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MY HUB

HANDBOOK

How to strengthen the implementation of inclusive education at mainstream schools?

Project: MyHUB – a one-stop-shop on inclusion practices, tools, resources and methods for the pedagogical staff at formal and non-formal educational institutions.

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EUROCY INNOVATIONS

Table of Contents

Foreword

Prof. Linda Daniela

The origins of inclusive education can be traced back to the attempts of integrating people with special needs into education in Scandinavia, the United States and Japan in the 1970s, but the results showed that such integration offers opportunities to improve the achievement for students with mild disabilities while those with severe disabilities faced even greater discrimination. Over time, it has been concluded that simply integration is not the key word for supporting students with special needs, so other solutions were needed.

The next milestone is 1994, when representatives of 92 countries and 25 international organizations at the World Conference on Special Needs Education in Salamanca (Spain) adopted a new Statement on the education of all disabled children, which called for inclusion to be the norm and where the guiding principle is for ordinary schools to accommodate all children, regardless of their physical, intellectual, social, emotional, linguistic or other conditions.

Despite the fact that 26 years have passed since the adoption of the Salamanca Statement, it must be acknowledged that not all situations and contexts are always taken for granted and there are still countries where inclusive education is only defined in political documents but not a common practice. However, during these 26 years, the world has accumulated rich experience in implementing inclusive education and organizing various activities to ensure access to education for every individual.

In the MyHUB project - A *one-stop-shop on inclusion practices, tools, resources and methods for the pedagogical staff at formal and non-formal educational institutions*, its participants are committed to bringing together a variety of good practices in inclusive education to ensure knowledge transformation through lending and borrowing the principle developed by Gita Steiner-Khamsi where it takes different dimensions to share good practices among different countries, among different educational levels and among people with diverse special needs.

This handbook is the result of a project, which has gathered information on the principles of inclusive education and the situation in the project countries. It will be useful for teachers who

are eager to create an inclusive learning environment, for parents who wish to understand the principles of inclusive education and for other stakeholders in education.

Karel Van Isacker

The UN Convention for the Rights of Persons with Disabilities makes it very clear that the (continued) existence of special education is contrary to the principles of this Convention. Hence the M-decree was implemented. Unfortunately, I fear that this pressure on the gradual dismantling of special education has led to a "parents' right to have their child in mainstream education (if possible) to take lessons", which we have now apparently shifted to "an obligation of parents to do that unless it really goes wrong there ". That is not the right starting point.

Introduction

Contributor: Zanda Rubene (University of Latvia, Latvia)

The challenges posed by the implementation of inclusive education are one of the current tasks of professional activity for teachers, university lecturers, and education policy makers in the European Union and abroad. Despite the international community's determined efforts to integrate, some countries still face difficulties and obstacles in obtaining quality education for the welfare state of children and young people in the country.

This fact confirms that the need to implement inclusive education does not diminish the need for a systemic approach to tackling social exclusion caused by barriers to education.

However, inclusion is not just a matter of the education system: inclusion is, in essence, an indicator of the democratization of the society. Public attitudes towards inclusion demonstrate the level of tolerance as an important value of a democratic society. Attitudes towards inclusion also highlight the value of civil society, such as social belonging and recognition.

Everyone has the need to feel being a part of the society, to feel recognized and included in the social community, but in order to exercise the right of all people to recognition and belonging, it is natural to demand the ability of every individual to be tolerant and tolerant of diversity in society. Social exclusion is an indicator of the lack of a sense of belonging and recognition of a certain part of the society, as well as indicates the lack of tolerance on the part of other members of the society. Inclusion is a complex social task, and the role of education in tackling it is undeniably important.

Short description of the project

The project will reduce the barriers to inclusion through active collaboration between the educators and other stakeholders, including the active involvement of policy-makers, members of the local community, such as political and religious leaders, local education officials and mass media.

The success of creating inclusive education as a key to establishing inclusive societies depends on the agreement among all relevant partners on a common vision supported by a number of specific steps to be taken to put this vision into practice.

The move towards inclusion is a gradual one that should be based on clearly articulated principles that address system-wide development and multi-educational sectoral approaches involving all levels of the society.

Description of the purpose of the Handbook and the content

This handbook will equip the inclusive education ambassadors with the necessarily knowledge, resources and strategies to enable them to mainstream and support the implementation of inclusive education practices.

The target users:

- Pedagogical staff at early childhood institutions and schools: teachers, trainers, head teachers, principals, headmasters, resource tutors;
- Social and youth workers;
- Non-governmental organisations;
- Educational planners / policy makers – local educational authorities, municipality departments on inclusive education policies, respective departments at Ministry of education and science, Ministry of youth and sports etc.

Equity and implementation of inclusive education

Contributors: Dita Nimante (University of Latvia, Latvia) and Karel Van Isacker (PhoenixKM, Belgium)

Equity means ensuring that everyone has access to the same opportunities. In education, education equity means that everyone has access to the same qualitative educational opportunities. As education is considered to be the means of transforming the lives of children, of enabling upward socioeconomic mobility and the key to escaping poverty, it is important to ensure the access to education and school enrolment for all children. Educational equity should be provided by enhancing education systems, education programmes and classes by taking into account the wide diversity of children's characteristics and needs, and by providing education for all.

Education for all is the foundation of inclusive education. The 1994 UNESCO Salamanca Statement[1] recognized the importance to work towards "schools for all" - institutions which include everybody, celebrate differences, support learning, and respond to individual needs. As it was stated in Salamanca Statement "Education for All effectively means FOR ALL, particularly those who are most vulnerable and most in need"[2]. It was a new direction for special needs education, by ensuring that children with special needs have an equal right to education to learn in regular schools together with their siblings.

The success of creating inclusive education as the key to establishing inclusive societies depends on the agreement among all relevant partners on a common vision supported by a number of specific steps to be taken to put this vision into practice. The move towards inclusion is a gradual one that should be based on clearly articulated principles that address system-wide development and multi-educational sectoral approaches involving all levels of the

[1] UNESCO. (1994). The Salamanca statement and framework for action on special needs education. UNESCO.

[2] UNESCO. (1994). The Salamanca statement and framework for action on special needs education. UNESCO. Page 4.

society. The barriers to inclusion can be reduced through active collaboration between policymakers, educational staff and other stakeholders, including the active involvement of members of the local community, such as political and religious leaders, local education officials and the media.

Worldwide

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Education was recognized as a human right in the UN "Universal Declaration of Human Rights" article 26 in 1948[3]. In 1960, the UNESCO "Convention against Discrimination"[4] declared that discrimination in education is a violation of rights enunciated in the "Universal Declaration of Human Rights". In article 1 discrimination was explained as any "distinction, exclusion, limitation or preference which, being based on race, colour, sex, language, religion, political or other opinion, national or social origin, economic condition or birth, has the purpose or effect of nullifying or impairing equality of treatment in education". Although the disability was not included in the "Convention against Discrimination" as a characteristic that would lead to any form of discrimination, in the following years disability was internationally recognised as a possible reason for discrimination in education, it stated stated that the right to education is for all children. At the 1990 Jomtien "World Conference on Education for All"[5] it was ensured that there is right for all in education regardless of individual deterrence. Several United Nations declarations culminated in the 1993 United Nations "Standard Rules on the

[3] United Nations. (1948). *Universal declaration of human rights*. https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf

[4] UNESCO (1960). *Convention against discrimination*. http://portal.unesco.org/en/ev.php-URL_ID=12949&URL_DO=DO_TOPIC&URL_SECTION=201.html

[5] UNESCO (1990). *World conference on education for all: Meeting basic learning needs*. Jomtien, Thailand. https://unesdoc.unesco.org/ark:/48223/pf0000097551

Equalization of Opportunities for Persons with Disabilities"[6]. 1994 UNESCO Salamanca Statement provided the political and philosophical ground for developing inclusive education for all in years to come.

The 2006 UN "Convention on the Rights of Persons with Disabilities"[7] article 24, clearly aimed at realizing the right to education of people with disabilities 'without discrimination and on the basis of equal opportunity'.

Primarily, inclusive education for a person with disabilities is a guaranteed right by the Universal Declaration on Human Rights[8]. Besides, the UN adopted The Convention on the Rights of Persons with Disabilities (CRPD)[9] and its optional protocol on December 13, 2006[10]. This convention contains fundamental human rights and personal freedom. This Convention emphasized the right to inclusive education with a General Comment (No. 4) in 2016. It stresses that the recognition of inclusion as the key to achieving the right to education has strengthened over the past 30 years. The Convention on the Rights of Persons with Disabilities also enshrined the first legally binding instrument to contain a reference to the concept of quality inclusive education. Sustainable Development Goal 4 to affirms the value of inclusive, quality, and equitable education. Inclusive education is central to achieving high-quality education for all learners, including those with disabilities, and the development of inclusive, peaceful, and fair societies.

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[6] United Nations. (1993). *Standard rules on the equalization of opportunities for persons with disabilities.* https://www.un.org/development/desa/disabilities/standard-rules-on-the-equalization-of-opportunities-for-persons-with-disabilities.html

[7] United Nations. (2006). *Convention on the rights of persons with disabilities.* https://www.un.org/disabilities/documents/convention/convention_accessible_pdf.pdf

[8] United Nations. (1948). *Universal declaration of human rights.* https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf

[9] United Nations. (2006). *Convention on the rights of persons with disabilities.* https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html

[10] United Nations. (2006). *Optional protocol to the convention on the rights of persons with disabilities.* https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/optional-protocol-to-the-convention-on-the-rights-of-persons-with-disabilities.html

CRPD Article 24[11] indicates that

1. State parties recognize the right of persons with disabilities to education. To realize this right without discrimination and based on equal opportunity, State parties shall ensure an inclusive education system at all levels and lifelong learning directed to:
   1.1. the full development of human potential and a sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms, and human diversity;
   1.2. the development by persons with disabilities of their personality, talents, and creativity, as well as their mental and physical abilities, to their fullest potential;
   1.3. enabling persons with disabilities to participate effectively in a free society.
2. In realizing this right, State parties shall ensure that:
   2.1. persons with disabilities are not excluded from the general education system based on disability, and that children with disabilities are not excluded from free and compulsory primary education, or secondary education, on the basis of disability;
   2.2. persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live;
   2.3. reasonable accommodation of the individual's requirements is provided;
   2.4. persons with disabilities receive the support required, within the general education system, to facilitate their effective education;
   2.5. effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion.
3. State parties shall enable persons with disabilities to learn life and social development skills to facilitate their full and equal participation in education and as members of the community. To this end, State parties shall take appropriate measures, including:
   3.1. facilitating the learning of Braille, alternative script, augmentative and alternative

[11] United Nations. (2006). *Convention on the rights of persons with disabilities. Article 24.* https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-24-education.html

modes, means and formats of communication and orientation and mobility skills, and facilitating peer support and mentoring;

3.2. facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community;

3.3. ensuring that the education of persons, and in particular children, who are blind, deaf or deaf and blind, is delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximize academic and social development.

4. To help ensure the realization of this right, State parties shall take appropriate measures to employ teachers, including teachers with disabilities, who are qualified in sign language and/or Braille and to train professionals and staff who work at all levels of education. Such training shall incorporate disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication, educational techniques, and materials to support persons with disabilities.
5. State parties shall ensure that persons with disabilities can access general tertiary education, vocational training, adult education, and lifelong learning without discrimination and on an equal basis with others. To this end, State parties shall ensure that reasonable accommodation is provided for persons with disabilities.

Article 24 mainly constructs the basic levels of the inclusive education and guides member states and other institutions accordingly.

