INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR INCLUSION

Poland

1. Policy Frameworks

This information was provided by Elżbieta Neroj (Polish Ministry of National Education, Agency Representative Board member).

1.1 Policies that impact on ICT for inclusion in the compulsory school sector

At national level, the core curricula define the learning outcomes for specific school subjects. In core curricula, ICT is seen primarily as an important competence in itself (digital competence, digital literacy). The aims of specific ICT classes are defined at every level of education:

- *primary school*: computer classes

- 7-year-old students: use the computer in the main areas; run programs using the mouse and keyboard; use the computer in a healthy way, subject to restrictions on computer use;

- 10-year-old students: use the selected programs and educational games to expand their interest; use the options in the programs;

- 13-year-old students: safe use of computers and software; awareness of risks and limitations associated with the use of computers and the internet; communication through a computer and ICT; finding and using information from various sources; the development of computer drawings, themes, texts, animations, presentations and media figures; problem-solving and decision-making with the use of a computer; the use of computers to increase knowledge and skills in various fields and to develop interests;

- *lower secondary school* and *upper secondary school:* informatics

- safe use of computers and software; the use of a computer network to communicate with a computer and ICT; searching for, collecting and processing information from various sources; development in using a computer for drawings, text, figures, themes, animations, multimedia presentations; using algorithmic approaches on the computer for problem-solving and decision-making; the use of computer games and educational programmes to expand their knowledge and skills in various fields and to develop interests; assessment of the risks and limitations, valuing the social aspects of the development and application of informatics.

The role of ICT is also highlighted in the guidelines for the implementation of the core curricula (specific pedagogical approaches and curricula are defined at school level).

There are no separate core curricula for students with disabilities (except students with moderate or severe intellectual impairment). Disabled students with no intellectual impairment (e.g. blind, deaf) and students with mild intellectual impairments follow the same core curriculum as all students, including ICT classes. Methods and forms of work are adapted to them in an individual educational and therapeutic programme. A separate curriculum exists only for pupils with moderate or profound mental impairments; this aims to prepare them for future social roles and, insofar as possible, an independent life.

The students' needs for specialised equipment are assessed at school level, based on the statement on the need for special education, which is necessary to avail of provisions for education for students with disabilities. This statement entitles learners to a tailored curriculum, specialist support throughout education and adapted learning conditions. It also entitles them to special education funding from the state. The document is based on specialist diagnosis, producing a qualitative and quantitative profile of a pupil. It gathers information on intellectual capabilities, learning strategies, perception, social relationships, communication, and individual and educational conditions, including specialised equipment.

ICT's potential to support students with special educational needs (SEN) and promote inclusion is also visible in the vocational education curricula, where one can find explicit references to ways in which ICT can be used for inclusion. For example, as a part of the curriculum for the qualification of *technik tyfloinformatyk* (ICT technician specialising in the field of ICT for sight disabilities), one can find requirements for competence in using software for making audiobooks, Braille devices, magnifiers and magnifying software, amongst other things.

The external examination systems for general exams at primary, lower secondary and upper secondary level and vocational exams at upper secondary level are adapted to individual developmental and educational needs and psychophysical abilities. The adaptation includes special versions of the exams for different categories of students with SEN, use of specialist equipment and didactic resources, extended examination time, presence of a specialist during the test or examination, and the necessity to communicate with a student or handle specialist equipment and didactic resources.

The law requires kindergartens, schools, public offices, integration / inclusion programmes, and special units and centres to ensure that students with disabilities receive appropriate support, due to the individual needs of students with disabilities, learning conditions, specialised equipment and teaching aids.

All educational tasks of territorial self-government are financed by the state subsidy. Each year, a uniform system of funding allocation applies to the entire education system, based on an algorithmic formula and rich data. The assignment of a budget based on the actual number of students is affected by some external conditions (i.e. rural areas, small towns), and educational tasks (i.e. presence of pupils with disabilities, number of integrated classes, vocational training, sport schools).

For many years, the Ministry of National Education (MNE), acting pursuant to the Education System Act, has been subsidising schoolbooks and supplementary books for special education of blind, visually impaired, deaf and intellectually impaired students. Since 2009, a new system aimed at providing schoolbooks for blind and visually impaired students has applied in the MNE. From the funds of the Ministry of National Education, adaptations of schoolbooks and supplementary books are commissioned to meet the needs of blind and visually impaired students.

