Belgium- Flanders

Country Report on ICT in Education

Available on http://www.eun.org

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2017

TABLE OF CONTENT

1. THE EDUCATION CONTEXT

1.1. Key educational challenges and priorities

The policy Note on Education 2014-2019 mentions the following 5 priorities

1. To support all children to develop themselves with respect to their individual talents. Key actions within this priority are measures to lift participation to preprimary education, modernization of the structure and the curriculum in secondary education, more emphasis on art and cultural education, an action plan on STEM, the full shift to inclusive education and measures to stimulate literacy (including media and digital literacy).
2. To attract enough motivated and qualified teachers. Key actions here are the actualization of the basic teacher competence profiles and strengthening CPD and support structures.
3. To support and strengthen the educational institutions. Key actions are "operation Tara" to reduce regulations and administrative burdens of schools and changes in funding structures and registration policies.
4. To realize a masterplan for school buildings, capacity and infrastructure (incl. ICT infrastructure).
5. To provide top quality in education and training.

Current ICT priorities are:

- The support of schools on media literacy topics such as image literacy, prevention of sexting and cyberbullying, countering online hate speech and online radicalism
- The implementation of the General Data Protection Regulation in schools
- Accessibility and ICT-based special needs provisions
- The availability of broadband internet access in schools
- ICT-curriculum reform

1.2. Education Reforms

Please describe key reforms that have taken place in the past year or two (e.g. curriculum reforms, institutional reforms, reforms affecting teachers). Include the reasons for the reform, the timeframe of the reform and the major changes expected. Please include a link where to find further information in your own language, if available.

(1) A key and major reform in Flanders is the full shift towards inclusive education for all children under the so called SEN Act. From 01 September 2015 onwards, each child has the right to enroll in a mainstream school on the condition that reasonable accommodation is provided. That is the result of the 21 March 2014 Act on measures for pupils with special educational needs, better known as the SEN Act. The

use of ICT play an important role in the support of teachers and pupils with special educational needs (see 4.3).

(2) Starting from the schoolyear 2018-2019 a major Reform of Secondary Education will take place. A large set of measures will be taken to strengthen the performance in secondary education. This reform has important consequences for primary education as well and for the transition from primary to secondary education. Important measures are: more and earlier foreign language provision in primary education, language screening, validated end test at the end of primary education, two new curriculum areas in primary education: “Science and Technology” and “Humans and Society”, a better orientation and support in the 1st grade of sec. education, a rationalization of the study offer in the 2nd and 3d grade of secondary education. Strengthening of the STEM-oriented study areas, etc. (see https://onderwijs.vlaanderen.be/nl/modernisering-secundair)

(3) A third and fundamental reform is a planned curriculum reform. Between January and May 2016 a public and parliamentary debate on the final objectives was held with in order to revising the current curriculum. The debate (see www.onsonderwijs.be) aimed to ensure that all voices were heard and opinions captured with regards to what pupils should learn in today and tomorrows education. This implies that final objectives will be formulated more specifically, actual and that some priorities are highlighted. Choices will also be made for the topics STEM, ICT, media literacy and coding. Currently a working group within the Flemish Parliament is designing the principles for developing the new curriculum. From next school year the new curriculum will be gradually integrated.

2. DIGITAL EDUCATION POLICY

2.1. National/ regional digital education policies

The current ICT in education policy in Flanders is based on five pillars:

1. Curriculum support and competences development

The MoE aims at an integration of digital competences (incl. ICT and media literacy) across the curriculum. Our vision is that digital competences are an integrated set of knowledge, skills and attitudes that are generic for all levels of education. Important aspects are :

- a revision of the curriculum in Primary and Secondary Education based on the DigComp Reference Framework,

- The implementation of 7 new ICT-courses for Adult Education (see 3.4) and

- The implementation of a set of basic literacy competences in the fields of ICT, language math and financial literacy as part of the planned Curriculum Reform.

