that time, it is possible that there have been many changes in these tables. It is possible to say that the support of Ministry of Education to teachers in using ICT via local and national in-service training courses has changed the table positively. All studies conducted about implementation of ICT in schools converge into the condition of teachers' having necessary knowledge and skills for the effective integration of ICT into the process of learning-teaching (Demiraslan & Usluel, 2005).

Setting out from this approach, first of all teachers should be convinced of value of ICT as an educational learning tool and there should be some professional enterprises in order to increase the interest of teachers in ICT. It is beneficial to raise the consciousness of teachers that their duties will never end but will change form, their duty will be leaders in the system, and there will be no education without teacher no matter what the system is in technology-based education (Varol, 2002).

### 3. INFORMATION OBTAINED IN THE STUDY VISIT

Teacher trainers, education consultants, guidance counselors, school inspectors, and lecturers from faculties of education can participate in study visits activities which are included in the Lifelong Learning Program of the Presidency of European Union Education and Youth Programs Centre. In this section, the information obtained in the study visit hosted by Kothla-Jarve Municipality from Kothla-Jarve city in Estonia in 13-17 October 2008 titled as "Using ICT in School Improvement" will be presented:

- 2 teacher trainers from Turkey
- 1 education consultant from England
- 1 principal, 1 education consultant from Spain

- 1 teacher from Poland
- 1 researcher from Hungary
- 2 lecturers from France
- 1 teacher from Slovakia
- 1 teacher trainer from Germany
- 1 school consultant from Greece

have participated in this visit (totally 12 education specialists).

The study visit included cultural visits, school visits, and the presentations of host Estonia and representatives of other participant countries about their own educational systems and implementation of ICT in education. In all the activities, using ICT has been stressed and successful samples have been presented.

It has been emphasized that there is a high national agenda and a central study so that ICT can acquire a high profile in Estonia. It has been stated that wireless internet connection is highly widespread and provided for free in small towns, airports, public buildings, and even in some rural areas. As it is understood from observations and reports, Estonia has been giving a high priority to education since 1997. Within this scope increased investments have been directed towards establishing ICT and making them common in the name of improving management systems and enriching education-teaching. This national trend has been reflected in policies and implementations in Kothla-Jarve thanks to local government. Both mayor and his assistant display a strong leadership on this issue and education specialists of the host country of this visit develop policies and strategies in order to guarantee that investments of ICT affect the students at schools directly. It was seen that managers, teachers, and supporting staff who work in the schools and institutions that were visited are role models and encourage learners, other staff, and families actively in using ICT as a tool for both increasing the quality of education-teaching and improving the processes of management and communication. This joint approach which was conducted at the levels of national, local and school is assessed as both impressive and an effective model for the successful improvement activities that will take place in the future (2008-218 Group Report).

Schools that are host in this visit have showed their desires in sharing good examples in education including ICT. Staff and even students have displayed a constructive attitude towards finding innovative methods that will improve their learning. It has been stated that the ones who have been in the process and have been successful have been awarded. Even though some restrictions have been experienced, it has been observed that sufficient importance has been given to reading, music, drawing, and other hobbies since it is a balanced approach for educational development. It has been understood from all the observations and statements that ICT are assessed as a “tool of change” in order to realize success. Same statements might also be said easily for other European countries. Estonia is seen as a different country due to its large scale co-operation promise for sharing good examples in education and support for teachers who develop new approaches and curriculums. The schools that we visited utilize e-learning environments that were either established or supported by government or local authorities effectively.

Within the scope of the study visit many good examples have been presented relating to the topic of visit “Using ICT in school improvement” and reconstruction of education. These examples were evaluated in the meetings at the end of every day. Each participant told if there were similar implementations in their countries and if there were any, their similarities and differences were discussed. The most important issue seen during the visits is the success of teachers in preparation for lessons that are presented via smart board or computer. It was seen that they made at least 1 hour preparation for preparing lesson materials. In addition, widespread use of ICT in school-student-parent co-operation, office work, and library were other interesting issues. Correspondences, book registration operations and operations of informing parents are conducted professionally via ICT.

### **3.1. Examples from applications in different countries**

Below, some examples of applications of information and communication technologies during the visit in host and participant countries have been presented as a table.

