



First Published: 2005
Last Update: 2007
eMapps Reports

SLOVAKIA

1. NATIONAL POLICIES FOR THE USE OF ICT IN EDUCATION

Education is the area of crucial importance in today's fast moving world. To be able to fulfill its highly important role, the education must follow the needs of society. This is the reason why the Government of the Slovak Republic pay long-term attention to reforms in education. The main goal of the reforms is to transform the traditional schools into a modern school system for the 21st century, which works with other components of the lifelong learning system to prepare and continue preparing people for life and work in new conditions. The ongoing transformation of Slovak education system affects all its levels: primary and secondary level realized by regional schools as well as higher education provided by universities and other higher education institutions. The reform of regional schools started by transformation their administration and financing.

The reform of administration has been implemented as a part of the overall decentralization and modernization of public administration focused on the redistribution of powers between the State and the local government. The decentralization is accompanied also by the transformation of the system of the financing of regional schools and school facilities. But essential reform of education is the reform of its contents. The preparation of implementation of this reform is in its final stage. It is based on the National Program of Training and Education in the Slovak Republic - Millenium, approved by the Government in 2001. The flagship of reforms in Slovak education is the reform of higher education. It started with the Government's approval of the overall strategy for further development of higher education in Slovakia in 2000. Based on the strategy, the new Act on Higher Education passed in 2002. The Act, among others, changed the status of higher education institutions from State budgetary organizations to the independent, public, non-profit organizations. The universities have received high autonomy but also high responsibility for their decisions.

The further step of higher education reform is underway: the Government has proposed the considerable strengthening of the system of social support for students and the introduction of tuition fees. The reform process currently underway in higher education is complex. Even though the legislative environment is reacting to the challenges of the third millennium, we will have a great deal of work to do to implement the reforms and change the thinking of stakeholders: public, higher education institutions, their teachers and students so that the process achieves a successful conclusion.

The Ministry of Education of the Slovak Republic: Ministry of Education of the Slovak Republic as a central body of the State administration manages schools and school facilities at the territory of the Slovak Republic through generally binding rules, by providing vocational guidance to all founders; it administers the network of schools and school facilities in the Slovak Republic. Through regional school authorities it provides for realization of the State administration. The competencies of the Ministry are set out by law.

In 2005 public administration decentralisation begins to work fully in the full scope of competences, together with the fiscal decentralisation. Regional local authorities in cooperation with the regional youth councils and several local authorities prepare their own plans for the ICT development of work with children and youth. In this way room for realising the state policy is gradually created at three levels:

- Nation wide, planned and realised by central bodies of the state administration. The coordinator of its realisation is the Ministry of Education SR to whom this obligation ensues from Act No 575/2001 Coll. on the organisation of government activity and on the organisation of central state administration as later amended
- Regional, which are planned and realised by region authorities in close cooperation with regional youth councils
- Local, which are planned and realised by municipalities and towns in close cooperation with youth representatives (local youth parliaments, local youth councils, etc.).

Funding of primary and secondary education In compliance with the concept of the public administration reform that began in the Slovak Republic in 2002, the operations of the regional educational system (primary schools, secondary schools and school facilities) are gradually passing to municipalities and self-governing regions. In the new Act No. 597/2003 of Law Code on the funding of primary schools, secondary schools and school facilities that entered to force on 1 January 2004, the state exactly defines its role in the funding of the school educational system and consistently divides the funding of the transferred execution of state administration (transferred operations) from funding within the execution of self-governing functions (original operations). The state provides for the funding of the educational process, operation and solution of emergency situations in primary and secondary schools in which it provides for the execution of transferred operations. Resources intended to fund the transferred operations are budgeted in the chapter of the Ministry of Education. The new Act on the funding of primary schools, secondary schools and school facilities lays down: Normative type of funding per pupil.

The limit for primary and secondary schools is a sum of the salary limits and operating limits. The salary limit is not uniform for all schools, but depends on the kind and type of school, personnel demand for study or vocational fields, form of study, language of instruction and, in regard to elementary schools, also on their size. Moreover, the operating limit depends on the local temperature conditions of particular schools. The sum of financial resources allocated to the school founders depends on the number of pupils. A founder is therefore motivated to use the allocated financial resources more efficiently and to rationalize the school network in

his operation. Schools are motivated to provide higher quality education, as an increased interest in the school and higher number of pupils will show in the amount of financial resources that the school gains from the state budget.

Multi-source funding

Primary schools, secondary schools and school facilities are subject to multisource funding, however mostly from the state budget and regional self-governments budgets (municipalities and self-governing regions). Contributions from pupils, parents or other child-supporting persons form only a small part of resources. Schools and practical education centers may also perform business activities which, however, cannot be in conflict with the fulfillment of their mission.

Dual-level funding system

Within the first step, the financial resources from the budget chapter of the Ministry of Education are broken down to founders of schools and school facilities. Within the second step, the founders break down the financial resources to schools and school facilities in their operation. This synchronizes the funding of the regional educational system with the running decentralization of public administration. The Act lays down the sum of financial resources that the founder must allocated to schools in his operation (85 % of normative contribution corresponding with labor costs and 80% of normative contribution corresponding with operating costs).