2. Infrastructure

ICT-infrastructure policies are currently limited to telecom services and software provisions. The Flemish government negotiates framework agreements with telecom providers and software resellers in order to provide flat fees for educational institutions.

3. Digital learning resources policy

For several years attention has been paid to the development of digital educational content but the former policy plan on media literacy boosted initiatives in this sense. The aim was to provide a broader range of digital resources. Since then funding schemes are in place to develop and to disclose in particular open educational resources (via www.klascement.be), digital archives and heritage (via www.viaa.be) and curriculum based serious games (via www.vaf.be/gamefonds). The Flemish MoE is also active to develop and promote open standards.

4. Training and support

In-service training has been at the core of ICT-policies since 1998. Several large scaled CPD-programs have been running since then. Currently there is a shift towards in-service training which is provided at school level by the local pedagogical ICT-coordinator. A specific and current in-service training provision is the Mediacoach Program which provides in-depth CPD on the use of digital and social media, media literacy competences and e-safety.

Government funds specific ICT-coordination time: earmarked hours within the total amount of human resources. The ICT-coordinator supports the team and the school management to take appropriate measures with regards to ICT-integration. The ICT-coordinator has technical as well as pedagogical tasks and roles.

An important step to support schools is the structural collaboration with the Flemish Knowledge Centre for Media Literacy

Other support programs target specific issues (such as special needs education, e-safety, gaming, social media use in schools, image and film literacy,…) by means of awareness rising campaigns, study days or the distribution of specific learning materials.

5. Research and innovation

The main project is the ICT-monitor that evaluates the state of affairs about ICT-infrastructure, ICT-use, media literacy, teachers and pupils competences and perceptions. The ICT-monitor is used to measure evolutions in pre-primary, primary, secondary and adult basic education.

Furthermore the Flemish MoE participates in several stakeholder meetings of relevant strategic basic and applied research funded by the Flemish Agency for Research and Technology and the iMinds Research Centre.

2.2. Responsibilities

The **Flemish Ministry of Education & Training** is responsible for the following:

1. Funding schools (working resources, salaries, extra subsidies);
2. Developing educational targets (attainment targets);
3. Checking if the attainment targets are reached (via the Inspectorate);
4. Developing and running specific projects according to contemporary policy and societal needs, such as ICT and media literacy, literacy in general, the link between school and workforce, gender and equity, special needs, inclusion, equal opportunities, STEM, entrepreneurship, citizenship and quality school buildings.

The educational school networks act as the representative associations of the governing bodies of the schools and take over some of their responsibilities. (The governing bodies are the school boards. They are the main decision making body at school level.) They are in charge of pedagogical and organisational issues such as curriculum development, timetables, school support, etc.

The four main educational networks are as follows:

- The Flemish Community Education Authority

- The Education Secretariat of the Association of Flemish Cities and Municipalities

- The Flemish Secretariat for Catholic Education

- The Flemish Provincial Authority Education Group

As far as teaching methods, teaching programmes, pupil evaluation and pedagogical projects are concerned, the various educational networks and schools are largely autonomous. Every governing body ("inrichtende macht") autonomously defines its pedagogical project or mission statement. Therefore, there is no government control as long as the projects do not contravene the democratic principles and the legal and statutory provisions upon which the Belgian State is based.