The inclusive education and the equity in education has been an important agenda in the worldwide international documents for a while, yet the advocacy for inclusive education continues to grow. In the United Nations (UN) 2030 Agenda for Sustainable Development[12], the plan of “action for people, planet and prosperity” comprises 17 Sustainable Development Goals (SDGs). The fourth Sustainable Development Goal (SDG 4) is the educational: to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”.

[12] United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

EU level

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European Union and its institutions encourage an inclusive environment especially in the European education system. In the first step, all European legislation systems progress in harmony with the UN regulations. All EU members accepted UN CRPD protocols for the implementation of their education system. The European Convention of Human Rights (ECHR)[13] in article 14 states that "the enjoyment of the rights and freedoms outlined in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinions, national or social origin, association with a national minority, property, birth or another status". According to Treaty on the Functioning of the European Union[14], "In defining and implementing its policies and activities, the Union shall aim to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation "(art. 10)

In addition to these, the European Commission underlines through the European Pillar of Social Rights (2017)[15] that "Everyone has the right to quality and inclusive education, training, and life-long learning to maintain and acquire skills that enable them to participate fully in society and manage successfully transitions in the labour market". Moreover, both the European Commission and the European Council are collaboratively working on the

[13] Coucil of Europe. (2010). The European convention of human rights. https://www.echr.coe.int/documents/convention_eng.pdf

[14] European Union. (2012). Consolidated version of the treaty on the functioning of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT&from=EN

[15] European Commission. (2017). *The European pillar of social rights in 20 principles*. https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

implementation of education and training strategies (ET 2020)[16] to reach inclusive education, equality, equity, non-discrimination and the promotion of civic competences as priority areas for European cooperation in the field of education and training.

Besides, the European Accessibility Act[17] aims to encourage and improve the functioning of the internal market for accessible products and services, by removing barriers created by divergent rules in the Member States. The Act promises benefits for businesses, people with disabilities, and elderly people.

The Council of Europe[18] promotes the rights and full participation of the person with disability in society and specifically in education. Since 2009 several recommendations on ensuring full inclusion of children and young persons with disabilities have been developed (2009, 2010, and 2013).

The 2020 "Fundamental rights report"[19] provided a description concerning the EU progress towards fundamental rights issues on the EU level. One part of the report is devoted to children's rights. Although it reports slight improvement, the children's rights issue remains as important as before, as one in four children are under the risk of poverty and social exclusion, and the most vulnerable are those with migrant background. There are several groups that are experiencing discrimination in the society and education – Romas, children with different national and religious background, migrants, LBDRI. Although there are many plans for promoting inclusive education, only limited progress on inclusive education for children with disabilities is reported. The major problems are connected with:

[16] *The strategic framework for European cooperation in education and training (ET 2020) is a forum which allows Member States to exchange best practices and to learn from each other.* https://ec.europa.eu/education/policies/european-policy-cooperation/et2020-framework_en

[17] European accessibility act. https://ec.europa.eu/social/main.jsp?catId=1202#:~:text=The%20European%20accessibility%20act%20is,EU%20leading%20to%20costs%20reduction

[18] Council of Europe (n.d.). *Children with disabilities*. https://www.coe.int/en/web/children/children-with-disabilities

[19] European Union Agency for Fundamental Rights (EU body or agency) (2020). *Fundamental rights report*. https://op.europa.eu/en/publication-detail/-/publication/a7ce368c-ab89-11ea-bb7a-01aa75ed71a1/language-en?WT.mc_id=Selectedpublications&WT.ria_c=41957&WT.ria_f=5713&WT.ria_ev=search

- Separated education systems for children with and without disabilities;
- Lack of support and resources in regular schools for children with disabilities;
- Ongoing discrimination against children with disabilities in education and increased numbers of children with special needs in education.

Latvia

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On May 4, 1990, simultaneously with the proclamation of the declaration of independence, Latvia adopted the declaration on country's accession to international legal documents on human rights[20], thus confirming that Latvia legislators will be guided by the idea of human rights. By accepting the UN declaration, the Government of Latvia was obliged to report periodically to the UN on the country's progress. After each report, recommendations were received. Thus, the education system of Latvia has seen the impact of a range of international declarations and conventions. Gradually it has led to such regulations that ensured learning opportunities for all children including children with disabilities. At first, it was affirmed that every child has a right to education and every child is capable of learning, and the idea that some children are 'uneducable' was abandoned. It was a major turning point away from the times when disabled children were not considered to be part of humanity, so accordingly they did not have a right to education. The right to education was included as one of the fundamental rights of every child in Article 112 of the Satversme[21]. As a result, special schools in Latvia started to integrate children with severe disabilities[22], those who previously remained at home or in special care institutions.

[20] *Par Latvijas Republikas pievienošanos starptautisko tiesību dokumentiem cilvēktiesību jautājumos* [On the accession of the Republic of Latvia to international legal instruments on human rights issues] (1990). Augstākā Padome 04.05.1990., Latvijas Republikas Augstākās Padomes un Valdības Ziņotājs, 21, 24.05.1990

[21] Latvijas Republikas Satversme (1922). Satversmes sapulce. Latvijas Vēstnesis, 43, 01.07.1993. https://likumi.lv/ta/id/57980-latvijas-republikas-satversme

[22] Vīgante, R. (2008). Latvija – Vācija: kopīgais un atšķirīgais [Latvia – Germany: Similarities and differences]. *Skolotājs*, *1*.

Although the Law of Education in 1991 stated that education is for all, it was not specifically declared that it concerned children with disabilities.[23] It took some years to establish such a conceptual idea in the Law of Education. The newly developed Law of Education in 1998[24] stated that everyone has the right to education, including those who have some health issues and special needs. The Law on General Education explains special needs as "the necessity to receive such support and rehabilitation which creates an opportunity for a learner to complete an educational programme, taking into account his or her health condition, abilities, and level of development"[25]. The Law on the Protection of the Children's Rights[26] affirmed that every child has the right to have all necessary support to live a proper life despite his health conditions and special needs.

Although the legislation established a normative base for children's with disability (in Latvia – children with special needs) rights to education, it did not mean that automatically they were ensured inclusive education. At the beginning and middle of 90-ties the integration of children with special needs both in special schools (previously those who were called 'uneducable') and in regular schools (mostly in special classes), was considered to be a progressive move towards ensuring children with special needs rights to education. The Law on General Education stated that schools that have necessary means and resources can integrate children with special needs in regular classes[27]. Children with special needs were gradually integrated in regular schools, either by establishing special classes or integrating those children in the regular classroom. There were several Integrative programs developed. The first integrative schools were established, e.g., in 1994 the private school "Patnis" and in 1996

[23] Saeima. (1991). *Izglītības likums* [Law of education]. http://www.likumi.lv/doc.php?mode=DOC&id=67960

[24] Saeima. (1998). *Izglītības likums* [Law of education]. http://www.izm.lv/default.aspx?tabID=3&lang=1&id=102, http://www.likumi.lv/doc.php?id=50759&mode=ICDOC

[25] Saeima. (1999). Vispārējās izglītības likums [General Education Law]. *Latvijas Vēstnesis*, 213/215, 30.06.1999.; Latvijas Republikas Saeimas un Ministru Kabineta Ziņotājs, 14, 22.07.1999. https://likumi.lv/ta/en/en/id/20243

[26] Saeima. (1998). Law on the Protection of the Children's Rights. *Latvijas Vēstnesis*, 199/200, 08.07.1998.; Latvijas Republikas Saeimas un Ministru Kabineta Ziņotājs, 15, 04.08.1998. https://likumi.lv/ta/en/en/id/49096

[27] Saeima. (1999). Vispārējās izglītības likums [General Education Law]. *Latvijas Vēstnesis*, 213/215, 30.06.1999. https://likumi.lv/ta/id/20243-visparejas-izglitibas-likums

in Vaivari, Jūrmala – Vaivari secondary school (later- inclusive school), where children with special needs were integrated in regular school. Integrative processes are still present in the education system in Latvia.

In 2004, Latvia became a member of the European Union; before and after joining the EU the Latvian government made necessary and important changes in the legislation to synchronise it with EU requirements. By adapting EU values of humanity, equality and democratization, the rights to education for every child were promoted and a gradual move towards inclusive education was initiated.

The term *Inclusive education* for the first time was mentioned and explained in the medium-term planning document of education policy "Education Development Guidelines for 2014-2020"[28]. Although the term inclusive education still has not been included in the *Law of Education* and the *Law on General Education*, there have been some gradual changes in the legislation (on the level of Council of Ministers Regulation) to support inclusive education practice, both providing necessary financial resources and legal basis for inclusive education. The financial support for children with special needs has been expanded and there are many more opportunities provided to ensure the necessary support for children with special needs in regular school[29].

In Latvia there are several possible routes for children with special needs to acquire education.

- Home schooling (implemented by parents);
- Prolonged schooling for ill children at home, partially home/partially school schooling;

[28] Saeima. (2014). Izglītības attīstības pamatnostādnes 2014.-2020.gadam [Guidelines for the development of education 2014-2020]. http://likumi.lv/doc.php?id=266406

[29] Ministru kabinets. (2019). *Prasības vispārējās izglītības iestādēm, lai to īstenotajās izglītības programmās uzņemtu izglītojamos ar speciālām vajadzībām* [Requirements for general education institutions to admit students with special needs in the educational programs they implement]. Ministru kabineta noteikumi Nr. 556. Latvijas Vēstnesis, 240, 28.11.2019. https://likumi.lv/ta/id/310939-prasibas-visparejas-izglitibas-iestadem-lai-to-istenotajas-izglitibas-programmas-uznemtu-izglitojamos-ar-specialam-vajadzibam

- Special schools, which are segregated educational establishments, located all around Latvia. Children with special needs had special programs;
- Special classes in regular schools, which are segregated or integrated solutions. Children with special needs had special programs;
- Regular classes, regular school, which could be either integrative or inclusive solutions. Children with special needs had either a special or regular program.

As special needs is a broad definition, in Latvia it is the role of the State or local government Pedagogical Medical Commission to determine who meets the criteria of special needs and who has to have a special program, special services, extra resources. Special education programs are categorised for children with mental health disorders, intellectual disabilities, severe intellectual disabilities, visual impairment, hearing impairment, physical disabilities, somatic diseases, language disorders and learning disabilities.

Starting from 1 September 2020, in Latvia special basic education programs for learners with physical disabilities, somatic diseases, language disorders and learning disabilities will no longer be implemented in special education institutions, but in the form of inclusive special classes or groups of general education schools, as well as integrating learners in general education classes, additionally addressing individually targeted support provision in the educational process[30]. It will promote integration and inclusion of children with special needs in regular schools.

The latest national policy document, the “National Development Plan of Latvia for 2021-2027”[31] (Latvian National Development Plan for 2021-2027, 2020), which was approved on 2 July 2020 is significant because the indicator “Inclusive educational environment” has been included for the first time in the priority “Knowledge and skills for personal and national growth”

[30] Saeima. (2018). *Grozījumi Vispārējās izglītības likumā* [Amendments in General Education Law]. https://likumi.lv/ta/id/300102-grozijumi-visparejas-izglitibas-likuma

[31] *Latvijas Nacionālais attīstības plāns 2021.- 2027. gadam* [National development plan of Latvia for 2021-2027]. (2020). https://www.pkc.gov.lv/sites/default/files/inline-files/NAP2027_apstiprin%C4%81ts%20Saeim%C4%81.pdf

in the political document of such a level. It was explained as a necessary action to promote the development of a safe and inclusive environment in educational institutions.