Equality of all founders

Since 2004, state schools (schools in the founding operation of regional self-government and regional school authorities) and non-state schools – church schools and private schools are funded on an equal basis.

The state funds the education of pupils and therefore supplies financial resources for pupils regardless of the fact what type of school they attend. Supplying financial resources to non-state schools on the same principle as state schools means a free choice of educational institution, without discriminating against the parent – tax payer.

Educational vouchers

Educational vouchers are used in the system of funding of interest education provided by schools and school facilities. The educational voucher represents a special annual state contribution to interest education per pupil of elementary and secondary schools.

Funding of school facilities

Effective since 1st January 2005, the municipalities and self-governing regions gain financial resources from individual income tax revenues, intended for the funding of school facilities that they divide to these facilities as needed. By this measure, the public administration reform passed to a further stage, the stage of fiscal decentralization, which aims at the strengthening of the financial autonomy of regional self-government, meaning that the decisions about public expenses are

carried out at the public administration level, which is directly responsible for the provision of the task.

Funding of informal education in the SR:

Until 2002, the informal education funding system was highly centralized. The majority of activities were supported from state budgets. Until 2002, the state acted, through regional or district offices, as a founder of school facilities that carried out in formal education. After 2004, when these facilities were transferred to the direct founding operation of municipalities and after financial decentralization in 2004, they are only funded from regional or local resources.

Regional or local budgets form another source of financial resources for the execution of informal education. These form approximately 45% of all resources. Apart from these financial resources, other state, regional and local resources are available that are intended to support associations and organizations of children and youth, whilst forming an exceptionally strong system in informal education.

Responsibilities for ICT in schools

The Conception of National Policy towards Children and Youth in the Slovak republic until the year 2007 (hereinafter referred to as "the Conception") was approved through Resolution of the Government SR No 1213 of 19 December 2001. On the basis of the binding nature of this document's fulfillment an Action Plan is drawn up each year formulating the current tasks for individual fields, taking account of priorities on the basis of needs according to indicators on the state of children and youth policy in nationwide measure, maintaining the cross-sectional character of state policy reflected in all resorts.

The Conception was processed in a period when the tasks and procedures of public administration decentralisation were not yet clear.

School management or school facility is managed by the head teacher or by the head of school facility who must meet qualification requirements for the respective kind or type of school or school facility they manage. This functional post is filled by the school founder. If the founder of school or school facility is the municipality or self-governing region (authorities of regional self-government) the function of head teacher is filled on the basis of selection procedure which is carried out by the school self-government (school board). Its proposal is binding for the founder of school or school facility. The head teacher of primary and secondary school (including special schools) makes decisions in the first stage of performing the State administration. His competencies are set out by law. Founders of schools and school facilities the founders of schools and school facilities are: municipality (kindergarten, primary school and school facilities), self-governing region (secondary schools and school facilities), regional school authority (special schools and special school facilities and counseling centers), the church or religion society recognized by the State (church schools), other legal entity or natural person (private schools). In the second stage the founders decide in those matters where in the first stage the decisions are made by the headteacher or head of school facility. These competencies are set by law. The municipality makes decisions in the first stage as far as the non-fulfillment of

compulsory school attendance is concerned according to permanent residence of the pupil. In the second stage it is upon the regional school authority.

Territorial self-government the territorial self-government manages the schools and school facilities in the economic field and the municipalities which are school authorities also in the field of vocational guidance in education. The chairman of the self-governing region decides in the second stage in those matters which in the first stage fall upon the head teacher of school and head of school facility to decide. Municipality: Carries out transferred execution of the State administration in the field of primary schools and fulfilment of compulsory school attendance. Within the framework of the transferred execution of the State administration it is a founder of primary schools. Within the framework of execution of self-governing competencies it is the founder of kindergartens, basic schools of art, school clubs for children, leisure-time centers and establishments of school catering. Self-governing region: carries out a transferred execution of the State administration in the field of secondary schools. Within the framework of transferred execution of the State administration it is a founder of secondary schools. Within the framework of execution of self-governing competencies it is a founder of youth homes, basic schools of art and leisure-time centers with regional area of competence, school canteens. State administration In addition to the head teacher, municipality and self-governing region (transferred execution of the State administration) state administration is carried out by

- Regional school authority
- State School Inspection
- Ministry of Education

The regional school authority: The regional school authority is established as a body of local State administration in the field of education. In the Slovak Republic there are eight regional school authorities. The regional school authority is the founder of the system of special education, counselling establishments and, in special cases, if the fulfillment of compulsory schooling is jeopardized; it is a founder of primary or secondary school. The regional school authority is also a founder of the schools which arose on the basis of international agreements. In addition, the regional school authority redistributes the finances of the State budget among individual founders of schools and school facilities and checks up the compliance with generally binding regulations except for the area which falls within the competence of the State School Inspection. The regional school authority is headed by the chief that is nominated by the Government of the Slovak Republic upon the proposal of the Minister of Education.