2.3. Specific digital education initiatives

Area	Short description
Student identity management and School management systems	*Smartschool is the most important school and student management system in Flanders with a market share of over 90% in secondary education and market leader in primary as well. Smartschool is a portfolio of different apps and tools for administration (document management, planning, class and school agenda,…) learning management (assessment and results, content and task management,…) -, single sign on for educational content and communication between school, pupils and parents.* *LED is the Learning and Diploma Database. Each citizen can access this database with an eID and obtain a digital copy of his or hers certificates, diplomas etc.* *MyEducation aims at to stimulate a more efficient exchange of data, knowledge and information between all relevant school actors. At this (initial) stage MyEducation offers 3 main services: the digital platform (personalized), a data bundle for schools and a digital workspace with official documents, school profiles and circular letters.*
New learning spaces	*1/ Regional Technological Centers (RTCs) provide better alignment of VET-education and training with the needs of the labor market. The RTCs bring together partners from education and business together.* *There is an RTC in every Flemish province. A regional technological center creates synergies between educational institutions and companies and supports technical education, vocational education and learning time. It does so by sharing technological infrastructure and high end technological equipment.* *See: https://onderwijs.vlaanderen.be/nl/regionale-technologische-centra* *2/ The study of Powerful Learning Environments* *In the Master plan for School Building (17 July 2015) a study is ordered to capture good practice in design of innovative learning environments, with a specific attention on differentiation, ICT-supported learning and the support of multiple learning styles (blended learning) and how it is used in practice. This study will be carried out by the VUBand will be finalized in September 2018.*

	3/ IMEC Smart education via the Edulab Program: Imec's smart education program focuses on the deployment of educational technology in education. Central to the development and testing of smart technologies (sensors, algorithms, adaptive learning platforms, etc.) needed to facilitate interaction and collaboration during the learning process and for the introduction of tailor-made learning solutions. In the present knowledge society, such solutions are crucial to enable each of us to gain the best knowledge and skills, in a way that is adapted to individual learning characteristics. *The Smart Education program brings researchers from all over the world - including research groups at KU Leuven, VUB and UGent - for the development of smart educational applications. They work around four topics:* - *Research about individual learning behavior so that tailor-made learning solutions can be built to help everyone acquire knowledge in an optimum, personalized manner.* - *The development of smart education technologies - from sensors for capturing neurological data and data analysis software to visualization and gaming technology.* - *Trial search with real users in authentic learning environments in which new education technologies can be extensively tested and edited.* - *Social and economic valorisation - from providing the Smart Education technology and know-how to Flemish education and training institutions to its international exports.*
Game based education	*In 2012, the Game Fund, was established aiming at stimulating and supporting the creation of games by Flemish developers, publishers and producers. The Flemish Audiovisual Fund is entitled to manage the Game Fund. The Game fund supports both educational or serious games and entertainment games. Bi-annual call are issued. (www.vaf.be/gamefonds)*
Implementation of **computing, coding, computational thinking initiatives**	*The Department of Education organizes the Code Festival in the context of the Europe Code week. This is a large scale awareness rising initiative created to support classroom programming. The goal is to start as many students as possible in as many classes and schools as possible with a coding project. The activities take place within the*

	framework of the EU Code Week. Paricular attentipon is gven to the dissemination of good practice and sharing open content via de the www.codefestival.be website.
Self- or peer assessment tools/frameworks for teachers and students	no available information
Tests (ICT or non ICT based) for teachers and students	no available information

2.4. Digital education priorities

Area	High priority	Medium priority	Low priority
A: Digital Competence Development			
Developing measures to support digital competence of **future teachers**		*x*	
Developing measures to support digital competence of **in service teachers**			*x*
Developing measures to boost youth **employability and entrepreneurship**	*x*		
ICT for **accessibility** and **inclusion**: early school leavers, migrants, special educational needs etc.	*x*		
B: Curricula and Assessment			
Developing **digital competence/media literacy** of students	*x*		
Developing computer/programming skills/**computational thinking skills**		*x*	
Developing **key competences** [1]	*x*		
Developing **21st century skills** (critical thinking, problem solving, communication, collaboration, creativity and innovation)	*x*		
Assessing with ICT/ICT based exams			*x*
C: System-wide innovation			
Developing measures to support **school leaders** in the integration of ICT		*x*	
Piloting and validating innovative uses of		*x*	

[1] See EC Key competences for lifelong learning: digital competence, math science technology, communication in mother tongue, communication in foreign languages, learning to learn, social and civic competences, sense of initiative and entrepreneurship, cultural awareness and expression. http://europa.eu/legislation_summaries/education_training_youth/lifelong_learning/c11090_en.htm