Bulgaria

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As a member of the European Union, Bulgaria is committed to working for the development of more inclusive education systems. The Bulgarian government makes necessarily political efforts in this area. As for children with disabilities, only about a half are integrated into mainstream education, and it is estimated that 14,000 children with disabilities are out of school.[32]

The Council Recommendation on the promotion of common values, inclusive education and the European dimension of teaching[33] states that Bulgaria is committed to ensure effective equal access to high-quality inclusive education for all learners, including those from migrant families, those with disadvantaged socio-economic status, special needs and disabilities - in accordance with the Convention on the Rights of Persons with Disabilities. Disability is essential for achieving more cohesive societies (Council of the European Union, 2018).

The National Strategy for Lifelong Learning (NSLLL)[34] has been adopted by the Council of Ministers' Decree No 12 dated January 10, 2014. The strategy sets out the strategic framework of the state policy in education and training during the period, which aims at achieving the European objective for smart, sustainable and inclusive growth.

[32] *Inclusive education and early learning*. https://www.unicef.org/bulgaria/en/inclusive-education-and-early-learning

[33] *Council Recommendation of 22 May 2018 on promoting common values, inclusive education, and the European dimension of teaching (2018/C 195/01).* https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0607(01)&from=EN

[34] *National Strategy for Lifelong Learning for the period 2014 – 2020*. https://epale.ec.europa.eu/en/resource-centre/content/national-strategy-lifelong-learning-period-2014-2020

The Strategy has been elaborated in response to challenges, which, on the one hand, have to do with our country's need to overcome the consequences of the economic and financial crisis in Europe and worldwide, and on the other – to preserve the national identity and cultural diversity in the course of implementation of the cohesion policies.

The Strategy applies the definition of lifelong learning, as used in the Memorandum on Lifelong Learning (2000)[35], namely: "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence".

The document covers all forms of education, training, and learning – formal, non-formal and Informal. It also provides recommendations, which would serve as basis in the preparation of annual plans, based on which progress in the implementation of LLL in Bulgaria would be traced.

The strategy describes the state of the art and the challenges related to lifelong learning in Bulgaria. The implementation of the previous national strategy for LLL for the period 2008-2013 was analysed. The place of Bulgaria with regards to the European headline targets and indicators laid down in the Europe 2020 strategy was described.[36]

The strategy outlines the contents, the forms, the environment and the relationships among all the actors in the LLL process, namely, learners, training providers, the employers, trade organizations, labour unions, civil society organizations, the regions, municipalities, and local communities, government bodies and other partners.

The objectives of the Strategy are linked with the objectives of the national policy for development by 2020, i.e., high level of skills, opportunities for innovations, adaptability to the changes in the character of work, and full social inclusion. The Strategy was developed as an integrated strategic document covering all sectors of education and training from pre-school education via school general education and vocational education and training to higher

[35] Commission of the European Communities. (2000). *A Memorandum on Lifelong Learning.* https://arhiv.acs.si/dokumenti/Memorandum_on_Lifelong_Learning.pdf

[36] *Basic strategic documents in the field of education and training in the Republic of Bulgaria (2014 - 2020).* https://eacea.ec.europa.eu/national-policies/eurydice/bulgaria/bibliography_en

education, continuous education and training, and validation and recognition of non-formal and informal learning.

The vision states that as of 2020 Bulgaria would be a country, where conditions have been created for full creative and professional success of the person and where the access to various and quality forms of lifelong learning has become a reality for all its citizens.

The following priorities for the development are laid down in the strategy:

- Educational approach and innovations in education and training supporting the development of all learners and contributing towards development of thinking, capable, and proactive individuals able to handle changes and uncertainty;
- Raising the quality of education and training in the following directions:
- Acquisition of basic skills, which would evolve into permanently attained competences such as competences in the mother tongue to achieve functional literacy, literacy in the area of mathematics and natural sciences, technological and digital literacy, as well as foreign language communication skills;
- Raising the quality of teaching; improving institutional governance;
- Higher quality of training at the institutional level;
- Improving the system for financing education and training.
- Ensuring the educational environment for equal access to lifelong learning and for active social inclusion and active citizenship.
- Promoting education and training aligned to the needs of the economy and changes in the labour market.

Another important document is the National strategy for the development of the pedagogical staff (2014 - 2020)[37]. The Strategy covers the system for preparation and continuous qualification of the pedagogical staff, the basic professional and social-demographic features of the pedagogical staff for the period 2007-2013, and career development of the pedagogical staff. Expenditure for education and training of the pedagogical staff is analysed, too.

[37] *National strategy for the development of pedagogical staff (2014 - 2020).* www.strategy.bg/FileHandler.ashx?fileId=4627

An overview of European policies for the development of teacher's profession is made in the Strategy, including teachers' training, support for young pedagogical staff members, recruitment, employers, labour contracts, continuous professional development and mobility of teachers. The need for a national strategy on the development of the pedagogical staff is analysed, too. The vision, principles, objectives and expected results from such a strategy are defined. Issues related to the coverage, administration and financing the system are pointed out.

The strategy is in line with the requirements and the priority fields of action of the national Programme for the development of the Republic of Bulgaria called "Bulgaria 2020"[38] aimed to raise the living standard through competitive education and training, establishing conditions for quality employment, social inclusion and guaranteed accessible and quality education. The strategy is oriented towards the implementation of policies and measures for comprehensive, accessible and quality school and pre-school education. It synchronizes the policies for teachers and trainers' education, continuous qualification and career development in connection to the legislative, institutional and social base of the education system.

The Strategy foresees the following measures:

- Building-up a unified system for education and continuous teachers' qualification;
- Legislative guarantees of teachers' rights and obligations in terms of professional development;
- Establishment of better conditions for teachers' professional and career development;
- Financial and information provision of the education system;
- Adaptive structures for governance of secondary education;
- Equity and competitiveness of institutions providing qualification of the pedagogical staff;
- Achieving higher social and economic status of the pedagogical staff.

[38] *National development programme: Bulgaria 2020. (NDP BG2020)*. https://en.unesco.org/creativity/policy-monitoring-platform/national-development-programme

Another important document is the Strategy on Reducing the Share of Early School Leavers (ESL) 2013-2020[39] which is aligned with the objective of the strategic framework of Bulgaria 2020. The Strategy is fully in line with the Council Recommendation dated June 28, 2011 concerning the policies for reducing ESL (2011/C 191/01)[40], as well as with the strategic framework for the European cooperation in education and training. Bulgaria 2020 is the national programme for the development of the Republic of Bulgaria. It is aimed to improve the standard of life through competitive education and training, establishment of conditions for quality employment and social inclusion, and guaranteeing quality and accessible health care. Bulgaria 2020 is adopted by the Council of development of the Council of Ministers in 2011.

The Strategy is oriented towards the implementation of policies and measures aimed at meeting the target of a share of ESL less than 11%. The same target is set in the National Reform Programme of the Republic of Bulgaria (2012-2020)[41], national target No 4.

The following key measures are laid down in the Strategy:

I. Preventive measures

- Provision of a positive educational environment – school environment, relationships, governance;
- Raising the quality of education as a prerequisite for personal development of every child and student and prevention of ESL;
- Provision of an access to education for children and students of vulnerable ethnical groups;
- Access to quality education for children and students with special educational needs;

[39] *Strategy for reducing the share of early school leavers (2013 – 2020).* https://eacea.ec.europa.eu/national-policies/eurydice/bulgaria/bibliography_en

[40] *Council Recommendation of 28 June 2011 on policies to reduce early school leaving (Text with EEA relevance) (2011/C 191/01)*. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:191:0001:0006:en:PDF

[41] *National reform programme of the Republic of Bulgaria (2012-2020).* https://ec.europa.eu/info/sites/info/files/2019-european-semester-national-reform-programme-bulgaria_en.pdf

II. Integration measures

- Increasing parents' participation and engagement;
- Affirmation of individual and group mentoring;
- Provision of career guidance and consulting services;
- Development of models for acquisition of a vocational qualification;
- Support for children and students' development;
- Implementation of early alert system;
- Development of interest-based activities;
- Support of students at risk of ESL due to financial issues;

III. ESL Compensatory Measures

- Creation of suitable conditions for re-integration of ESL back within the education and training system;
- Building up of a national system for validation of competencies acquired through non-formal and/or informal learning.

Belgium (Flanders)

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The current status of inclusive education

The M-decree[42] (Decree of March 21, 2014 concerning measures for pupils with specific educational needs) indicates how Flemish schools must deal with pupils who, due to a disability, cannot simply attend classes in an ordinary school.

Inclusive education is now the first option. The aim is to have more pupils in mainstream schools and thus to refer fewer pupils to schools for special education.

[42] M-decreet. (2014). https://onderwijs.vlaanderen.be/nl/grote-lijnen-van-het-m-decreet

A school builds a care continuum and, together with the teacher or teachers, the parents and the CLB (the CLB -Centrum voor leerlingenbegeleiding/Centre for student guidance is a service that pupils, parents, teachers, and school boards can use for information, advice, and guidance; a CLB includes doctors, social workers, pedagogues, psychologists, psychological assistants and nurses), checks which reasonable adjustments or measures a pupil with specific educational needs, should have to be able to follow the lessons.

A pupil with specific educational needs, therefore, has the right to enrol in an ordinary school. He can:

- Follow the common curriculum (if it meets the admission requirements for mainstream education and has a motivated report);
- Follow an individually adapted curriculum (if he has a report for access to special education);
- The M-decree also includes peer support from teachers and paramedical staff from special education. Support is also offered in other ways.

First aid for a learning problem or backlog

Children can experience difficulties when learning. An estimated 1 in 5 young people in Flanders have learning disabilities or a learning problem.

Learning problems have various causes:

- Problems at home;
- Low self-esteem;
- Wrong learning method;
- Stubborn read, write or math problems;
- Attention problems;
- Problems with the working posture;
- Learning disabilities.

In primary and secondary education the first concern lies in the hands of the school itself. A conversation with the class teacher or the subject teacher is an important first step to tackle a learning problem. That teacher can consult with other colleagues, such as a care coordinator, pupil counsellor, degree coordinator, or the director.

Most schools have student counsellors: teachers who help students with problems. In some schools there are also trust students.

In many cases the school will be able to help itself. If this is not the case, it can refer you to the pupil guidance centre (CLB).

Sometimes more specialized help is needed, therefore the CLB works together with other services, such as centres for the treatment of learning disabilities, rehabilitation centres, or mental health centres.

Care continuum

The M-decree states that it is the task of the school to develop a care continuum. It is the care policy in which the school goes through 3 phases in order to provide pupils with the CLB and parents as well as possible:

- Phase 0: broad basic care. From the vision of care, the school offers all pupils a powerful learning environment. The school stimulates the development of all pupils as much as possible, follows them systematically, and actively works on the reduction of risk factors and the strengthening of protective factors.
- Phase 1: increased care. The school takes extra measures to ensure that the pupil can continue to follow the common curriculum (such as remedying, differentiating, compensating, and dispensing).
- Phase 2: expansion of care. The CLB takes an active role and examines what the pupil, the teachers, and the parents can do and what they need. The CLB may subsequently draw up a motivated report in which it substantiates the need for the expansion of care. Then the school can use support from the support network or a school for special education. If phases 0 to 2 have been completed and if following the common curriculum with reasonable adjustments is not feasible, the CLB can draw up a report for access to special education or an individually adapted curriculum in mainstream education.
- Phase 3: individually adapted curriculum (IAC). The CLB draws up a report for the access to special education or an IAC in mainstream education. The IAC phase can take shape in both ordinary and special education.