ICT Policy

The Slovak Republic intensively strives for the utilisation of information and communication technologies ("ICT") at schools to strengthen the utilisation of ICT in the education process and at the same time to provide for ICT serving also the public, which is in accord with the principle of an open school.

At present, at the primary and secondary schools there is one computer for 20 pupils; SR shall try to constantly decrease this number. Through the INFOVEK

(INFOAGE) longtime program (Beginnings of the Infovek Project at the end of 1998 and at the beginning of 1999 are a demonstration of co-operation of both the state and non-state sector. The vision was born in a non-profit NGO – the Association of the Infovek Project. However, the vision would not have been possible to become a reality without the support of the state – the Ministry of Education, parliament as well as the Government of the Slovak Republic. The private sector is becoming more and more involved in the project through the commercial companies, which understand that the need of the educated young generation is necessary for the prosperous society).

The schools were not only equipped with computers and internet access, they were also provided software education packages, which are utilised in the education process. Part of these processes is also large-scope training of teachers of primary and secondary schools in order to provide them with the ability to make use of ICT in the education process. The so-called "ICT classrooms" are being created, utilising the ICT environment in the education process interactively. The process of creation of a higher education information network was concluded. SANET II is now providing high speed connection together with entry to the world information and library databases. The utilisation of e-learning in the framework of projects at the higher education institutions is also supported.

Valuable impulses for the education policy in Slovakia emerged from the work of the internal working groups of Ministry of Education of Slovakia established with the aim to support achieving Barcelona goals. Foreign experience was used in the newly prepared draft act on education and training for career pathways of teachers and trainers. The international experience together with standardized tests used for school leaving exams, complying with the European reference framework of languages, elaborated by the Council of Europe, were used for preparation of the external school leaving examination (External means, that leaving examination comply with well known international standards for education).

Being aware of lagging behind in the development of ICT by the final report eEurope+ and other independent initiatives led to the acceleration of activities in this area. The equipment of schools with ICT labs and internet access was finalized during 2004 and the speed of retraining of teachers of primary and secondary schools in the area of ICT also accelerated. However, the initial preparation of teachers remains to be the weak point in this respect with ICT being underestimated. The strategic document of the Government focused on development of the information society, which is fully compatible with the Lisbon strategy, 25. It could undoubtedly become an important impetus for the development of e-governance and hence, the awareness of importance of ICT for the society and the related need of changes in the education process.

Project eSlovakia:

In January 2002 Slovak Telecom (ST) in co-operation with the government of the Slovak Republic initiated the eSlovakia project the aim of which is to support informatisation and Internet penetration of the society.

iAccess – making access to the Internet and connection easier. In co-operation with

the Infovek and eSlovakia Projects ST connected elementary and secondary schools to the Internet. We want all elementary and secondary schools to have access to the Internet by the end of 2004. Besides, we implement also projects making the Internet access and e-services available to all citizens of Slovakia – Infokiosks.

iEducation – ST support electronic education and help people get or improve their skills in utilisation of the Internet. In 2003 elfa ran a pilot operation of a training programme www.kazdom.veku. Moreover, elfa sponsored training activities of the Infovek project.

iContent – ST supports creation of useful and valuable Internet content which would cover various needs of citizens, additionally enabling access to practical and useful information sources and electronic services.

Project INFOVEK SLOVAKIA:

The aim of the Infovek Project in English InfoAge Project is to prepare the young generation in Slovakia for life in the information society of 21st century in order to prove competent in the knowledge economy, to create the preconditions for our young generation to be competitive on the forming global labour market, especially in comparison with the young people of the same age from the European Union.

The project concept stands on the following four pillars:

- To equip every elementary and secondary schools (state, church or private) in Slovakia with a multimedia classroom with high quality Internet access
- Development of a modern education curricula for general and specialised subjects at all types of schools
- Training of tens of thousands of teachers in integrating modern information and communication technologies and their application into education
- Building information society – providing Infovek classrooms to the local community for the development of the digital literacy of the inhabitants of all regions in Slovakia in the time they are not used by the school for the purpose of life long learning and education.

The Infovek project successfully started the process of information technology development not only in the sector of the elementary and secondary schools in Slovakia, it also plays an important role in the change of the entire society to an information society. The interest of both experts and wide public in the project both at home and abroad speaks loud about the necessity of the project. Slovakia as one of the thirty most developed countries of the world and also as the OECD member must not stay behind in the area of development of modern information and communication technologies and building of information and knowledge economy. Therefore it has to invest in this particular area of education of our young generation.

INFOVEK website: www.infovek.sk

SANET website: www.sanet.sk

eSlovakia website: <http://www.telecom.sk/En/Default.aspx?CatID=31>

Overall Government initiative

The activities mentioned above are part of the government's policy - "Information strategy of society in conditions of Slovakia" and action draft: <http://www.telecom.gov.sk/index/go.php?id=862> (The Ministry of Transports, Posts and Telecommunications) (some of the PDFs are in English). Strategic targets are defined for education in ICT:

- To create strategy for regional schools development
- To achieve full access to the Internet for schools
- To implement ICT into curricula on all school levels
- To build educational portals for all levels of schools
- To realise project „Open school“ – project for building of informational society, focused on cooperation between schools and teachers, local authorities, companies
- To provide ability to gain basic ICT knowledge for every student at the primary schools

In March 2000, at the Lisbon European Council, the Heads of State and Government of the EU-15 made a commitment to make the European Union "the most competitive and dynamic knowledge-based economy in the world by 2010". The Slovak government officially signed up to the process in November 2004, when the Ministry of Finance presented a document called the "Strategy for Development of Slovakia's Competitiveness Until 2010". Slovakia's strategy for the development of a knowledge-based economy is also known as the MINERVA (www.iminerva.sk, Minerva is Slovak official government program for development based on Lisbon strategy. Main goal is to support activities for achieve competitiveness level of former EU member states.).