Electronic versions of Braille schoolbooks and schoolbooks with enlarged fonts are published on the webpage of the Centre for Education Development in a dedicated IT system prepared by the MNE, which enables the head teachers of schools and education centres to download them on an on-going basis, according to students' individual educational needs.

There were many projects using European Union (EU) funds initiated by the government, which aimed to develop school facilities with modern teaching aids, including ICT.

Since 2009, projects selected for co-financing as part of the competition called 'Development and pilot implementation of innovative educational programmes for students with special educational needs with the use of advanced methods of diagnosis and therapy of a disabled student' have been implemented. They are addressed at primary schools, lower and post-secondary schools and education centres providing education for students with SEN (special schools, integrated schools, mainstream schools with integrated or special departments). They are aimed at the development and pilot implementation of innovative educational programmes for students with SEN, with the use of advanced diagnostic and therapeutic methods for disabled students. The scope of the programmes includes, inter alia, education in entrepreneurship, mathematics and natural and technical sciences. Twenty-two agreements have been concluded for the implementation of projects, totalling PLN 33,358,225.30. Nine projects have been accomplished so far. Fifty-eight curricula have been developed, including 12 in the area of entrepreneurship, mathematics, natural sciences and technical subjects. They include, inter alia:

- the computer world of knowledge – an IT educational programme for visually impaired and blind students;

- 'Know your computer' (*Z komputerem za Pan Brat*) – an educational programme based on multimedia technologies, which includes a number of therapeutic programmes for cognitive, perceptual and motor disorders, multi-sensory stimulation therapy exercises, and support for children's comprehensive development, including speech;

- an educational programme called 'Friendly waves' (*Przyjazne fale*) that focuses on visual perception development, with the use of electroencephalographic biofeedback therapy to stimulate mental potential.

The school authorities and school directors also receive additional funds for equipping schools and improving teachers' skills in this area.

The policy focuses on modern equipment, providing access to broadband internet and improving teachers' skills in using ICT tools.

Changes have already been implemented involving the creation of a comprehensive support system for schools through changes in task performance in three types of educational institutions: teacher training centres (*placówki doskonalenia nauczycieli*), guidance and counselling centres (*poradnie psychologiczno-pedagogiczne*) and pedagogical libraries (*biblioteki pedagogiczne*).

There are plans to introduce changes to the entities' operations in order to make it possible for them to organise and conduct support for schools through planned actions performed directly in the school and co-operation and self-learning networks for teachers and headmasters of schools and education centres. As part of this, it will be possible to organise various forms of improvement, including meetings attended by external experts (e.g. lectures, workshops, group consultations), as well as all forms initiated by the organiser and the entity administering the network (e.g. organisation of display classes, discussion of good practices, jointly seeking optimum solutions for on-going didactic and support problems).

The tasks of guidance and counselling centres shall also be specified in the scope of support for schools with regard to correctly organising education for students with disabilities. The tasks above are also important for systemic support. The centres' tasks shall include an obligation to co-operate when it comes to assessing a student's individual developmental and educational needs and subsequently determining the most suitable

conditions necessary for the purposes of learning, in terms of specialist equipment and didactic resources, including those which employ ICT. The regulations shall indicate that such co-operation between a school and a centre can be initiated not only by the headmaster of the school, but also by the parents of students with a disability or by adult students themselves.

A systemic project financed with EU funds is currently being prepared. It is addressed to guidance and counselling centres and its aim is to equip them with modern tools for diagnosis and therapy and help them develop specialist skills, including ICT usage. The project will be implemented within the new EU financial programme 2014-2020.

1.2 Current policy on ICT for inclusion in relation to the main project themes

1.2 (i) ICT as a tool for promoting equity in educational opportunities.

The Polish educational system is highly decentralised and local governments and schools have a great deal of autonomy in curricular decisions. School principals follow broad guidelines at national level, which they may implement in different ways by adapting them to local circumstances. Schools are obliged to adapt the curriculum for each student with disabilities and develop an individual education and therapy programme.

There is no law that obliges school principals to use ICT as a tool for promoting equity in educational opportunities, but school principals are free to set up such a policy for their school if they consider it appropriate.

1.2 (ii) Access to appropriate ICTs as an entitlement

Schools must provide specialist equipment that is suitable for the students' needs.

Students with SEN are entitled to avail of special forms of the general and vocational exams for both compulsory and optional exams.