A pupil with a report can follow an IAC in a school for ordinary education or can enrol in a school for special education. This depends on the choice of the parents and the pupil and the reasonable adjustments that are possible in an ordinary school.

The CLB investigates the possibilities together with the parents, the pupil, and the school.

If the student follows an IAC in a school for mainstream education, the school can request support from the support network or a school for special education.

Action-oriented working

Developing a care continuum also means that the teacher and the school work in an action-oriented way (HGW). In this way people strive for quality education and effective pupil guidance.

HGW has 7 starting points:

- The educational needs of the pupil are central. The teacher must ask himself what the pupil needs to achieve goals.
- Coordination and interaction between pupils, teachers, parents and the school improves the approach.
- The teacher plays an important role in the positive development of the pupil.
- The focus is on the positive aspects of pupils, teachers, the school, and parents. That takes the teacher along in the plan of the approach.
- Collaboration with pupils, teachers, the school, and parents is necessary.
- The teacher formulates goals and looks at what is needed to achieve those goals.
- The teacher works systematically, in steps, and transparently.

Reasonable adjustments

Making reasonable adjustments is also a task of the school according to the M-decree. A form of reasonable adjustment is the so-called STICORDI measures. STICORDI (stimuleren, compenseren, remediëren, differentiëren, dispenseren) is an acronym for:

- encourage: encouraging pupils and emphasizing the child's strengths;
- compensate: allow devices such as a laptop;
- remediate: helping pupils individually;

- differentiate: subject matter and lesson approach vary;
- dispense: allow exemptions from parts of the curriculum.

STICORDI measures are various measures that support children with disabilities to avoid learning disadvantages. Dyslexia can then, for example, be compensated by using a laptop with reading software.

A reasonable adjustment removes the barriers faced by pupils with specific educational needs in a normal school environment. This way, these pupils can follow the lessons and develop optimally.

This is in line with the principle of Universal Design for Learning (UDL): offering the subject matter in a way that is accessible to a diverse pupil population by varying, for example, materials, methods, and evaluation.

When assessing the reasonableness of the adaptation, the school can take into account:

- The cost of the adjustment;
- The impact that the adjustment has on the school and classroom organization;
- How long and how often the pupil can use the adjustment;
- The consequences of the adjustment for the quality of life of the pupil;
- The consequences of the adaptation for the environment and other pupils;
- Whether or not there are no equivalent alternatives.

Mainstream or special education?

A pupil with a disability can enrol in an ordinary school, with or without a report for access to special education.

Pupil does not have a report for access to special education

If the pupil, possibly with extra care, can join the common curriculum, he will remain in mainstream education. For the extra care a motivated report from the CLB is required.

If the educational needs of the pupil change to such an extent that the common curriculum is no longer feasible for him, the CLB can draw up a report for access to special education.

Pupil has a report for access to special education

If the pupil has a report for access to special education, then there are two options: mainstream or special education.

The parents register their children in an ordinary school.

The pupil receives an individually adapted curriculum, with support. In that case, the pupil does not have to meet the same goals as the fellow pupils. In secondary education the pupil makes study progress year after year via a certificate of acquired competences.

The school, after the consultation with parents and the CLB, decides that the adjustments needed to have a pupil follow an individually adapted curriculum are unreasonable. The school dissolves the registration. The pupil then searches, possibly with the help of the local consultation platform (lokaal overlegplatform - LOP), for another regular school. The pupil can also go to special education.

The school, the parents, or the CLB think that the pupil with a report for access to special education can follow the common curriculum in an ordinary school. Then the CLB can, if agreed, cancel the report. The pupil is then fully entitled to a registration in an ordinary school.

The pupil goes to special education.

The type (and the training form) are mentioned in the report.

Admission requirements for special education

Only with a report can a pupil go to special education. The CLB first checks whether the regular school took all possible measures before referring a pupil to a special education school. Referring based on the social background only is not possible.

Pupils who have already attended special education before the school year 2015-2016 may continue with their 'old' enrolment report in their type or form of education until they have terminated the level of education in which they were enrolled.

New types of special education

Since the 2015-2016 school year, there are new definitions for some types in special education.

- Type 1 (pupils with a mild intellectual disability), type 8 (pupils with serious learning disabilities), and type 3 (type 1 in special secondary education) are gradually being phased out and transformed into the new type of basic offer. Pupils from that new type can, after a positive evaluation of the school and the CLB, return to regular education over time.
- There is a new type 9 for children with autism who have no intellectual disability and despite support cannot go to mainstream education.

In September 2015 the M-decree came into effect. The purpose of the decree is to make the Flemish education system more inclusive by:

- Holding more pupils in mainstream education and allowing fewer pupils to move on to special education.
- To include more pupils in special education in mainstream education.

A teacher does not have to become a specialist in the knowledge of learning disabilities or limitations, but must have or obtain several necessary basic competences:

- Assessing the needs of pupils;
- Determine objectives;
- Ensure reasonable adjustments, such as differentiating, remedying, compensating and taking dispensing measures;
- The right to reasonable accommodation is the biggest change in ordinary education. Whether a pupil can start at a school depends on the adjustments that are needed, and whether the school considers these adjustments to be reasonable. Reasonable adjustments include the use of laptops and calculators in the lesson or allow more time to complete a test.

The aim is for teachers to:

- think more closely with the teacher's team about adjustments such as remediation, differentiation, the use of tools, and a more tailor-made curriculum;
- consult more with pupils with specific educational needs and with their parents;

- work more closely with the CLB and other supporters.

Together with others the teacher should look for adjustments that make the provision of quality education reasonable for all pupils and in particular for pupils with special educational needs.

Target audience

Target group for the 2017-2018 school year are schools that have not yet participated in the program in school years 2015-2016 and 2016-2017 and more specifically:

- Teachers;
- Management;
- Internal supervisors: middle management, managers of departments, care coordinators, training coordinators;
- External supervisors: pedagogical supervisors, teacher trainers;
- Supporters within the support model M-decree.

In order to permanently embed the acquired insights, the participation of supervisors is advisable. They can further support the school teams after the project has ended.

The participants will strengthen their mastery in didactics, pedagogy, and action-oriented collaboration:

- broaden and deepen basic competencies as a teacher, so that the teacher can work more inclusively in the team and meet the specific educational needs of pupils;
- receive support in the team to work together on competency development aimed at the maximum development of all pupils and in particular pupils with special educational needs.

Overview of selected projects

The Flemish Government has not yet definitively approved the regulatory framework for the projects. The projects can only start after that has happened.

The below table provides:

- An extensive project description;
- The contact details of the organizer;
- The way how to candidate;

- Place and date.

Title of project (Name of organization)

M-decreet: motor, motivatie en mogelijkheden[43] (Arteveldehogeschool)

V-eSperAnZa (Verbind Samenwerken Aan geïntegreerde Zorg, een hoopvol perspectief[44] (Vzw Nascholing in het katholiek onderwijs)

Expeditie M: een onderzoekstocht naar duurzame integratie van inclusief handelen en denken[45] (AVSG vzw)

Het M-decreet als motor van uitmuntend onderwijs[46] (Steunpunt Diversiteit en Leren (UGent))

KITS: krachtige indicatoren voor een toegankelijke school[47] (UC Leuven vzw)

Current challenges and future directions

Inclusive education is not very easy to implement in the field. In addition to that new regulations and implementations bring their challenges. M-Decree is another level of the inclusive education in Belgium. So, its challenges also mainly come from inexperience.

In Flanders, the school usually takes the time to decide whether the teacher agrees to accept the child as a member of the class. Children with a disability are often considered to be the

[43] M-decreet: motor, motivatie en mogelijkheden. https://onderwijs.vlaanderen.be/sites/default/files/atoms/files/2017_06_01_Motor_Motivatie_Mogelijkheden_Artevelde.pdf

[44] V-eSperAnZa (Verbind Samenwerken Aan geïntegreerde Zorg, een hoopvol perspectief. https://onderwijs.vlaanderen.be/sites/default/files/atoms/files/2017_06-08-Vesperanza_KOV.pdf

[45] Expeditie M: een onderzoekstocht naar duurzame integratie van inclusief handelen en denken. https://onderwijs.vlaanderen.be/sites/default/files/atoms/files/2017_06_01_Expeditie-M_OVSG.docx

[46] Het M-decreet als motor van uitmuntend onderwijs. https://onderwijs.vlaanderen.be/sites/default/files/atoms/files/2016_06_01_Motor_uitmuntend_onderwijs_SDL.docx

[47] KITS: krachtige indicatoren voor een toegankelijke school. https://onderwijs.vlaanderen.be/sites/default/files/atoms/files/KITS%20Fiche%202017-2018.docx

exception: regular education is not the place for them to be taught. The practice of exclusion to a more specialized context is embedded in the educational system and represents a common way of thinking.

The disabled child is seen as another category, different from the 'average' pupil. This way of looking at children with special needs in the school context is closely associated with the kind of questions raised about the nature of the difference in the child.

Uncertainties arise because not everything is known. Besides, teachers have doubts about their competency because they feel they have no expertise in the deficit (s) (and the medical complications) of the child. They feel insecure about not knowing enough or not knowing how to act.

M-decree replacement

Flanders is generally the best-organized region in Belgium concerning services for pupils that face challenges towards education. These children can rely on Pupil Guidance Centres (Centrum voor Leerlingenbegeleiding - CLB).

Flanders is currently the leader in the number of pupils that go to special education schools. But as mentioned before since 2008 Flanders has created a new legal framework that aims to include pupils with disabilities in mainstream education, when possible with reasonable adaptations.

- Decree for Flemish equal chances and equal treat policy (2008)[48];
- Government agrees with the UN-Convention on the Rights of Persons with Disabilities (2006)[49];
- M-decree (2014)[50].

[48] Decree for Flemish equal chances and equal treat policy. (2008). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM%3A264976

[49] United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html

[50] M-decreet. (2014). https://onderwijs.vlaanderen.be/nl/grote-lijnen-van-het-m-decreet

Inclusive education in Flanders is defined by the M-decree of 12 March 2014 (M stands for measures for pupils with special educational needs) and aims to invest more into broad baseline care, take appropriate measures and make reasonable adaptations. This is to result in concrete changes in special and mainstream education. In short, education needs to take reasonable measures to keep children as much as possible in the mainstream schools.

Preparations started in January 2015 and have been applied since the 1st of September 2015. However, it must be mentioned that this created other problems, especially because teachers but also CLBs are ill-prepared. The UN Convention on the Rights of Persons with Disabilities makes it very clear that the (continued) existence of special education is contrary to the principles of this Convention. Hence also the M-decree. Unfortunately, this pressure on the progressive dismantling of special education has ensured that a "right of parents to have their children follow lessons in mainstream education (if possible)" has evolved to “a parents' duty to do so, except when it goes wrong”. That is not the attitude or starting point but is the result of agreeing with the UN convention.

Due to the many problems with the M-decree, it will remain in force until September 1, 2021. In the meantime, a new regulation is being prepared: “Towards a guidance decree for pupils with special educational needs”[51].

Replacing M-decree with new Guidance decree

The Flemish Government wants to replace the M-decree for pupils with special educational needs with a new guidance decree. This is stated in the Flemish coalition agreement 2019-2024.

The current model for supporting pupils with special educational needs in mainstream education will remain in force until the 2020-2021 school year. In the meantime, a new support model is being prepared that will enter into force from 1 September 2021 at the earliest.