According to the proposal of the Ministry of Finance, Slovakia's competitiveness strategy is based on these two assumptions:

- Previous macroeconomic reforms have already provided for sustainable economic growth
- Slovakia is, nevertheless, still lagging behind other advanced economies (and even behind some of the new Member States of the EU) especially with regard to the knowledge-based society.

Therefore, the strategy should focus on 4 key areas:

- Information society (improvement of PC skills, e-Government, better internet access)
- Innovation, research and development (better conditions for researchers in Slovakia, support of internationally competitive research and its adequate link to the business sector, public support of business expenditures on R&D)
- Investment into human resources and education (reform of the education system, higher employment and employability, effective dealing with demographic challenges)
- Business environment (better law enforcement, better regulation, cutting of red tape)

“Lisbon strategy action plan for information society” was adopted by Slovak government where are defined tasks and requirements to be implemented in education.

Source:

<http://www.telecom.gov.sk/index/go.php?id=862>

Internet Safety Policy

Responsible for Internet Safety is the “Commission for Information Safety” in the Ministry of Transport, Post and Telecom. The Commission prepares drafts and safety standards. Recommendations given by this commission are obligatory for schools and government organizations. Also every school is responsible for applying restriction policy against illegal or harmful content. Of course it’s best interest of teachers and parents to protect safety of their children.

More information – Safer Internet for Children and Adolescents in NMS:

http://europa.eu.int/comm/public_opinion/archives/cceb/2004/cceb_2004.1_internet.pdf

Broadband projects

The actual situation of broadband Internet access in Slovakia is unsatisfactory in comparison to other EU countries. The penetration level of low-speed Internet access is only one sixth of the average penetration of EU. The number of broadband subscriber lines is only 1.7 for one hundred inhabitants. Newest statistics are mentioned below. New action plan for broadband was adopted by government in 2004. Goal is to achieve level of developed countries in 5 to 8 years.

Following technologies are available in Slovakia for broadband access:

- xDSL (mostly ADSL), allows broadband access through phone line;
- cable modem, with utilisation of existing cable televisions;
- Fixed Wireless Access (FWA), wireless networks;
- Satellite Access;
- Optical networks, high capable and reliable networks;

Strategy expects that most part of modernisation will be given by Internet Service Networks providers. Government will support only metropolitan and local networks with strategic importance. Regions with high unemployment levels, with difficult access and with poor infrastructure will be supported also.

The new OECD statistics on the broadband penetration with some significant changes in the rankings:

http://www.oecd.org/statisticsdata/0,2643,en_2649_34225_1_119656_1_1_1,00.html

or <http://www.oecd.org/sti/telecom>

DSL Cable Other Total* Rank Total Subscribers

Korea	13.9	8.9	2.7	25.5	1	12 260 969
Netherlands	13.6	8.9	0	22.5	2	3 642 315
Denmark	13.2	6.1	2.4	21.8	3	1 176 637
Iceland	21.0	0.3	0.4	21.7	4	63 553
Switzerland	12.7	7.2	0.4	20.3	5	1 515 446
Canada	9.4	9.7	0.1	19.2	6	6 142 662
Finland	16.3	2.2	0.2	18.7	7	978 600
Belgium	11.0	7.3	0	18.2	8	1 899 652
Norway	14.8	2.5	0.9	18.2	9	836 060
Sweden	11.3	2.7	2.5	16.5	10	1 482 843
Japan	11.0	2.4	3.0	16.4	11	20 953 090
United States	5.5	8.0	1.1	14.5	12	42 645 815
United Kingdom	9.7	3.8	0	13.5	13	8 095 000
France	11.9	0.8	0	12.8	14	7 935 900
Austria	7.0	5.4	0.1	12.5	15	1 025 036
Luxembourg	10.4	1.3	0	11.8	16	52 920
Australia	8.5	2.4	0.1	10.9	17	2 183 300
Germany	9.9	0.3	0.1	10.2	18	8 439 732
Italy	9.4	0	0.6	10.0	19	5 783 319
Portugal	5.1	4.7	0	9.9	20	1 031 491
Spain	7.0	2.2	0.1	9.3	21	3 949 234
New Zealand	6.4	0.3	0.3	6.9	22	283 798
Hungary	2.9	1.6	0.1	4.6	23	469 186
Ireland	3.5	0.4	0.5	4.3	24	175 500
Poland	2.5	0.7	0.1	3.3	25	1 250 000
Czech Republic	1.8	1.0	0	2.8	26	284 200
Slovak Republic	1.2	0.3	0.1	1.6	27	86 958
Turkey	1.1	0	0	1.2	28	862 843
Mexico	0.8	0.2	0	1.0	29	1 051 854
Greece	0.8	0	0	0.8	30	93 287
OECD	7.2	3.8	0.8	11.8		136 651 000