ICT			
Mainstreaming ICT in schools	*x*		
Monitor and research digital learning in schools	*x*		
Learning analytics (using digital technologies and data to support learning)			*x*
D: Mobile Devices			
Use of tablets			*x*
Use of mobile phones			*x*
Bring Your Own Device		*x*	
Cloud computing/services			*x*
E: Use of digital learning resources			
Developing educational content repositories/metadata	*x*		
Supporting the development of open educational content and resources	*x*		
Supporting the development of educational content/resources provided by publishers	*x*		
Promoting teachers' use, creation and sharing of educational resources	*x*		
F: Learning environments			
Developing/adapting flexible learning spaces			*x*
Linking formal, non-formal and informal learning using ICT			*x*
Providing equitable access to ICT (infrastructure, devices and content)		*x*	
Providing a safe learning environment to students and teachers	*x*		

3. INTEGRATION OF DIGITAL TECHNOLOGIES IN THE CURRICULUM

3.1. Digital technology based assessment

Programmes for ICT-based assessment are not structurally incorporated in compulsory education. It belongs to the schools autonomy to define and choose the appropriate way of evaluation.

3.2. School improvement with ICT

Flanders takes part in the large scale SELFIE pilot aiming at providing schools with a comprehensive and validated school feedback system on e-maturity.

3.3. The curriculum framework

The Ministry's "Agency for Quality in Education & Training" defines the curricula for compulsory education. The principle of "learning outcomes" is very important in the Flemish educational administration. In Flanders, there is a distinction between final objectives ("eindtermen") and developmental objectives ("ontwikkelingsdoelen"). Final objectives are minimum objectives with regard to knowledge, insight, skills and attitudes, which the educational government regards as necessary and attainable for compulsory education. Developmental objectives are minimum objectives which the educational government regards as desirable for special education. Final objectives and developmental objectives are both used by the Flemish government for quality control. Both, final and developmental objectives can be subject-related or cross-curricular. Subject-related objectives are stipulated at a certain stage for all pupils.
Cross-curricular final objectives are minimum objectives which do not specifically appertain to one area of learning but which can be aspired to by several areas of learning or educational projects. The cross-curricular final objectives entail an obligation of effort for the school.

Curricula are generally structured as follows:

In primary education:
Subject related final objectives: Physical education, Dutch, French, Science and Technology, Humans and Society, Expressive arts, Mathematics.
Cross-curricular Final objectives: ICT, Learning to learn, Social skills

In secondary education (first grade):
Subject related final objectives: Physical education, Dutch, Modern Foreign languages (French, English), Natural sciences, Geography, History, Expressive arts, Mathematics, Technology Education
Cross-curricular Final objectives: ICT, Learning to learn, Social skills, Health Education, Environmental education, Citizenship

3.4. Digital technologies in the curriculum

Compulsory education

ICT is a separate subject in secondary education but not in primary education.

The ICT-related cross-curricular final objectives and development objectives are designed to be deployed in primary education and/ or the first level of secondary education. No separate objectives are defined for pre-school education. The aim is not to create a separate subject in basic education, as a result of opting for cross-curricular final objectives. ICT provides opportunities within all subjects and

fields of study.

Starting from the second level of secondary education, ICT is deployed in a more specific and subject-based way depending on the type of education and the educational level. Specific or more specialised components are then added in accordance with the training needs.

The focus in primary education and the first stage of secondary education is on the pupils' social independence. The 8 cross-curricular final objectives and development objectives for primary education and the 10 objectives for the first stage of secondary education section of the compulsory education system form the basis for creating the ICT curriculum. Technical and instrumental knowledge and skills are not a part of the curriculum targets.