[51] Naar een begeleidingsdecreet voor leerlingen met specifieke onderwijsbehoeften. https://onderwijs.vlaanderen.be/nl/naar-een-begeleidingsdecreet-voor-leerlingen-met-specifieke-onderwijsbehoeften

The Flemish minister of education Ben Weyts[52] has clarified the objectives in the memorandum to the Flemish Government. He also provides many principles, which at the same time form the outlines for drawing up the new guidance decree and the final support model.

Continue to focus on inclusive education

The Flemish Government remains behind the principle of inclusion but wants to work step by step. It fills in the goals pragmatically and realistically, for it is crucial to create sufficient public support and pedagogical guidance.

With the guidance decree, the government does not want to take any steps back but wants to continue to build support for a more gradual realization of inclusive education.

The aim of the new decree is not less, but more social inclusion:

- Keep as many pupils as possible through mainstream education in the best possible education and therefore no longer refer pupils to special education.
- Refer fewer tutors to external services for tutoring.

The basic care aimed at creating learning gains at school is being elaborated further. To this end, the Flemish government seeks inspiration from foreign models and examples, such as "response to instruction" (RTI).

In the RTI model, the care needs of the pupil are attuned and an attempt is made to ensure that as many pupils as possible connect with the general learning objectives through the increasing intensity of remediation. This is achieved through permanent screening, intervention, and monitoring in the classroom or a task class. It is checked whether the capacity of school teams is not exceeded and whether the involved pupils achieve sufficient learning gains.

[52] Naar een begeleidingsdecreet voor leerlingen met specifieke onderwijsbehoeften. https://onderwijs.vlaanderen.be/nl/naar-een-begeleidingsdecreet-voor-leerlingen-met-specifieke-onderwijsbehoeften

The evolution towards inclusive education will have to proceed step by step and at a feasible pace. Special education also retains a fully-fledged place and is qualitatively strengthened where necessary.

Current support model up to and including school year 2020-2021

Pupils who are already entitled to support today will continue to receive it. Supporters continue to take up their duties as supporters.

The current working method of the support model will continue in the 2020-2021 school year. Based on an evaluation, a definitive support model is now being prepared.

Guidance Decree at the earliest from the school year 2021-2022

A new guidance decree is being prepared in school years 2019-2020 and 2020-2021. A definitive support model will be part of that.

Cross-network cooperation will be an important starting point. Support should be fast and efficient, close to the pupil and the teacher.

A new guidance decree will start at the earliest in the school year 2021-2022. Sufficient time is allocated for preparation and consultation. The Minister of Education, for example, wants to avoid the hasty introduction of a new regulatory framework.

Cyprus

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The case of Cyprus - Legislation and policy

Cyprus became an independent republic on the 16th of August 1960, having been a British colony since 1878.[53] Consequently, the British education system regarding special needs was applied in Cyprus. The British educational legislation of 1870 suggested the "establishment of special classes for learners with physical and intellectual disabilities, as well as for learners with behavioural problems".[54] In 1929, the School for the Blinds was the first special education school established in the island, with the School for the Deaf being opened in 1953. In 1944, "compulsory education for learners with disabilities and learners with special needs, and for learners who had spent a long-time receiving treatment in hospitals" was introduced. Since 1970, it has been compulsory for every child to attend school.[55]

In 1979, the state took responsibility for establishing special schools for learners between the ages of 5 and 18. By this law, regional multi-disciplinary committees were formed to review the cases of individual learners referred to special education and recommend the most suitable educational placement for each learner (1979: Law 47/1979 – Education of Children with Special Needs in Special Schools & Classes).[56] In the 1980s, there was a trend towards the inclusion of learners with special needs in mainstream schools. In 1993, the Law 24(I)/1993 and its respective amendment provides free and compulsory education at primary and secondary level. Parents or guardians of children, who fail to register and send them to school during the specified period, are subject to a penalty.[57] The practice of inclusion had no

[53] History of Cyprus since 1878. https://en.wikipedia.org/wiki/History_of_Cyprus_since_1878

[54] European Agency Cyprus. *System of Support and Special Education provision.* https://www.european-agency.org/country-information/cyprus/systems-of-support-and-specialist-provision

[55] European Agency Cyprus. *System of Support and Special Education provision*. https://www.european-agency.org/country-information/cyprus/systems-of-support-and-specialist-provision

[56] European Agency Cyprus. (1979). *The Special Education Law (N.47/1979).*

[57] Cyprus. (1993). *The Compulsory and Free Education at Elementary and Gymnasium Level Law.* http://www.cylaw.org/nomoi/arith/1993_1_024.pdf

legislative foundation in Cyprus until the establishment of the Law for the Education and Training of Children with Special Needs 113(I) of 1999.[58]

Law for the Education and Training of Children with Special Needs 113(I) 1999

The policy regarding the inclusion of learners with special needs in mainstream education is expressed within the Law for the Education and Training of Children with Special Needs 113(I) of 1999 (Special Education Law 113(I)/1999), the Regulations for the Early Detection of Children with Special Needs 185(I)/2001[59] and the Regulations for the Training and Education of Children with Special Needs 186(I)/2001. The two latter regulate the implementation of the law as from September 2001.

The Special Education Law 113(I)/1999 is the legislative framework which regulates: the early detection of children with special educational needs (SEN); their assessment and the development of an individual education plan; their placement in the most appropriate educational setting with provision of both teachers and educational resources to meet their needs and the ongoing evaluation of the child's progress.

According to the law, a child is considered to have a special educational need (SEN) if they have significantly greater difficulty in learning compared to the majority of children of a similar age, or if a disability prevents or creates obstacles to them from using the standard educational facilities and resources available in mainstream schools.

Through the core articles of the law, the state undertakes the early detection of children with special needs from the age of three. It conducts a full multi-disciplinary assessment and aims

[58] Cyprus. (1999). *The 1999 Education Act for Children with Special Needs (N. 113(I)/1999).* http://www.cylaw.org/nomoi/enop/non-ind/1999_1_113/full.html

[59] Cyprus. (2001). *The Early Detection of Children with Special Needs Regulations (N. 185(I)/2001).* http://www.moec.gov.cy/eidiki_ekpaidefsi/nomothesia/peri_mihanismou_kanonismoi_2001_185_2001.pdf

to provide all the necessary measures in terms of curriculum adaptation, technical and staff support for the children's effective education, within a mainstream setting.

The state provides free special educational services between the ages of 3 and 18 to learners who need them (if deemed necessary, education may be extended up to the age of 21).

Learners with special needs should be educated in public schools, which are equipped with suitable infrastructure, according to the Special Education Law. Indeed, most learners with SEN are educated within mainstream classrooms, however, special educational provision may also be given in special units within mainstream schools. Learners participating in the special units are assigned to a mainstream class, in which they attend inclusive lessons and participate in selective events.

Although the state provides learners the "opportunity" to enrol in mainstream education, there are certain factors that prohibit those learners from being fully included. Angelides et al (2004) noted that "the most important factor that acted as barrier to the implementation of an inclusive education in pre-primary schools is the children themselves, their views together with the emotions they bring and their relationships, and they should be taken into account when design trainings for teachers".[60]

On the other hand, learners with severe difficulties are educated in special schools. These are equipped with the appropriate staff (psychologists, speech therapists, physiotherapists, and other specialists, as well as auxiliary staff) to support and provide essential means to learners to achieve their mission. In case there is a learner with special needs who cannot attend school for a long period, due to health or other problems, education may be provided in places other than public or special schools, i.e. at home or in hospitals.

[60] Angelides, P., Charalambous, C., & Vrasidas, C. (2004). Reflections on policy and practice of inclusive education in pre-primary schools in Cyprus. *European Journal Of Special Needs Education*, *19*(2), 211-223. https://doi.org/10.1080/0885625041000167849 6

Special Educational Provision

Special educational provision can take place in any of the state school educational levels. Hence, pre-primary institutions, primary schools, gymnasia (lower-secondary schools), lyceum (upper-secondary schools) and technical schools must provide adaptations and facilities for learners with special needs.

In secondary education, pupils with specific learning difficulties are enrolled in support programmes, following a decision by the District Committee. Learners are offered educational support individually or in groups, according to their needs.

Special educational support is usually provided for subjects that learners are examined in at the end of the school year (Modern Greek, history, physics, and mathematics). Learners are exempted, for provision of educational support, from lessons that they cannot attend due to their disability (e.g. ancient Greek and/or a second foreign language). Learners with specific sensory disabilities receive specialized assistance from the special schools.

Special units provide more intensive special education to a small number of learners (usually up to six), while maintaining contact and inclusion with a specific reference class in the school. If none of these adaptations suit the learner's needs, they may attend a special school.

Currently, there are six regional special schools for learners with severe learning difficulties: a school for learners with emotional and behavioural difficulties; a school for learners with visual impairments; a school for learners with hearing impairments among others. The latter two schools provide services to learners with visual or hearing impairments who are included in mainstream schools and to adults requiring specialist assistance or guidance. Specialist educators are also provided to non-governmental institutions offering specialist services to distinct groups of learners, e.g., those with multiple or severe physical disabilities. Services are also provided to learners who are in hospital for a significant period of time or who, for medical or other reasons, must be educated at home.

The current status of inclusive education in partner countries

Introduction

Contributors: Dita Nimante (University of Latvia, Latvia) and Karel Van Isacker (PhoenixKM, Belgium)

The Salamanca Statement affirmed that every child has unique characteristics, interests, abilities and learning needs, and diversity is a characteristic of every human being. Regular schools with inclusive orientation in the Salamanca Statement are considered as the "most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society"[61]. Inclusive education is closely related to the human right movement and values of a democratic society. Inclusive education by all means helps to overcome the existing barriers to learning and development of every child.[62]

Inclusive education is a global phenomenon, the United Nations (UN) and UNESCO are two most important promoters of inclusive education to all member states. The principles of equality and inclusive education during last 30-40 years have been integrated into the political documents and legislation of many countries around the world. The inclusive education ideas have been included in academic research as well as in social and economic policy, both nationally and internationally. There has been rapid development of both political and scientific routes of inclusive education. However, inclusive education does not work in a vacuum or in isolation from other factors that have a bearing on society. Some progress has been made, countries around the world still face the challenges at different levels. Legislation, political will is important and very necessary, it is considered to be an important factor for promoting inclusive education on the systematic level, but it will never be enough, as inclusion and equity do not work imposed from the above. The current state of progress towards inclusive education is regularly reported by countries to UNESCO. The UNESCO have been gathering

[61] UNESCO. (1994). The Salamanca statement and framework for action on special needs education. Paris: UNESCO. Page 8.

[62] Booth, T. and Ainscow, M. (2002). The index for inclusion. Bristol: Centre for Studies in Inclusive Education.

information from various countries around the world, analysing it and compiling reports on the current situation. The last of such reports is produced in 2020: UNESCO report "Global education monitoring report, 2020: Inclusion and education: all means all"[63]. As it is stated in the report "there are dilemmas and tensions involved in reaching the ideal of full inclusion"[64][4]: There are several problems identified:

- Identity, background and ability dictate education opportunities.
- Discrimination, stereotyping and stigmatization mechanisms are similar for all learners at risk of exclusion.
- Despite progress, many countries still do not collect, report or use data on those left behind.
- Millions are missing out on the opportunity to learn.
- A key barrier to inclusion in education is the lack of belief that it is possible and desirable.
- While some countries are transitioning towards inclusion, segregation is still prevalent.
- Financing needs to target those most in need.
- Teachers, teaching materials and learning environments often ignore the benefits of embracing diversity.