Project SANET – Slovak Academic Network. The Ministry of Education contributes to working of SANET by the subsidy for high schools and universities. The SANET network is build in frame of SANET2 project and at this time it covers 23 towns. The network infrastructure is based on leased dark fibers, which are terminated in Cisco Catalyst gigabit Ethernet switches. Building of SANET network went through two

phases. The first one started in July 2001 and was finished in February 2002 when south path (Kosice - Bratislava) was done. In August 2002 we SANET extended topology to Vienna (Austria). Second phase started in March 2002 and was finished in January 2003.

At this time all main nodes of SANET network topology are fully functional. SANET Network is configured as two rings providing full redundancy with maximum delay 5ms.

In the near future SANET are plans to connect other Slovak towns to existing optical infrastructure and upgrade backbone speed to 10Gbps.

Slovak Academic Network – topology, December 2004 (last available map).



SANET - Slovak Academic Network (December 2004)



Initiatives and good practice linking school and homes and school/ external organizations

The Slovak Republic (Ministry of Education) is supporting all activities, which in both the formal as well as non-formal education motivate the children, pupils, students and adults to develop the habit of learning. There are i.e. centres of lifelong learning, operating at higher education institutions, providing tailored module education programs for older employees (foreign languages, ICT, social and psychological

training, etc.). At the same time there are universities of the third age existing, confronted with great interest of elderly citizens.

The work on preparation of a concept of new teaching of foreign languages with utilization of ICT and general education subjects at primary and secondary schools began. For the new concept of the school leaving exam the target requirements were elaborated for all school leaving examination subjects. The content and education standards are being created for both general and vocational education.

2. ICT IN THE CURRICULUM

General National Curriculum

There is no national curriculum framework available as a written document yet.

ICT integrated into the curriculum (primary and secondary education)

In primary education:

Generally education in ICT is not part of compulsory curricula yet. The schools are free to decide on the allocation of hours of teaching. ICT as a part of voluntary free time activities offered as an option, in some cases only recently. It's decision of local school administration.

In secondary education:

ICT is an integral part of the minimum curriculum. Slovakia introduced this subject into the entire curriculum for secondary education in the late 1980s. It becomes a compulsory subject during the first year of upper secondary education and may be included in the curriculum in subsequent years if the school head decides that it should be.

Curriculum reforms

The Minister of Education of Slovakia presented the main priority for the years 2005 and 2006 – it's REFORM OF EDUCATION.

Minister Martin Fronc: "Education is the area of crucial importance in today's fast moving world. To be able to fulfill its highly important role, the education must follow the needs of society. This is the reason why the Government of the Slovak Republic pays long-term attention to reforms in education. The main goal of the reforms is to transform the traditional schools into a modern school system for the 21st century, which works with other components of the lifelong learning system to prepare and continue preparing people for life and work in new conditions. The ongoing transformation of Slovak education system affects all levels: primary and secondary level realized by regional administration authority as well as higher education provided by universities and other higher education institutions. The reform of regional schools started by transformation their administration and financing.

The reform of the administration has been implemented as a part of the overall decentralization and modernization of public administration focused on the

redistribution of powers between the State and the local government. The decentralization is accompanied also by the transformation of the system of the financing of regional authorities and school facilities. But essential reform of education is the reform of its contents. The preparation of implementation of this reform is in its final stage. It is based on the National Program of Training and Education in the Slovak Republic - Millennium, approved by the Government in 2001.

The flagship of reforms in Slovak education is the reform of higher education. It started with the Government's approval of the overall strategy for further development of higher education in Slovakia in 2000. Based on the strategy, the new Act on Higher Education passed in 2002. The Act, among others, changed the status of higher education institutions from State budgetary organizations to the independent, public, non-profit organizations. The universities have received high autonomy but also high responsibility for their decisions. The further step of higher education reform is underway: the Government has proposed the considerable strengthening of the system of social support for students and the introduction of tuition fees. The reform process currently underway in higher education is complex. Even though the legislative environment is reacting to the challenges of the third millennium, there is a great deal of work to do to implement the reforms and change the thinking of stakeholders: public, higher education institutions, their teachers and students so that the process achieves a successful conclusion."

Actually proximately one hundred million euro is available from the European Social Fund for basic and secondary schools for new projects (including reforms of ICT).

3. ICT IN PRACTICE

Games in school education:

Using of computer games is not very common technique of education in Slovakia. There are games which help to improve creativity but mostly without utilization of ICT.

Mobile phones in schools:

Using of mobile phones in school education is very expansive for the majority of students or teachers. There are no guidelines for utilization.