ICT in Adult Basic Education

Since April 2012, the ICT modular training profile in the Centres for Basic Education (CBE) was completely reformed. In order to bring it in line with the new ICT curriculum in compulsory education, a new set of 30 attainment targets was developed, to be spread over 5 modules. Allowing adults to experiment in a safe and well supervised environment, the Centres for Basic Education create ideal opportunities for ICT integration. The CBE play a key role in adult education. The aim of the centres is to provide the necessary knowledge and skills to less qualified adults on the basis of self-reliance and self-development. The key task of the CBE is to deal with illiteracy and low levels of literacy, digital competence and of numerical skills.

ICT in secondary adult education

Apart from the CBE there are also 111 Centres for Adult Education hosting not less then 322.744 enrollments in courses on a broad range of topics. However if we rank the most popular courses, ICT comes on a third place after Dutch as a second languages and foreign language courses.

Adult education offers modular courses. The subject matter is subdivided into a number of modules. The centre is free to spread a module over part of the year or the entire year. The modules can be organized as contact education or as combined education. In contact education, all lessons are taught in the centre. As for combined education, part of the module is taught in the classroom and part of the module can be learned autonomously,
at home or in an open learning centre. The courses in secondary adult education are subdivided into 31 courses of study and lead to a certificate (examples: ICT,

construction, fashion, languages, crafts, design, etc.). The courses of higher vocational education are subdivided into 6 courses of study: Economy, ICT, Education, Social Work, Technics and Tourism. These courses can lead to a diploma.

Since the academic year 2016-2017 a completely new curriculum is in place based on the European DigComp framework for citizens. Course participants can now choose between the following modular courses:

- A basic skills course “Start to ICT” with 2 modules: “to start with ICT” and “e-communication, internet and cloud computing”). This course is the basics (required) for all other ones.
- ICT and administration (9 modules)
- ICT and social media (3 modules: “publishing and communication on social media”, “e-safety” and” e-services”)
- Creative use of ICT (12 modules of which 2 compulsory and 4 to choose)
- ICT for education (7 modules: “VLE”, “authoring tools”, “e-safety”, “content presentation”, “developing content” and “developing and maintaining a private webspace”)
- Webcontent (4 modules)
- App development (4 modules: “developing a simple app”, “app lay-out and functionality”, “content for apps”, “optimalisation of apps”)

Two other profiles (“Programming” and “ICT operating systems and networks”) were completely updated.

3.5. Students’ digital competence

The cross-curricular final objectives and developmental aims of ICT are as follows:

Normal primary education and special primary education, types 1, 2, 7, 8[2]:

1. Pupils have a positive attitude towards ICT and are willing to use ICT in support of their learning.
2. Pupils use ICT in a safe, sensible and appropriate way.
3. Pupils are able to practise independently in an ICT supported learning

[2] Typologie of special education:

- TYPE 1 : pupils with a mild mental disability (= not organised at nursery level)
- TYPE 2 : pupils with a moderate or serious mental disability
- TYPE 3 : pupils with serious emotional and/or behavioural problems
- TYPE 4 : pupils with serious physical disability, mostly motor deficiencies
- TYPE 5 : pupils who have to stay in a hospital or other medical institution for a longer period of time (ill children)
- TYPE 6 : for the blind and partially sighted (= visual impairment)
- TYPE 7 : for the deaf and hard of hearing (=hearing impairment)
- TYPE 8 : for pupils with serious learning difficulties (= not organised at nursery and secondary level)
- TYPE 9 : for pupils with autism spectrum disease

environment.
4. Pupils are able to learn independently in an ICT supported learning environment.
5. Pupils are able to use ICT to express their own ideas in a creative way.
6. Pupils can retrieve, process and save digital information that is appropriate for them, by means of ICT.
7. Pupils are able to use ICT in presenting information to others.
8. Pupils are able to use ICT to communicate in a safe, sensible and appropriate way.