1.2 (iii) Training of educational staff in the use of general and specialist ICTs

ICT use is part of teacher education standards, pursuant to the Minister of Science and Higher Education regulation on the standards of education in preparation for the teaching profession, dated 17 January 2012. Among many other skills, the curriculum for teachers also contains the basics of typhlopedagogy (special pedagogy for students with sight disabilities) and special pedagogy for students with hearing disabilities. Both competences include direct references to the use of computers (and other ICT) for the education of students with SEN.

Training in this area is also available from central (Centre for Education Development: http://www.ore.edu.pl/), provincial and district teacher training centres. Local guidance and counselling centres also provide support in this field.

1.2 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

No information is available on this issue.

1.2 (v) Data collection and monitoring in the use of ICT in inclusion

The System of Educational Information collects data on ICT infrastructure. However, there is no regular activity in the monitoring of access to ICT at student level and the use of ICT for inclusion in schools. Broad information on variations in access to and use of ICT is collected in different international and national projects, but there is no special focus on students with SEN. Although a number of studies on people with disabilities (including young people) are available, they do not focus on the use of ICT in education.

The Polish Educational Research Institute (http://www.ibe.edu.pl/en/) is currently running the International Association for the Evaluation of Educational Achievement's International Computer and Information Literacy Study (IEA ICILS), which will provide answers for many questions on digital competences and the use of ICT in schools, including their inter-school and intra-school variation. However, the study design is not targeted at students with SEN.

1.3 Strategic plans for implementing policy on ICT for inclusion

'Digital School', the pilot programme initiated by the government, started in 2012. Its objective is to enhance the use of ICT in primary schools. One of its goals is to decrease the gaps in access to ICT in schools. The pilot programme covers about 400 schools. A national programme is planned for after the pilot.

The programme is scheduled to run from 4 April 2012 to 31 August 2013.

Programme goals:

- develop ICT competences of students and teachers within the field of ICT in the educational process;

- support the shift of teaching model towards one developing creativity, collaboration skills and critical thinking, including searches for and evaluation and creative use of available sources of knowledge;

- development of teachers' and headmasters' competences in the field of ICT in the teaching process and the organisation of school work;

- development of students' competences in ICT in the learning process;

- implementation of ICT in the teaching process for individual subjects;

- establishment of model examples of ICT in the teaching process of individual subjects, as well as dissemination of good practices in that regard;

- removal of existing obstacles which hinder access to electronic educational resources;

- development of the implementation model for the multi-annual governmental programme.

Main assumptions in the area of digital educational resources:

The Minister of National Education shall ensure access to the resources free of charge, in the form developed within the systemic project implemented under the Operational Programme Human Capital 2007–2013.

Resources shall be available in at least one open format, the full specification of which is available for use without any substantial legal or technical restrictions. In cases where access to the resources in question is to be effected by means of the http: or https: internet protocols, the W3C organisation's up-to-date Web Content Accessibility Guidelines shall be taken into account when determining the rules governing accessibility to the aforementioned resources.

Expected project results:

- extending the range of electronic educational resources (the current commercial offer is still limited);

- promoting the use of ICT in education;

- allowing teachers to create flexible educational content;

- giving students access to attractive and structured educational content;
- improving access to textbooks for visually impaired students and students from national/ethnic minorities.

The conclusions on the implementation of the pilot programme will serve as the basis for the decision on the multi-annual governmental programme for developing students' and teachers' competences in the use of ICT in education. The implementation of the multi-annual programme will be launched in the 2014–2015 school year.

1.4 Monitoring and evaluation of policies or strategic plans relating to ICT for inclusion

A number of research projects and evaluation studies are run by the Warsaw-based Educational Research Institute. While the use of ICT for inclusion is not the main focus of the studies, information on access to ICT or use of ICT by students and teachers is taken into account.

1.5 Main policy developments in ICT for Inclusion that have taken place since 2000

No information is available on this issue.

1.6 Current issues in relation to ICT for Inclusion

Currently, the key challenge is to stimulate the needs of excluded groups, raise their motivation levels and develop their digital competences, as well as to develop the educational service offerings and contents.

1.7 Important short and long-term developments in ICT for Inclusion

No information is available on this issue.

2. Country Practice

This information was provided by Elżbieta Neroj (Agency Representative Board member) on the basis of information gathered from 2+ schools in 8 districts (information was gathered from the schools' directors via education superintendents).