Latvia

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The conceptual understanding of inclusive education in Latvia is very closely linked to UNESCO broader concept of inclusive education. Inclusive education systems work to identify and remove barriers to access, participation and success of all learners to education by

[63] UNESCO. (2020). *Global education monitoring report, 2020: Inclusion and education: All means all.* Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000373718

[64] UNESCO. (2020). *Global education monitoring report, 2020: Inclusion and education: all means all.* Paris: France. Page 5. https://unesdoc.unesco.org/ark:/48223/pf0000373718

ensuring inclusive education in practice and providing qualitative learning for all diverse learners. The education system of Latvia has gradually since 2010 developed policy documents and plans, and instituted mandatory requirements as a way to turn legislature into practice to insure inclusive education in Latvia[65].

However, every country has its own unique and individual context for inclusive education. There are target populations and certain directions of inclusive education relevant in today's Latvia: (1) promotion of inclusive schools, inclusive pedagogy for all learners, (2) including children with special needs in general education, (3) providing necessary support for children who have re-emigrated or children with immigration experience, (4) providing education for all children by including in the education system those who are outside the education system.

As a result of the education reform (competencies based education) in Latvia, it is acceptable that a general education institution plans flexibly the content of learning and organizes the learning process according to the needs of pupils and taking into account their abilities. Schools and teachers are allowed to organize learning activities flexibly and according to the child's needs, including more flexibility in assessing learning performance than before. There are inclusion orientated requirements for schools regarding the learning environment: an inclusive, intellectually and socially emotional development, physically and emotionally safe learning environment according to the age of pupils and the peculiarities of their development.[66] So, one can conclude that there are the necessary requirements in place in legislation for implementing inclusive pedagogy and inclusive and friendly, safe inclusive school environment for everybody.

[65] Prudņikova, I., & Bruveris, I. (2015). Inclusion, legislation and practice: educating students with disabilities – the Australian and Latvian experiences. *SOCIETY. INTEGRATION. EDUCATION*. Proceedings of the International Scientific Conference. Special Pedagogy. 3 (pp. 193-204).

[66] Beizītere, I., Grumolte-Lerhe, I., Ziemane, I., & Valtenbergs, V. (2020). *Iekļaujošā izglītība bērniem ar speciālām vajadzībām Latvijā* [Inclusive education for children with special needs in Latvia]. Latvijas Republikas Saeima. https://www.saeima.lv/petijumi/Ieklaujosa_izglitiba_berniem_spec_vajadzibam_Latvija.pdf

There are many opportunities for children with special needs and learning difficulties to receive the necessary support in regular schools. Financial[67] and additional resources (for example, assistants, special education teachers, etc.) for pupils with special needs are provided.

New regulations of the Council of Ministers[68] will come into force from 1st of September 2020. It is stated in the regulation:

- There is a possibility to receive support measures also for children who do not have the statement of the state or local government Pedagogical Medical Commissions, but who have development or learning difficulties; those difficulties can be stated by the support specialists of the educational institution (educational or clinical psychologist, speech therapist, teacher speech therapist or special pedagogue), the necessary support can be organized based on their statement.
- Each educational institution must develop an individual learning plan for the children who have special needs, the plan should be periodically reviewed.
- An expanded and detailed set of support measures is provided that the educational institution must provide in accordance with the statement of the child's special needs.

During last years more and more children with special needs are integrated or included in regular schools. Consequently, there are less children with special needs remaining in special

[67] Grozījumi Ministru kabineta 2016. gada 5. jūlija noteikumos Nr. 447 "Par valsts budžeta mērķdotāciju pedagogu darba samaksai pašvaldību vispārējās izglītības iestādēs un valsts augstskolu vispārējās vidējās izglītības iestādēs" [Amendments to Cabinet Regulation No. of 5 July 2016 447 "On the State Budget Targeted Grant for the Salary of Teachers in Municipal General Education Institutions and General Secondary Education Institutions of State Higher Education Institutions] (2018). Latvijas Vēstnesis, 163, 17.08.2018. https://likumi.lv/ta/id/301070-grozijumi-ministru-kabineta-2016-gada-5-julija-noteikumos-nr-447-par-valsts-budzeta-merkdotaciju-pedagogu-darba-samaksai-pasval...

[68] Prasības vispārējās izglītības iestādēm, lai to īstenotajās izglītības programmās uzņemtu izglītojamos ar speciālām vajadzībām [Requirements for general education institutions to admit students with special needs in the educational programs they implement] (2019). Ministru kabinets. Ministru kabineta noteikumi Nr. 556. Latvijas Vēstnesis, 240, 28.11.2019. https://likumi.lv/ta/id/310939-prasibas-visparejas-izglitibas-iestadem-lai-to-istenotajas-izglitibas-programmas-uznemtu-izglitojamos-ar-specialam-vajadzibam

schools.[69] Nevertheless, in the school year 2018/2019 most of the children with special needs (41% of the total number) received education in special education institutions, acquiring a special program corresponding to the type of disorder, and 13% of children with special needs acquired the general education program together with other students in general education schools[70]. In the coming years, the education system must be ready to provide adequate support in general education institutions to a sufficient number of children with special needs. The major challenge would be to provide inclusion for children with special needs in all aspects of school life.

According to the Central Statistical Bureau[71] of Latvia since 1990, as the result of migration, the population of Latvia has reduced by almost half a million (457 thousand). Due to international long-term migration the number of population in 2010-2018 dropped by 126.1 thousand. In 2018, 10.9 thousand persons arrived in Latvia for permanent stay (period of time equal to one year or more) (9.1 % more than in 2017), while 15.8 thousand persons left – 12.1 % less than in the previous year. To support re-emigrated children and children who had immigration experience in the education system there are regulations developed envisaging that local governments should be able to redistribute the state budget earmarked grant to support educational institutions for the education of re-emigrated and immigrant children.[72] Extra consultations for children who experience difficulties are provided.

[69] Beizītere, I., Grumolte-Lerhe, I., Ziemane, I., & Valtenbergs, V. (2020). *Iekļaujošā izglītība bērniem ar speciālām vajadzībām Latvijā* [Inclusive education for children with special needs in Latvia]. Latvijas Republikas Saeima. https://www.saeima.lv/petijumi/Ieklaujosa_izglitiba_berniem_spec_vajadzibam_Latvija.pdf

[70] Beizītere, I., Grumolte-Lerhe, I., Ziemane, I., & Valtenbergs, V. (2020). *Iekļaujošā izglītība bērniem ar speciālām vajadzībām Latvijā [Inclusive education for children with special needs in Latvia]. Latvijas Republikas Saeima.* https://www.saeima.lv/petijumi/Ieklaujosa_izglitiba_berniem_spec_vajadzibam_Latvija.pdf

[71] Central Statistical Bureau. (n.d.). *Immigration, emmigration and net migration*. https://www.csb.gov.lv/en/statistics/statistics-by-theme/population/migration/key-indicator/immigration-emmigration-and-net-migration

[72] Grozījumi Ministru kabineta 2016. gada 5. jūlija noteikumos Nr. 447 "Par valsts budžeta mērķdotāciju pedagogu darba samaksai pašvaldību vispārējās izglītības iestādēs un valsts augstskolu vispārējās vidējās izglītības iestādēs" [Amendments to Cabinet Regulation No. of 5 July 2016 447 "On the State Budget Targeted Grant for the Salary of Teachers in Municipal General Education Institutions and General Secondary Education Institutions of State Higher Education Institutions] (2018). Latvijas Vēstnesis, 163, 17.08.2018.

One of the challenges for the education system of Latvia in the inclusive context of the last 20 years is “children outside the education system”, it means that there is a certain number of children who were not registered in the education institution at the age of the mandatory education. The Guidelines for the Development of Education for 2007-2013 mentioned that 5.6% of all children are outside the education system[73]. Already at that time, one of the possible explanations was inaccurate registration of children, as well as the non-involvement of local governments in solving this problem. The number of unreported children has decreased significantly over the years. The 2018 annual report of the State Education Quality Service had already indicated relatively fewer such children: 1130 children[74].

Bulgaria

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Latest monitoring on the education (including inclusive education) in Bulgaria was conducted in 2019. Efforts to modernize the education and training system continue, but improving its quality, relevance to the labour market and inclusive character continues to be a challenge.

Demographic trends and growing skills shortages mean that Bulgaria needs to invest more in the qualifications of its current and future workforce. The need for training and retraining of the elderly population is great, but participation in adult education is low.

The prestige of the teaching profession is low and the workforce in the teaching sector is aging. As a way to increase the attractiveness of the profession, salaries are raised. Steps

https://likumi.lv/ta/id/301070-grozijumi-ministru-kabineta-2016-gada-5-julija-noteikumos-nr-447-par-valsts-budzeta-merkdotaciju-pedagogu-darba-samaksai-pasval...

[73] Izglītības attīstības pamatnostādnes, 2007.–2013. gadam [Guidelines for the Development of Education 2007-2013]. http://izm.izm.gov.lv/normativie–akti/politikas–planosana/1016.html

[74] Izglītības kvalitātes valsts dienesta 2018. gada publiskais pārskats [Public Report of the State Education Quality Service] (2018). IKVD. Rīga. https://ikvd.gov.lv/wp-content/uploads/2019/09/2018_IKVD_Gada_p%C4%81rskats_1.pdf

have been taken to increase the applicability of vocational education and training (VET) to the labour market.

The Act on preschool and school education in Bulgaria[75], which came into effect in 2017 states that "education is a national priority and it is ensured by applying the following principles:

- orientation to the interests and motivation of the child and of the pupil, to the age and social changes in their lives, and to their ability to use the competences they have mastered in practice;
- equal access to high-quality education and inclusion of every child and every pupil;
- equal treatment and non-discrimination in pre-school and school education".

In part 178 paragraph 1 of the Act on preschool and school education[76] the general support for the personal development of children aimed at the prevention of learning difficulties is to include individual children in activities according to their needs, such as:

- Training through additional modules for children who do not speak Bulgarian - the activity is done by the teachers in groups in the kindergartens;
- Application of psychomotor, cognitive and linguistic development programmes, individual and group work with established linguistic and/or emotional-behavioural and/or sensory difficulties - the activity is taken by a psychologist, speech therapist or other pedagogical specialist, if necessary - a rehabilitator (hearing and speech), etc.

The overall support for the personal development at school, which targets all children in a pre-primary school preparatory groups and all pupils in the classroom, ensures their participation in the educational process and the activities of the school and includes:

- Teamwork among teachers and other pedagogical specialists;
- Career orientation of students;

[75] *Pre-school and School Education Act*. http://lll.mon.bg/uploaded_files/ZAKON_za_preducilisnoto_i_ucilisnoto_obrazovanie_EN.pdf Pages 1-2.

[76] *Pre-school and School Education Act*. http://lll.mon.bg/uploaded_files/ZAKON_za_preducilisnoto_i_ucilisnoto_obrazovanie_EN.pdf Page 58.

- Interest activities;
- Library-information services;
- Health care based on information from the parent, the child's representative or the child care provider, the child's state of health and medical research and counselling, and interaction with the health care professional in the health office at the school;
- Provision of a hostel;
- Encouragement with moral and material rewards;
- Activities to prevent violence and overcome problematic behaviour;
- Activities for the prevention of learning difficulties, including logopedic work.

The general support for personal development at school aiming at prevention of learning difficulties is to include individual pupils in activities such as:

- Additional training on subjects with emphasis on the Bulgarian language education, including literacy of pupils for whom the Bulgarian language is not the first one;
- Counselling on subjects and additional counselling on subjects outside the regular school hours;
- Logopedic (speech therapy) work with students.