First stage of secondary education A and B streams and first stage of special secondary education – education type 3:

1. Pupils have a positive attitude towards ICT and are willing to use ICT in support of their learning.
2. Pupils use ICT in a safe, sensible and appropriate way.
3. Pupils are able to practise independently in an ICT supported learning environment.
4. Pupils are able to learn independently in an ICT supported learning environment.
5. Pupils are able to use ICT to express their own ideas in a creative way.
6. Pupils can retrieve, process and save digital information by means of ICT.
7. Pupils are able to use ICT in presenting information to others.
8. Pupils are able to use ICT to communicate in a safe, sensible and appropriate way.
9. Pupils are able to make an adequate choice out of different ICT applications depending on the objective to be reached.
10. Pupils are willing to adjust their actions based on reflection upon the use of ICT by themselves or others.

Media literacy in upper secondary education
Media literacy has become one of the cross-curricular attainment targets for secondary education as of 1 September 2010.
The media literacy attainment targets read as follows:
•The students deal with media in an alert manner. •The students participate in the public space through media in a well-considered manner.

3.6. Assessment of digital competence

Pupils are examined by their class or subject teacher. After the examinations it is the so called “class team council” who decides if a student passes to the next year or grade. Pupils are assessed by means of **tests** and **examinations**, organized by the individual specialist teacher under the ultimate responsibility of the school’s organizing body (“inrichtende macht”).

Under the planned reform of Secondary Education a standardized and validated

test will be offered at the end of primary education.

The final objectives are certified solely via the usual compulsory education channels: apart from the basic primary certificate, the secondary education diploma (general secondary education, secondary education in the arts, technical secondary education) or the study certificate (vocational secondary education) there is no separate certificate to confirm that pupils in the compulsory education section have acquired ICT competences.

In secondary education, the class council ("klassenraad") acts as the central assessment body. The class council is responsible for guidance and deliberation and consists of the principal or his representative and all the members of the teaching staff who teach a particular pupil in a particular grade (these persons are entitled to vote).

4. DIGITAL LEARNING RESOURCES AND SERVICES

4.1. Digital content development

The key principles of the policy on development of software and digital learning objects are:

- It is up to the educational publishers to develop the learning objects required to flesh out the curricula.
- Both commercial software and open-source software have a role to play in education. Educational establishments are free to choose on the basis of their needs and requirements. The government is keen to encourage the maximum use of open standards.

Standardising learning objects

- The Flemish Ministry of Education is a key player in the promotion of metadata standards. Already in 2007 "PUBELO" application profile for IEEE/LOM was published. Within PUBELO, participants in the field of digital educational content agreed to deploy an educational standard (LOM metadata profile) within a large group of relevant stakeholders (such as publishers or managers of portal sites or electronic learning environments). The government input is providing incentives for the creation and recognition of open standards (www.pubelo.be).
- The government encourages teachers to develop teaching aids themselves. The educational portal (www.klascement.be) supports teachers in sharing and delivering learning objects.
- Regarding e-safety, a strategic partnership is set up with the national Safer Internet node Child Focus. The aim is to promote and disseminate e-safety materials developed under the safer internet program to Flemish educational stakeholders. (www.clicksafe.be)
- An important recent development since 2012 was the creation of a Flemish Institute for the Archiving of the Audio-visual Heritage (VIAA) in Flanders.

Since then the digitalisation and opening up of audio-visual archive material supplies a wealth of content that can be used in numerous media literacy projects. The materials are contextualised for class use, so that they can be made available to different learning areas and subjects (and are not exclusively used for evident purposes such as history education, for instance). VIAA established a dedicated platform for education called “Het Archief voor Onderwijs” which was launched in January 2016. Currently there are more than 11.000 audio-visual assets covering all areas of the curriculum. www.viaa.be and https://onderwijs.hetarchief.be/

- Game Fund. In 2012, the Game Fund, was established aiming at stimulating and supporting the creation of games by Flemish developers, publishers and producers. The Flemish Audiovisual Fund is entitled to manage the Game Fund. The Game fund supports both educational or serious games and entertainment games. Annual call are issued. (www.vaf.be/gamefonds)

4.2. Content sharing and creation

One of the key projects is the creation of an educational portal site serving as a multipurpose electronic knowledge centre. Firstly, the portal site acts as a central access point for educational information and support. This involves developing and offering information, examples of good practice and thematic files to various target groups. These may be on general or specific themes (such as dimensions involved in the integration of ICT, learning participation, lifelong learning, special needs education, etc.). The portal site also offers effective digital teaching aids (e-learning opportunities) in an accessible and structured way. (www.klascement.be).