2.1 Main developments in practice in ICT for Inclusion since 2000 in relation to the main project themes

2.1 (i) ICT as a tool for promoting equity in educational opportunities

There is a new core curriculum. Many EU-funded projects have helped to increase ICT equipment in schools.

2.1 (ii) Access to appropriate ICTs as an entitlement

Every school has a computer room. In many schools there are interactive whiteboards and educational programmes.

The most common forms of ICT use in classes with students in integration and mainstream classes and during therapy activities are:

- use of interactive exercises, games, tests;
- use of available multimedia presentations and preparation of materials for teachers and students;
- use of networking tools (such as e-platforms for communication, e-learning with the teacher and solving additional tasks);

- supplementing the lessons with excerpts from documentaries and similar;

- virtual museum tours;

- access to online resources, cultural texts, shows, plays, interviews, iconic texts, works of art;

- correspondence with students via email (e.g. to send homework);

- using text editors to correct essays;

- work on concentration, memory and attention span using biofeedback therapy;

- students with disabilities making moderate therapeutic and educational use of various forms of ICT in the classroom;

- an interactive whiteboard that allows students to consolidate the acquired knowledge and skills in order to function in the environment: technology, art and design through interactive exercises; virtual museum tours; visualisation;

- as part of the subject 'in the functioning of the environment', students learn basic computer skills, such as using the internet (searching for information, sending, receiving and retrieving messages and emails); becoming familiar with Microsoft Office software (word processor, spreadsheet); running and using educational software; graphics; saving files and performing basic operations on the disk; and creating simple multimedia presentations;

- a platform for e-learning in which students have the opportunity to deepen their knowledge by improving basic computer skills to solve tasks prepared for tutorials and courses;

- computers being used for parties, music therapy and general development puzzles and games;

- an electronic journal, which makes it easier to communicate with the parents of students, including students with disabilities.

2.1 (iii) Training of educational staff in the use of general and specialist ICT

Training in the area of using ICT is available from central (Centre for Education Development), provincial and district teacher training centres. Local guidance and counselling centres also provide support in this field.

ICT skills training is often part of an EU project carried out by a school.

2.1 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

No information is available on this issue.

2.1 (v) Data collection and monitoring in the use of ICT for inclusion

The System of Educational Information collects data on ICT infrastructure. There is no regular activity in the monitoring of access to ICT at student level and the use of ICT for inclusion in schools.

2.2 ICT to promote learning in inclusive settings

2.2 (i) Country-based networks to support teachers in using ICT to promote inclusive learning

The system is currently being developed: the complex local support system for schools is being created and networks will be created in this system.

The 'Digital School' pilot programme has been launched.

2.2 (ii) Initial teacher education in using ICT to promote inclusive learning

No information is available on this issue.

2.2 (iii) Practical support in classrooms to help teachers' use of ICT to promote inclusive learning

Teachers can develop their ICT competences through courses, including e-learning. There are no systemic means of support during lessons.

2.2 (iv) Important information sources about new developments, hardware and software products and ideas for using ICT to promote learning in inclusive settings

- Website of the Ministry of National Education: www.men.gov.pl
- Website of the 'Digital School' project: www.cyfrowaszkola.men.gov.pl
- NGOs and company websites.

2.3 Current obstacles to using ICT to promote learning in inclusive settings

The main challenge and, at the same time, an obstacle to the use of modern technology is that there is still scant school equipment and also very rapid technological progress. Although schools have increasingly complex modern media, the number is still insufficient to meet needs. Directors are trying to raise funds from various sources for retrofitting schools. This is often difficult and requires considerable managerial skills from the director. Schools also try to take part in various projects, including EU-funded ones, that offer the opportunity to acquire the necessary equipment. However, costs – and thus the amount of equipment and its quality – are certainly one of the biggest problems encountered by schools. Currently, teachers are willing to use ICT in the classroom and are in most cases prepared to operate it.

The main obstacles are:

- the cost of staff training and equipment maintenance;
- the need to replace equipment due to technological development;
- staff's fear of using innovative ICT.

2.4 Factors that support using ICT to promote learning in inclusive settings

These include:

- local government policy in ICT, which provides funds for school equipment and teacher training;
- school directors as leaders in ICT promotion;
- teachers' competences.

2.5 Perceived short and long-term developments that will have an impact on ICT for Inclusion practice

These include:

- specialist competences;
- guidance and counselling centres which will support teachers in using ICT in inclusive education effectively;

- a national database of accessible multimedia textbooks and good practice examples.