Teamwork between teachers and other pedagogical specialists involves discussions on issues and exchange of good practices working with the same children and pupils to increase the effectiveness of pedagogical approaches. Teachers working in municipal kindergartens, schools and service units know and use various types of general support for the personal development in their direct work. They discuss activities, share information and good pedagogical practices to support all teachers to improve their work with children or pupils in the classroom. They hold regular meetings for prevention purposes between a small group of teachers and other pedagogical specialists in the kindergarten, respectively, between the class teacher, teachers and other pedagogical specialists in the school.

Additional support for the personal development under Art. 187 addresses four groups of children and pupils: with special educational needs (SEN)[77] - at risk, with prominent gifts, with chronic diseases and working with a child and a pupil on a specific case.

Additional support for the personal development includes:

- Psycho-social rehabilitation, hearing and speech rehabilitation, visual rehabilitation, rehabilitation of communicative disorders and physical disabilities;
- Providing accessible architectural, general and specialized support environment, technical facilities, specialized equipment, didactic materials, methodologies and specialists;
- Providing training on special subjects for pupils with sensory disabilities;
- Resource support.

The State Educational Standard for inclusive education[78] sets out the terms and conditions to provide general support for the personal development of children and pupils; as well as the conditions and order for providing additional support for the personal development of children and pupils under Art. 187, para. 2 of the Pre-school and School Education Act[79] and the provision is based on the assessment of their individual needs as well as the preparation of a plan to support the child or the pupil from a support team for the personal development in the kindergarten or in the school (The Order for inclusive Education).

Support for the personal development is provided in accordance with the individual educational needs of each child and each pupil and is carried out by teachers and other pedagogical specialists in the kindergarten or school - a psychologist, pedagogical counsellor, or pedagogical specialists at the centre for the personal support development who organise and coordinate the process of providing the general and additional support for the personal

[77] *Pre-school and School Education Act*. http://lll.mon.bg/uploaded_files/ZAKON_za_preducilisnoto_i_ucilisnoto_obrazovanie_EN.pdf Pages 60-61.

[78] *Наредба за приобщаващото образование* [The State Educational Standard for inclusive education] (2017). http://www.sbubg.info/files/naredba_priobshavasho.pdf

[79] *Pre-school and School Education Act*. http://lll.mon.bg/uploaded_files/ZAKON_za_preducilisnoto_i_ucilisnoto_obrazovanie_EN.pdf Pages 60-61.

development of children and pupils by order of the kindergarten or school director at the beginning of each school year.

In 2019, the Ministry of Education and Science began work on a national programme for desegregation in education[80]. The budget is one million leva (half million euro), which will cover the municipalities' transport costs, teaching aids, as well as additional activities for children, parents and teachers. Apart from the educational effect, the desegregation program in education also has a social significance for people to show understanding and learn to live together peacefully.

In carrying out the assessment of the individual needs of children and pupils, the specialists from the team under Art. 68, 2 obligatory:

- Use assessment methodologies approved by the Ministry of Education and Science (Methodology for assessment of the educational needs of children and pupils, Methodology for functional evaluation and work with children with cognitive disabilities and autistic spectrum of development, Methodology for assessment of the individual needs of children and pupils with multiple disabilities), methods for verbal and non-verbal evaluation - PECS system, MACATON, hand-in-hand communication, Tadoma method, C-MAP method and other methods, standardization wounds instruments - Test "Binet-Terman" Test Wexler, etc.;
- Take into account the educational and personal achievements of the child or the pupil;
- Take into account the social and emotional development of the child or the pupil;
- Use formal and informal methods of monitoring and evaluation;
- Use the information for the child and the pupil referred to in Article 22 so far.

[80] *Национална програма „Подпомагане на общините за реализиране на дейности за образователна десегрегация“* [National programme “Supporting the municipalities for the implementation of activities for educational desegregation”]. https://www.mon.bg/upload/19229/19RH172pr17-obshtini.pdf

In accordance with the World Health Organization (WHO) International Classification of Functioning of Man, Disability and Health (ICF)[81] and taking into consideration the WHO International Classification of Diseases - ICD 10[82], the assessment of children and pupils is carried out with an Individual Needs Assessment Card of the child or the pupil. It contains the following components:

- Assessment of the functioning of the child or the pupil;
- An opinion of the team that carried out the assessment of the individual needs for the resources needed for additional support for the personal development of the child or the pupil;
- Determination of the specificity and type of additional support - short-term or long-term;
- A recommendation to use other services, including social services, or to engage in other activities.

Currently, there are many European and national programmes for inclusive education in Bulgaria. Such as "Together we can do more"[83], "National programme for prevention of school violence"[84], "One school for all"[85]. The Ministry of Education monitors their observance.

Belgium

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

[81] World Health Organization. (2001). *International Classification of Functioning of Man, Disability and Health.* https://www.who.int/classifications/icf/en/

[82] World Health Organization. (2010). *International Classification of Diseases - ICD 10.* https://icd.who.int/browse10/2010/en

[83] *Заедно можем повече* [Together we can do more]. http://uchabulgarski.bg/about/

[84] *National programme for prevention of school violence*. https://www.unicef.org/bulgaria/en/together-against-violence-schools

[85] *Едно училище за всички* [One school for all]. https://www.ela-bg.eu/bg/programa-edno-uchilishte-za-vsichki-faza

Belgium level

Belgian authorities initiate services and regulations inspired by UN and EU legislations on their education system. Belgium with its four autonomous regions provides various implementation based on the local needs and global trends. Each region follows different regulations to make its education system more inclusive and accessible for pupils with disabilities. As addressed in the UN regulation and EU legislations, Belgium provides equal opportunity in education for pupils with disabilities. These pupils can choose special education; however, with the M-Decree legislation, mainstream education with social support is recommended.

Flanders level

The Flemish government is bound by the International Convention on the Rights of Persons with Disability (CRPD)[86]. This convention guarantees the principle of non-discrimination and inclusive education rights. After the Flemish Parliament ratified the UN Convention on the Rights of Persons with Disabilities in 2009, the Flemish Community legally reinforced the right of pupils with special educational needs to be enrolled in mainstream education, through passing the M-Decree in 2014, with measures including:

1. Updating the definition categories for pupils with special educational needs, including a category for children with autism.
2. Requiring mainstream schools to make reasonable adjustments, such as providing specialist equipment and support staff to accommodate pupils with special education needs in the mainstream system, and requiring mainstream schools to only refer a pupil to special education once all such “reasonable adaptations” have been tried.
3. Providing parents of a child with special educational needs who disagree with a school’s refusal to enrol their child with the right to appeal to a Student Rights Commission (Commissie inzake leerlingenrechten or CLR). This commission is comprised of experts

[86] United Nations. (2006). *Convention on the Rights of Persons with Disabilities.* https://www.un.org/disabilities/documents/convention/convention_accessible_pdf.pdf

and was created by the Parliamentary Act of 2002 on Equal Educational Opportunities87. The M-Decree strengthened the registration right for pupils with special needs. The new rules distinguish between pupils who have/not a report from CLB which determines if they need special education or inclusive mainstream education.

According to Codex Vlaanderen[88], the Decree on measures for pupils with special educational needs, the Flemish community regulated the educational system with its all stakeholders in order to be more inclusive. The Flemish community appointed an institution especially for inclusive education and pupils' special needs (CLB) and provides economical support for the pupil with special needs.

Cyprus

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The current situation of Inclusive Education in Cyprus

Currently in Cyprus, full time education is provided for free and is compulsory for all children between the ages of 5 to 15. The education system is highly centralized, as it is controlled by the state. The education system is divided into pre-primary education (age of 3 to 6), primary education (age of 6 to 12) and secondary education that is divided into Gymnasium (age of 12 to 15) and Lyceum/Technical school (age of 15 to 18).

All children with special educational needs (SEN) are referred for assessment to the school committee, which decides in which school setting each child fits better and what adaptations

[87] Parliamentary Act on Equal Educational Opportunities. (2002). http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&cn=2005071549&table_name=wet

[88] Decreet betreffende maatregelen voor leerlingen met specifieke onderwijsbehoeften. (2014). https://codex.vlaanderen.be/Portals/Codex/documenten/1024474.html

are required to achieve its full potential. In case parents do not agree with this decision, they have the right to appeal.

According to statistics, in 2014/2015, 5 559 students, i.e. around 7 % of all primary and secondary school students, were officially recognised to be requiring special needs education. Most of them (80%) were integrated in the general classes of mainstream schools. As per recent statistics (2017) of the European Agency for Special Needs and Inclusive Education, there were in total 9 469 cases of children officially diagnosed with a special need and from those, 7 862 were educated in mainstream groups/classes for at least 80% of the time, 959 were in special units in mainstream schools, whereas 220 were educated in separate special (pre)schools[89].

Special Schools - Curricula and courses

Children with SEN attending mainstream schools usually face mild learning difficulties, while those attending special education schools face greatest learning difficulties.

The focus of the curricula of special schools lies in skills development in the areas of self-help and independence skills, social and emotional interaction, recreation and communication, as well as vocational training. In case children can follow certain elements of the mainstream curriculum, then such elements are included in their individual educational programme (IEP).

The Director of each special school makes decisions regarding the pupils and the courses/subjects included in their school curriculum. Pupils study what they can according to their educational level and there is no compulsory curriculum that should be followed. Pupils should have their own IEP, as it is important not only for learning, but also for developing as individuals.

[89] European Agency Cyprus Data. https://www.european-agency.org/data/cyprus/datatable-overview?year=2014_2015#tab-0

The IEP focuses on different areas, including the psychological, social, educational, and pre-professional, and is designed based on the abilities, weaknesses, and special characteristics of each pupil. The IEP is drawn up by the special needs coordinator in cooperation with parents and is based on the suggestions contained in the report provided by the District Committee of Special Education; it is then approved by the Head of the respective Directorate of the Ministry of Education and Culture.[90]

Inclusion in pre-primary mainstream education

Pupils with SEN who can follow certain courses or classes in mainstream schools are allocated to the mainstream provision of special education, and not to a special school.

In pre-primary education, teachers have the flexibility to adjust teaching methods and take the time to alternate and repeat specific educational targets. This prevents the exclusion of some children with SEN from mainstream classroom teaching (Inclusive Early Childhood Education (IECE) project, Example of IECE provision: Cyprus p. 3)[91]. Specialist educators must cooperate and interact with the pupil's teacher to develop and deliver an individual education plan for each pupil. Unless there are exceptional circumstances, these services should be provided within a class at the pupil's local school, which should be equipped with all necessary adaptations and resources.

Recently, the national curriculum for pre-primary education was assessed and restructured to *focus on skills development rather than on knowledge acquisition* (including individualized instructions, new methodological approaches, etc.).

[90] Ministry of Education and Culture Cyprus. Special Education. http://www.moec.gov.cy/eidiki_ekpaidefsi/en/infoserv_special_ed_referral_recruitment_process.html

[91] Inclusive Early Childhood Education (IECE) Project. Example of IECE Provision: Cyprus. https://www.european-agency.org/projects/iece/examples-inclusive-practice-ece

Inclusion in primary mainstream education

In primary education, if attendance in certain courses in the mainstream classroom does not meet learners' needs, then learners can use this time for getting support from special education, speech therapy or attending the special unit of the school in which they are allocated.

Special Units in mainstream education

Special units provide more intensive special education to a small number of learners (usually up to six), while maintaining contact and inclusion with a specific reference class in the school. If none of these adaptations suit learners' needs, they may attend a special school.