Subsites of Klascement are dedicated to particular parts of the collection such as

- STEM, http://www.klascement.net/kiezenvoorstem/
- Coding: www.codefestival.be
- Special needs http://www.klascement.net/leerzorg/
- Entrepreneurship: http://www.klascement.net/ondernemenopschool/
- Remembrance education: http://www.klascement.net/herinneringseducatie/
- Exercises: www.oefen.be
- Educational apps: www.appsakee.be

4.3. Accessibility for learners with disabilities and social inclusion

From 01/09/2015 on, a completely new framework is in place regarding special needs education and inclusion. This reform is due to so called SEN Act as described in section 1.2. For ICT policies one particular measure will have considerable impact mainly the right for reasonable adjustments.

The Ministry of education funds and supports several service organizations and projects in the field of ICT for SEN:

A specific learning environment and e-mail client has been developed for children with a mental disability. The software is fully integrated in the educational portal KlasCement (www.wai-not.be)

- The BEDNET project enables sick children to take lessons at distance via the appropriate technology and stay in contact with their school, teachers and classmates: www.bednet.be. Bednet facility is structurally embedded since the right for SIO Synchroon Internet Onderwijs (synchrone education over internet) is guaranteed by the SEN Act.

- The non-profit organisation Dieslektikus seeks to raise the awareness about pupils with learning problems (dyslexia, ADHD,…) and provides training, study days and materials. This organization runs also the ADIBIB project which provides enriched digital versions of classical handbooks for children with severe dyslexia. (www.letop.be)

- The ADIBib project seeks to create opportunities for students with written communication impairments to enable them to fully participate in social life and achieve higher academic goals (unrestricted by their impairment). The project targets primary and secondary education students with serious reading and writing disorders. Another major goal was to develop software to automate the process of converting text in PDF files into a ready-to-read version for text-to-speech. The adapted version has to be usable irrespective of the user's software application. The participation of publishers was key in order to reach this goal and to make a wider selection of materials available to students with learning disabilities. Accordingly, a long-term agreement between ADIBib and publishers was drafted. See: http://www.adibib.be/

- Worth mentioning is the dedicated SEN section on our educational portal Klascement, where individual teachers as well as organisations active in the fielf of SEN/ICT are sharing educational content for pupils with special needs. www.klasscement.be/leerzorg

- By the end of 2017 a new program will be launched to fund the availability of dyslexia software. 650K euro is reserved to facilitate a broader distribution of the software and to support pupils, parents and schools.

- CLB chat is a digital welfare program run by the Pupils Guidance Centres (Centra voor Leerlingen begeleiding –CLB). These centres (every schools has to associate with one) provide school and pupils support on physical and psychological health, welfare and study orientation. As such the CLB are a second in line support service. To lower the step for pupils to ask for help or counselling, CLB-chat was developed. The service offers digital communication tools between pupils and the local CLB. https://www.clbchat.be/

- The Support Center for Inclusive Higher Education (SIHO) promotes equal

opportunities and full participation in higher education for students with disabilities. SIHO specializes in taking actions to remove any obstacles to full participation. ICT (adjustments and tools) is just one area in which SIHO is active. http://www.siho.be/english

4.5. Learning Platforms

- The commercial platform "Smartschool" is the most widely used platform in Flemish schools. It is a local commercial tool. The tool consists of 16 modules: news, links, assignments, web links, tests, learning paths, an agenda, exercises, documents, an upload section, reports, questionnaires, a forum, a collaboration zone, classmates and subject areas. Extra optional tools are "skore", a follow up-system for pupils, communication tools and specific administration tools such as registration and reservation modules, picture storage and lesson schedules (www.smartschool.be).
- Open source products such as Moodle, Dokeos/Chamilo are also used by some schools, although to a lesser extent.