Table 3: *Good practices of ICT usage in education*

Title of project	Institution where the project is implemented	The ones who benefit from the project	Characteristics of the project
<b>EHIS</b> Education Information System	All educational institutions <a href="http://www.ehis.ee/">http://www.ehis.ee/</a>	Workers in central and local institutions	Information and management systems, document registration and tracking procedures
<b>RIKS</b> School libraries program	Tammiku Gymnasium Jarve Russian High School	Students	School libraries and other libraries within the network with (common database)
<b>Miksike</b> E-learning platform <a href="http://lefo.net/">http://lefo.net/</a>	Jarve Russian High School <a href="http://kjpg.edu.ee">http://kjpg.edu.ee</a>	Students and teachers	Interactive learning platform used 50% of schools in Estonia. It has 120,000 registered users.
<b>E-kool</b> Interactive educational environment <a href="http://www.ekool.ee">http://www.ekool.ee</a>	Jarve Russian High School <a href="http://kjpg.edu.ee">http://kjpg.edu.ee</a>	Information technology training materials developers	Many Estonian schools have been using it. It increased the use of information technology.
<b>Russian (Virtual) Museum</b>	Virtual Musuem (via Google)	Wide audience and students	A virtual presentation of the Russian Museum. 3-dimensional and detailed
<b>Tiger Leap Foundation</b>	Kesklinna Gunnaasium <a href="http://www.kjkg.edu.ee">http://www.kjkg.edu.ee</a>	Teachers and trainer formatters	A national project designed to increase the use of information technology in schools
<b>IT Pirates Among Us?</b> <a href="http://ppaun.blogspot.com/">http://ppaun.blogspot.com/</a>	Jarve Russian High School <a href="http://kjpg.edu.ee">http://kjpg.edu.ee</a>	Students	A research project over the use of pirated software and information technology in schools and by students
<b>Curriculum structure:</b> system consists 7-week periods	Jarve Russian High School <a href="http://kjpg.edu.ee">http://kjpg.edu.ee</a>	Teachers and curriculum preparers	the curriculum is implemented by being divided into from 5 to 7-week periods
An experienced teacher's own web site	Intellekt <a href="http://www.intellekt.ee">www.intellekt.ee</a> <a href="http://znajka.net/">http://znajka.net/</a>	Teachers and students	Educational materials prepared using open-source programs, e-books prepared for parents
School web site	Ahtme Gymnasium <a href="http://www.ahtme.edu.ee/">http://www.ahtme.edu.ee/</a>	Parents, students	Designed to keep interaction with students and parents outside the school
School websites	Sukromna jazykova skola RK Centrum Primary school ZS Spojova 14, Banska Bystrica <a href="http://www.zsspojova.edupage.org">www.zsspojova.edupage.org</a>	Parents, students	Designed to inform parents of the students' development, activities, issues such as food
Primary school website; Radio Station	Carrer Josep Tarradelles sn ES-08232 Viladecavalls <a href="http://www.xtec.cat/ceip-rosella">http://www.xtec.cat/ceip-rosella</a>	Parents, pupils	Information for parents about children's activities, school information, meals, etc menu. Use of ICT including Radio Station and blogs
<b>Sport / ICT</b> Study United - sponsored high tech ICT area.	Study United Scunthorpe FA Club <a href="http://www.studyunited.org.uk">www.studyunited.org.uk</a>	Volunteers	It has been presented for information technology sponsorship and to improve students' motivation in sports school
'Discover' project. Information technology-based curriculum	Foxhills Performing Arts & Technology College <a href="http://www.ftconline.org.uk">www.ftconline.org.uk</a>	Teachers and researchers	Supported by local authority and Manchester Metropolitan University, integration of paper-based curriculum with information technology base.
Ministry e-learning platform	Institute of adult education/Lifelong	Adult educators	Environment offered by the Ministry to educate adults for different issues

<a href="http://www.keenap.gr/">http://www.keenap.gr/</a>	Learning / Greek Ministry of Education		
E-school educational materials and interactive document sharing site	<a href="http://skool.meb.gov.tr/">http://skool.meb.gov.tr/</a>	Students and teachers	An interactive web site prepared by the Ministry that students and teachers can make use of
ILSIS Learning Management System of Turkey	<a href="http://ilsis.meb.gov.tr">http://ilsis.meb.gov.tr</a>	Teachers, schools, the Ministry units	A very comprehensive site regarding the management of the schools and, teachers and entire education system
School web site	Peter Henlein Realschule, Nuremberg <a href="http://www.peter-henlein-realschule.de">www.peter-henlein-realschule.de</a>	Parents, teachers, students	Information for parents about the school. Teachers' access to information and instructional materials' links
State initiations	National Development Agency <a href="http://www.nfu.hu/the_new_hungary_development_plan">http://www.nfu.hu/the_new_hungary_development_plan</a>	All training agencies	Information technology-supported environment Hardware, software training
An international conference in Marseille (3 days in Spring 2009)	The Observatoire des Ressources du Multimedia Education <a href="http://www.orme-multimedia.org/r2008/index.php">http://www.orme-multimedia.org/r2008/index.php</a>	Teachers, researchers and local governments	Education conference on the use of information technology in Marseilles
Pairfom@nce	French Ministry of Education- SDTICE	Teachers	Online courses for teachers to facilitate the use of information technology in their courses
B2i	French Ministry of Education	Students	Use of information technology certificate programs

Similarities between the education systems and applications of host and participant countries and Turkish education system:

- Education information system which is used in Estonia, EHIS, Turkish National Education Ministry system, ILSIS, is quite similar. If you need to make a superficial comparison between ILSIS and EHIS, ILSIS has a more complex structure and has more details.
- Also the ekol.ee which is a student management system includes some similarities with the e-okul.meb.gov.tr.
- In Estonia and other schools, informatics classes, which is supplied with nearly 15 computers, 1 smart board and surrounding devices to be used in informatics technological courses and in leisure time in other courses, have been established.
- In schools, information and communication technologies specialist teachers who have very few courses and help the other branch course teachers in their spare time have been employed...
- Necessity for branch teachers, coming together with the teachers in their own sub branches, to prepare annual activity plan and plan an independent project for each branches.
- Employing a large number of support personnel in educational institutions.
- Academic year consists of 5 periods of 7 weeks in planning.
- Examinations take place within last three days of each semester and the dates of the examinations are certain at the beginning of the courses.
- Thanks to the fact that school web sites are widely published in several languages, more participation and sharing are ensured.
- Money allocated to schools depends on the number of students in the school and when a student move to another school, allocation also goes with the student.
- In Spain, administrators of schools are selected in an election attended by parents and teachers after a nomination period in which nominates campaign the projects they have prepared.

The staffs, who are appointed to management position in Estonia, can start working after completing a 160-day course about management with informatics technology and communication processes, and this is repeated in regular specific time periods (Kılıç, 2008).

#### 4. DISCUSSION AND CONCLUSION

It is inevitable to implement publicities in order to design an education system that enriches the variety of learning opportunities for students and is developed through the use of informatics technologies. It is possible for schools to reach new technologies by purchasing expensive hardware and software. For these, available financial sources and high license prices are common limitations for all countries. In comparison with others, some countries are at a better point in this respect. While all countries have been experiencing a gradual development, some priority order differences can be seen in the supply of the hardware, teacher training, and curriculum content development.

- In European countries, the methods employed to increase school's inventory of computer hardware have common features.
  1. 1 computer and data projector in each classes (for teacher use)
  2. Classes equipped with smart boards
  3. Establishment of, at least, an information technology class (for the use of students in a room separate from the class; 15 computers, which can be allocated for the courses other than informatics technologies courses.)
  4. Also establishment of classrooms with more than one computer to be used in courses other than informatics technologies courses.
  5. Teachers and students are given laptop computers for individual use.
- Although staff training and motivating are the most important investment areas in all countries, integration of information technology as an effective learning tool with the development of teaching methods is a must. In some countries like Estonia, state and local governments conduct regulation and financing of education together. Though this condition is more positive in the other countries, it is witnessed only in local schools. In all countries, teachers are encouraged to improve their informatics technology skills, to be able to use ready programs, to be able to reach open source software, to spend more time in the direction of developing their own materials and web sites. This visit revealed that while communication between the staff helps in the development of trust and support between them, it also encourage individuals to share their good ideas.
- Another important issue is the development of pedagogy .In many examples, it is observed that students use information and communication technologies to gather information and make analyses in individual/group researchers which they conduct in the framework of problem-based learning approaches.
- Learning platforms increasingly make it possible for teacher and students to access and share content and software applications. In countries like Estonia, all schools have orientation toward using this platforms and this orientation encourage cooperation. At the same time, this makes it possible for local and state governments to encourage future cooperation by rewarding contest and projects.
- Innovative methods are employed in curriculum content and software development, and in the spread of staff resources; it is observed that other people are invited make contributions to build their websites and they benefit from open source software.
- Information technology management and its use in communications processes;
  1. Now, many countries tend to have systems that let school information to be used even for very different purposes once they are saved. In this context, the EHIS available in Estonia, because of different levels of details in stored data, has a really impressive way of integrating state, local and school systems.
  2. Reducing paper/ bureaucracy, has made all the schools we have visited compatible with the systems that will minimize the use of papers in correspondences. In addition, in these schools, all the documents of the staff asked to be presented in electronic media in details.
  3. Ability to evaluate success of schools at local level by local and national politicians and determining high quality decisions about teachers' training needs.
  4. Integrated library system of host country, RISK, has connected local, school and the other networks to each other and provides electronic media opportunities of book and literary researches, which can only be seen in higher education institutions in other countries.

Providing effective communication with parents, supplying parents with systems which make it possible to monitor development of their children online, sharing detailed information about activities to be done in the school such as teachers' daily lesson plans and daily food menus. School statistics shows that most of the parents use these systems in order to check status of their children.

As a conclusion, it is observed that the use of ICT not only encourage the students and teachers in terms of education but also they motivate students in a positive direction. In the restoration and development of education, use of ICT which is actively integrated with www (World Wide Web) is a significant catalyst. For the active integration of ICT with education, firstly a good hardware platform must be presented and better training of teachers is required. Finding technical support staff for solving problems which may arise during education is also important. As the use of ICT gets widespread in schools, students will have equal opportunities to access ICT. A situation research, which was conducted in 2001 in the UK, concludes that thanks to use of ICT academic level in the schools has increased. In this respect, although it is more costly and troublesome compared to classical methods, it is suggested that it can or will be preferable due to its positive contribution to education (Kington and et al, 2001).

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