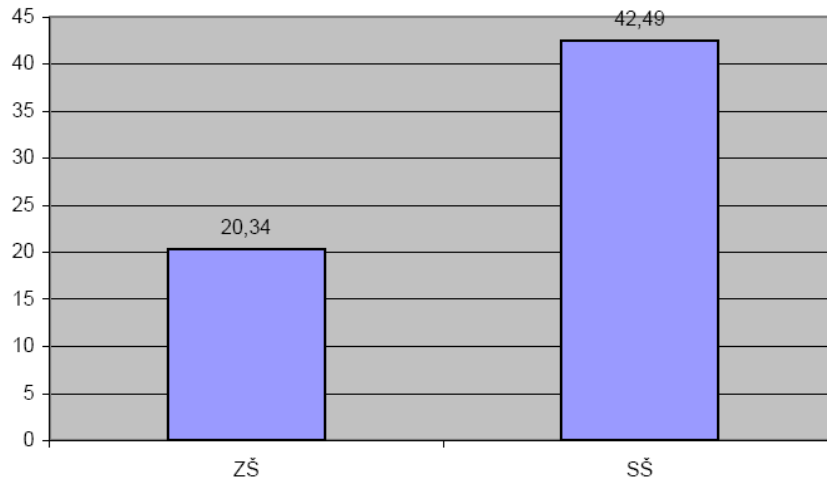
Autonomy of schools to integrate ICT in schools

Schools are free to make their own decisions about the integration of ICT into the teaching process. But unfortunately they are limited by the financial situation –the national schools are classified as "contribution organisations" – it means the amount of money depends on number of students. Other sources of grants are from already mentioned projects Infovek, Open school, EU Social Fund, etc.

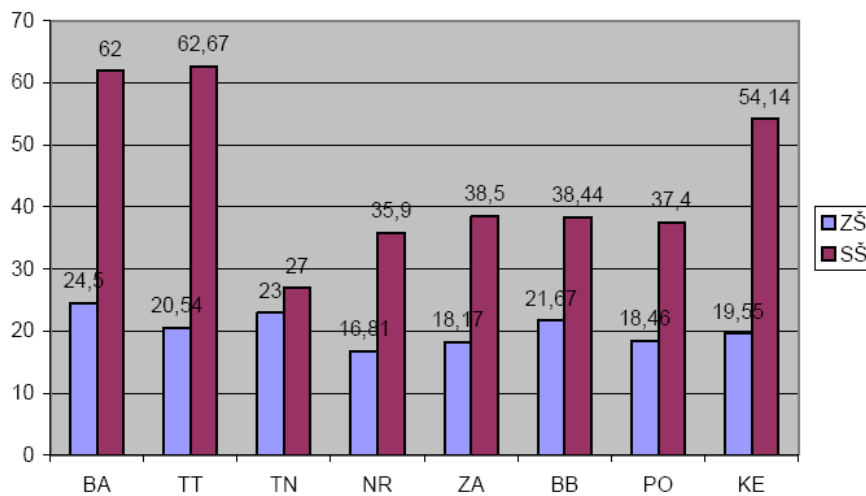
ICT integration in schools (for primary and secondary) education:

Latest available study about using of ICT in Slovakia was made by Microsoft Slovakia. They sent questionnaires to aprox. 10% of total number of schools in

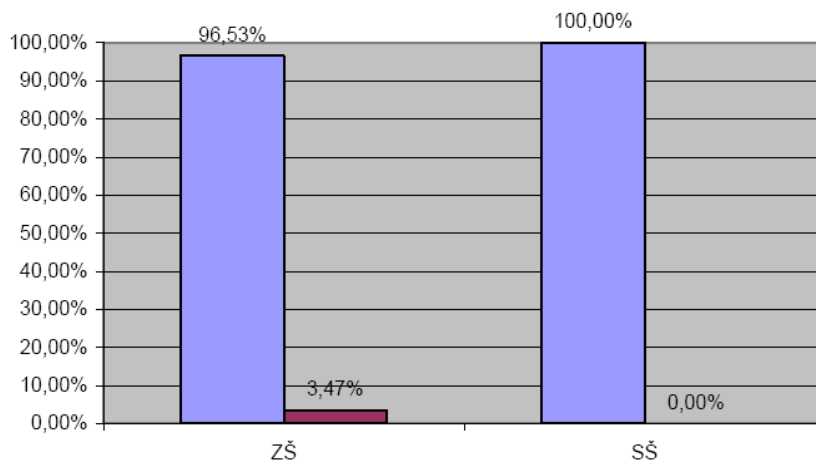
Slovakia (3 180 schools – totally is in Slovakia 2340 primary and 860 secondary schools). They received 63% of sent questionnaires.