5. TEACHER EDUCATION FOR DIGITAL LEARNING

5.1. Assessment Schemes

There are no general assessment schemes for ICT competence. ICT competence assessment can differ from institution to institution.

5.2. School leader support

1. The main support lies in granting extra personnel for ICT-co-ordination. The ICT-coordinator supports the team and the school management to take appropriate measures with regards to ICT-integration. The ICT-coordinator has technical as well as pedagogical tasks and roles.

2. Schools can ask support and training from the Knowledge Centre for Media Literacy. Key tasks of the Knowledge Centre are:
   - The development of a media literacy competence framework and the support of schools, libraries, youth organizations etc. to implement media competences.
   - The development of a permanently updated map of media literacy initiatives, projects and stakeholders in Flanders.
   - Organization of in-service training incl. moocs for professionals such as teachers as well as for the citizen.
   - Supporting media industry and e-inclusion initiatives.
   - Raising awareness on different ML topics and for different target groups.
   - Proving advise and recommendations for policy makers.
   - Funding relevant projects in the field of ML.
   - Stimulating networks between stakeholders both at regional, national and at EU level.

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5.3. Digital technologies in initial teacher education

The learning outcomes of teacher education are described as basic competences. There are three groups and ten subgroups of basic competences. ICT and media literacy are integrated in several of the subgroups and therefore compulsory. How these topics are integrated in practise in the curriculum can differ. They can range from 1:1 pedagogy and seminars to short-term trainings.

Responsibilities with respect to the learner:

a. The teacher as a guide of learning and development processes
b. The teacher as an educator
c. The teacher as a (subject – content) expert
d. The teacher as an organizer
e. The teacher as an innovator / researcher

Responsibility towards the school / the educational community:

a. The teacher as a partner of the parents
b. The teacher as a partner of the school team
c. The teacher as a partner of the external community
d. The teacher as a member of the educational community

Responsibility with respect to the society:
The teacher as a participant in the cultural community:

Socio-cultural field
Socio-economic field
Philosophical field
Cultural-aesthetic field
Cultural-scientific field

5.4. ICT in in-service teacher education

It is not compulsory to follow in-service training in Flanders. Schools have full autonomy to develop an in-service training plan and policy. However CPD is stimulated by granting every school in Flanders an earmarked budget for in-service training. Most ICT training no longer stands alone (such as through separate ICT courses) but constitutes an integral part of a subject-oriented or theme-oriented training.

A specific f program was developed as part of the former Media Literacy Policy Plan and is still in place: the Mediacoach intensive training program. Mediacoach is a training for professionals working with young people and / or adults who want to integrate media literacy in their own practice. A media coach acts as an advocate and contact point for all aspects of digital media use and policies.

As part of a 10 days training program, participants must also set up a project in their own school or organisation. The program in Flanders is funded by the Flemish government (Department of Education) and organized by the Knowledge Centre for Media Literacy. www.mediacoach.be

5.5. Training the Teacher Trainers

No data available

Studies on digital technologies in school education

MICTIVO stands for “Monitor ICT in het Vlaamse Onderwijs” (ICT Monitor in Flemish Education). This ICT Monitor includes analyses with respect to four groups of indicators that are surveyed: ICT infrastructure, ICT integration, competences and perceptions regarding ICT use at school. The survey is taken of headmasters, teachers and students and thus results in a broad image of the ICT situation and the use of new media in Flemish education. A new data collection is planned for 2017. Results will be made available via www.mictivo.be.

Publisher: European Schoolnet (EUN)
Author: Jan De Craemer
Editor: Alexandra Hanna Licht (European Schoolnet)
Coordinator: Anja Balanskat (European Schoolnet)