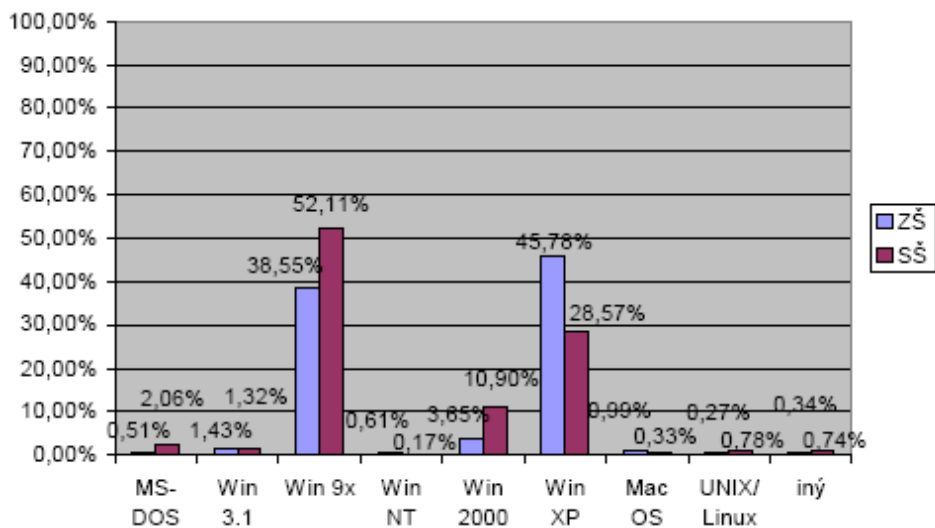
Average number of computer on schools (ZS-primary school, SS – secondary school)



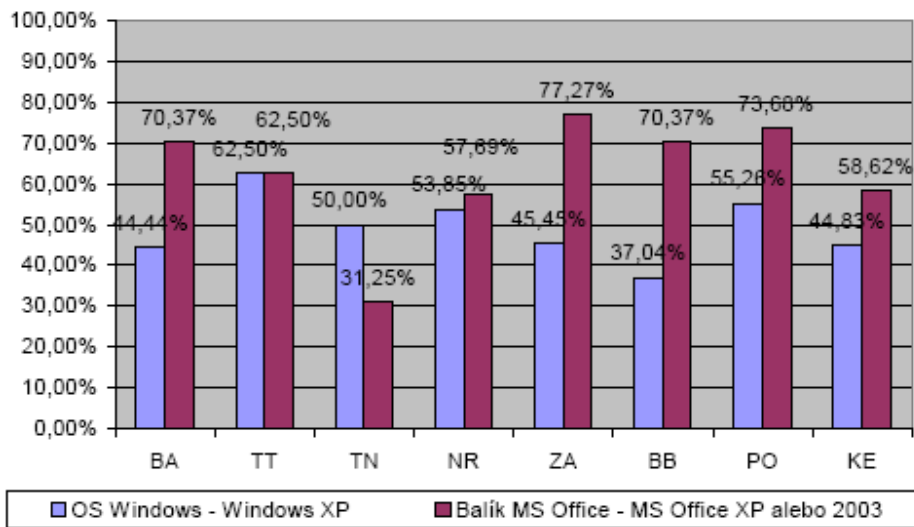
(BA-Bratislava, TT-Trnava, TN-Trencin, NR-Nitra, ZA-Zilina, BB-Banska Bystrica, PO-Presov, KE-Kosice), ZS-primary school, SS- secondary school



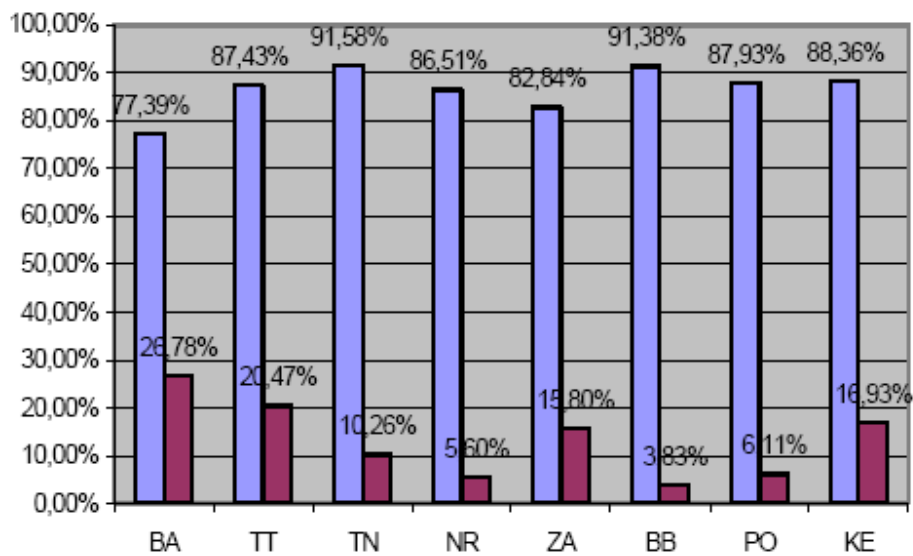
Access to Internet (■ connected, ■ not connected), ZS-primary school, SS-secondary school



Operating system in use

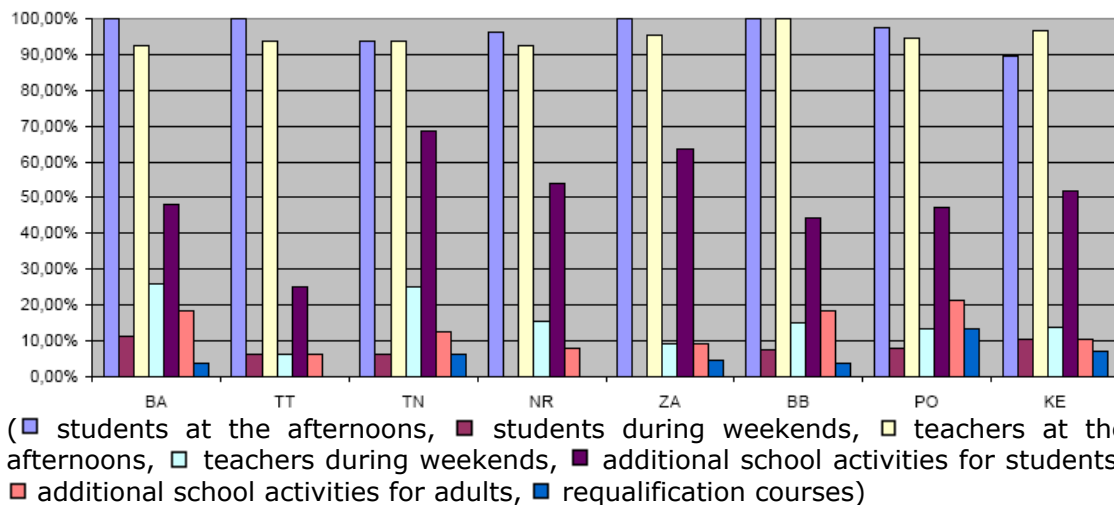


Recent software in use – district view



(■ specialised computer room, ■ integrated in normal class)

Placement of computers in school



Utilisation of ICT in time outside of normal classes

More information (unfortunately only in Slovak language)

http://www.minedu.sk/VS/IT/ITDOC/20051018_Pruzum_vysledky.pdf.pdf

Known uses of games

Schools are provided with bundle of games from project Infovek (InfoAge) – i.e. Petr, How things works, encyclopaedias for children ... There are no statistics available about usage of these games in school. No relevant report was found for this document.

Use of online learning resources, tools and provision of virtual learning environments

Well known portal for schools is www.infovek.sk. In internal area is available to download a lot of technical and educational software.

Learning resource repositories

Source:
www.infovek.sk

Computer distribution (in primary and secondary education)

According to the government policy every school has to be equipped with a computer class and Internet connection. At present, every school has at least six computers connected to Internet. A third of these schools are connected through ADSL. The student/computer ratio in secondary schools is 16 and in primary schools 44. By the end of 2006 every teacher should be trained in PC basics.

Support (technical and pedagogical) in primary/ secondary education

In every primary and secondary school there is a skilled teacher who is responsible for computers as an administrator. Two teachers from every primary and secondary school were trained in computer hardware, software, networks and security. More than 3500 teacher were trained in the year 2005.

More information (available only in Slovak)
<http://pvspu.elfa.sk/>

4. RESEARCH AND ICT

Impact of ICT on learning outcomes

Impact of ICT on Learning outcomes is a main subject of the Ministry of education financed research project named: "Utilisation of ICT and networks platforms of new generation in education". Project is realized by the consortium of the most important educational institutions in Slovakia (years 2003 to 2006). The project is still in progress so all results are not available yet. As main result is expected full SWAT analysis of education in Slovakia. Also requirements for ICT infrastructure will be defined as results of this work (http://www.elfa.sk/gwt_3/index.html).

Impact of ICT on lesson planning and teaching methodologies

See impact on learning outcomes

Latest statistics and case studies are available unfortunately only in Slovak language on website:

<http://www.euractiv.sk/se/42/Vzdelavanie>

5. IMPLEMENTATION DATA OF ICT IN SCHOOLS

Number of	Data	Year and Reference
GENERAL SCHOOLS' DATA Please distinguish between Overall, Primary and Secondary education (O, P, S)		
Schools	O (3 180), P (2340) S (860)	2005, Ministry of Education (www.minedu.sk)
Students	838 840	2005, Statistical data, Ustav informacii a prognos skolstva, Ministry of Education http://www.uips.sk/statis/index.html
Teachers	81 403	2005, statistical data http://www.uips.sk/statis/index.html
INFRASTRUCTURE - If possible, please distinguish between overall, primary, secondary and vocational (O, P, S)		
Number of Schools connected	3 180	2005, Ministry of Education (www.minedu.sk)
Number of Schools with broadband	N/A	N/A
Number of schools with wireless networks	N/A	N/A
Number of schools with satellite	0	
Number of schools offering GPRS connections	0	
Teachers with laptops	N/A	N/A
Students with laptops	N/A	N/A
Students per internet connected computer	N/A	N/A
Students per computer	P - 44 S - 16	25.11.2005 Ministry of Education (www.minedu.sk)
School-home	N/A	N/A

connections		
Age of computers	N/A	N/A
USAGE- If possible, please distinguish between overall, primary, secondary and vocational (O, P, S, V)		
Schools having a website	N/A	N/A
Schools using a Virtual Learning Environment (includes intranets)	N/A	N/A
Schools using videoconferencing	N/A	N/A
Teachers with email	N/A	N/A
Students with email	N/A	N/A

N/A – information are not available