Inclusion in secondary mainstream education

In secondary education, pupils with specific learning difficulties are enrolled in support programmes individually or in groups, according to their needs. Special educational support is usually provided for courses/subjects in which pupils are examined in at the end of the school year, such as Modern Greek, History, Physics and Mathematics. Learners are exempted for provision of educational support, from courses that they cannot attend due to their disability (e.g. ancient Greek and/or a second foreign language). Learners with specific sensory disabilities receive specialized assistance from the special schools.

Cyprus Educational System under Reform

The Cyprus Educational system is *under the process of reforming* to achieve better results and to become more inclusive.[92] Some of the key changes related to inclusive education are listed below:

- Since 2017, all teachers who want to be appointed in public schools need to succeed in written examinations (Law 127(I)/2015, The new Appointee system).93
- During the academic year 2017-2018, a plan for allowing school units to operate with more autonomy and set their own objectives, which will be tailored to the needs and demands of pupils, teachers, and the school unit itself was developed (in pilot phase).
- During the academic year 2019-2020, a project for modernizing special and inclusive education was initiated, and
- During the academic year 2020-2021, the new evaluation system for teachers that aims to improve the quality of the education system is scheduled to be implemented.

More details can be found at: https://eacea.ec.europa.eu/national-policies/eurydice/cyprus/national-reforms-school-education_en

[92] EURODICE Cyprus National Reforms. https://eacea.ec.europa.eu/national-policies/eurydice/cyprus/national-reforms-school-education_en

[93] EURODICE Cyprus National Reforms. (Law 127(I)/2015) The new Appointee system. https://eacea.ec.europa.eu/national-policies/eurydice/cyprus/national-reforms-school-education_en

Competences and attitudes of inclusive teaching staff for promoting inclusive teaching

Introduction

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Broader understanding of inclusive education means that regular schools have to open up for all children, by providing equal and qualitative educational opportunities to meet the needs of all pupils. Inclusive education requires schools to change and to respond to all learners, namely, those considered 'vulnerable' and 'persons with disabilities'. It implies that teachers in regular schools must have positive attitudes and believe that all pupils have the capacity to learn and there are pedagogical means to enable opportunities for all children to learn in a friendly, safe and inclusive environment. Teachers have to be positive about their own capacity and they have to be responsible to promote learning for all their pupils. As it was suggested by Forlin and Chambers, the mainstream school teacher is the most important component in the success of inclusive education[94]. Rose adds to that saying that teachers are a crucial element in building more inclusive schools.[95] To work in an inclusive classroom the teacher needs both a positive attitude towards inclusive education and "knowing about" inclusion, "doing" it and "believing" in it[96]. In other words, a teacher has to practice inclusive education by "doing" it, "knowing" how to do it and "believing" in what he/she is doing. Rose points out that teachers should know the following about inclusive education:

- Teaching strategies
- Disability and special needs

[94] Forlin, C., & Chambers, D. (2011). Teacher preparation for inclusive education: increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education*, 39(1), 17-32. https://doi.org/10.1080/1359866X.2010.540850

[95] Rouse, M. (2008). Developing inclusive practice: A role for teachers and teacher education? *Education in the North*, 16, 6–13.

[96] Rouse, M. (2008). Developing inclusive practice: A role for teachers and teacher education? *Education in the North*, 16, 6–13.

- How children learn
- What children need to learn
- Classroom organisation and management
- Where to get help when necessary
- Identifying and assessing difficulties
- Assessing and monitoring children's learning
- The legislative and policy context

"Doing" means:

- Turning knowledge into action
- Moving beyond reflective practice
- Using evidence to improve practice
- Learning how to work with colleagues as well as children
- Becoming an 'activist' professional

Believing in inclusive education means:

- That all children are worth educating
- That all children can learn
- That they have the capacity to make a difference to children's lives
- That such work is their responsibility and not only a task for specialists."[97]

Inclusive teachers must possess positive attitudes both towards inclusion education, diversity in the classroom, and disability in addition to the content and pedagogical knowledge of inclusive pedagogy. Besides, teachers have to implement their knowledge into the practice, constantly reflecting on the progress.

Latvia

Contributor: Dita Nimante (University of Latvia, Latvia)

[97] Rouse, M. (2008). Developing inclusive practice: A role for teachers and teacher education? *Education in the North*, 16, 6–13. (p. 13, p. 14)

Latvia has been influenced by the political move towards inclusive education, therefore in 2019/2020 the newly developed initial teacher education programs, master level programs in educational sciences and doctoral level programs in educational sciences have adopted ideas of inclusive education by integrating new courses and new content related to inclusive education. Those programs are intended to prepare both practicing teachers and future teachers to work in the inclusive school environment. It is known from the research that teachers who already serve in the general education system lack necessary education in inclusive and special education for working effectively in an inclusive environment[98]. Teachers lack knowledge and tools to cope with children with special needs in mainstream classes and to deal with wide learner diversity, including children with special needs in today's schools. This could be partially caused by the situation that the general education teachers historically were not educated to deal either with special education issues or inclusive education issues in their initial education. At the same time, the current general education system is held responsible for the teaching and advancement of all pupils including those with special needs. Although teachers generally have positive attitudes towards inclusive education as such[99] it is not enough, they do need specific knowledge, skills and competencies to implement inclusive education in practice[100]. The lack of those specific competencies can be one of the factors, why the progress of inclusive education in practice in Latvia is relatively slow, as the teachers are the most important factor for implementing inclusive education in practice.

[98] Raščevska, M., Nīmante, D., Umbraško, S., Šūmane, I. Martinsone, B., & Žukovska, I. (2017). Pētījums par bērniem ar speciālām vajadzībām sniedzamo atbalsta pakalpojumu izmaksu modeli iekļaujošas izglītības īstenošanas kontekstā. (Projekta līguma Nr. ZD2017/20386, projekta LU reģistrācijas Nr. L-20386-ZR-N-040). LU.

[99] Raščevska, M., Nīmante, D., Umbraško, S., Šūmane, I. Martinsone, B., & Žukovska, I. (2017). Pētījums par bērniem ar speciālām vajadzībām sniedzamo atbalsta pakalpojumu izmaksu modeli iekļaujošas izglītības īstenošanas kontekstā. (Projekta līguma Nr. ZD2017/20386, projekta LU reģistrācijas Nr. L-20386-ZR-N-040) LU.

[100] Nīmante, D. (2018). Competent Teacher for Inclusive Education: What Does it Mean for Latvia? In L. Daniela (Ed.) Innovations, Technologies and Research in Education (229-244). Newcastle upon Tyne: Cambridge Scholars Publishing.

The newly developed “Professional Standard for Teachers”[101] (which is approved in 2020, June) states several duties and tasks of the teacher clearly related to inclusive education:

- “to systematically find out the learner's individual development, learning, personality, and social growth needs, language and civic competence for the planning and implementation of a child-centred learning process;
- in cooperation with colleagues in the educational institution to plan a coordinated learning process with the aim to include all learners and promote their growth;
- to plan an inclusive learning process and environment, setting specific results to be achieved for each learner and choosing appropriate methods, techniques, tools and resources;
- to create an inclusive, intellectually stimulating, emotionally and physically safe learning environment by supporting the learner's dignified, responsible and safe behaviour, implementing the appropriate development needs of each learner approach;
- to cooperate with colleagues in the educational institution and parents of the learner identifying individual learning needs, planning and implementing solutions;
- to implement a learning process that meets the needs of the learner's individual development and is close to life situations;
- to use various teaching methods, techniques and teaching aids in accordance with the needs of the learner's individual development and the learning outcomes to be achieved;
- in cooperation with other teachers, pedagogical support staff, the management of the educational institution, the learners and the learners' parents, to communicate information regarding the learner's growth, performance and the necessary support for the improvement of learning”.

[101] Profesijas standarts. (2018). https://visc.gov.lv/profizglitiba/dokumenti/standarti/2017/PS-048.pdf

To prepare both pre-service and in-service teachers it is important to educate teachers either in initial teacher education programs[102] or in professional development courses[103].

Bulgaria

Contributors: Andrean Lazarov (Marie Curie Association, Bulgaria), Prof. Dsc. Snezhana Ilieva, and Valeria Vitanova, PhD (Sofia University "St. Kliment Ohridski", Bulgaria)

The analysis of this topic will show an alarming trend, which significantly hinders the transfer of education. In Bulgaria for many years the teaching profession is not valued. The work is hard. The salary is unattractive. Pedagogical specialties in universities are entered with the lowest score… all this already has terrible consequences. The teaching staff is aging. Many teachers are of retirement age because there are no young people to replace them. We mention all this because there is a direct connection with the fact that Bulgarian teachers have difficulties with inclusive education. In Bulgaria, the "tradition" for children with special needs has been to attend special schools.

However, we must say that the education system has changed a lot, but the teachers are largely at the same status. Many of them even feel nostalgic for the old system. Even when a young teacher first comes to school or kindergarten, s/he is not prepared enough for this work by the university and s/he begins to learn the "craft" from his/her older colleagues. Therefore, old educational attitudes are transmitted and very difficult to eliminate. That is why we must definitely state that there is still a lot of work with the pedagogical staff in Bulgaria in order to have a truly inclusive education. Of course, a lot is being done to change that.

[102] Nīmante, D., & Repina, N. (2018). Inclusive education for pre- service teachers in Latvia - what are the learning outcomes for pre-service teachers? In: 11th annual International Conference of Education, Research and Innovation (ICERI), Dates: 12-14 November, 2018, Seville, Spain: Proceedings, Ed. L. Gómez Chova, A. López Martínez, I. Candel Torres, Seville: IATED Academy, doi: 10.21125/iceri.2018.2452

[103] Bethere, D., Neimane., I & Ušča, S. (2016). The opportunities of teachers' further education model improvement in the context of inclusive education reform. In *2nd International Conference on Lifelong Education and Leadership for ALL, Proceedings* (pp. 288-298). Liepaja: Liepaja University.

Recently, the symbiosis between the teaching styles of the teacher and the learning styles of the pupil with learning difficulties articulates the application of the universal learning design, the instructional design, the design of the individual curriculum, the inclusive design for work with the family and the community, the inclusive classroom, and the plan to apply the developed designs to the relevant environmental contexts.

The teacher, having the leading role in positive inclusive education, can trace a favourable perspective for each child/pupil by effectively applying the psychological and pedagogical programmes that they have mastered in the course of their qualification and additional experience.

The inclusive teacher is more than a teacher. They need to determine the future of their pupils with both positivism and leadership skills involved in the formation of a confident personality in each child.

Every teacher should be an inclusive teacher and they are the most significant ambassador of inclusive education because:

- They seek, find and achieve harmony in the differences among children/pupils, teachers and parents;
- They detect and accept differences as a valuable resource;
- Through inclusive education, knowledge and learning they generally trace the path of inclusive society.

The current guidelines for training and inclusion of children with learning difficulties are to achieve a high quality of their education. There is a need for such education to ensure the best possible inclusion and social integration of these children. The importance of all these priorities and requirements in the process of implementing inclusive education is indisputable. Their effectiveness is significantly greater when they act simultaneously. These are some of the conditions and requirements that children need to become more successful, more creative, more educated, more balanced and virtuous, and above all not to live with the idea that they

are not part of the society and that they are not accepted (by Trichkov in 2015[104]). That is why we as adults need to be able to surround them with the best we can and create such a psychological climate in which they can successfully develop their potential strengths and abilities.

In the process of choosing a learning style in working with pupils with learning difficulties, a process of cooperation and active communication in the dual process is realized: teacher - pupil. In this plan, learning styles should be flexible according to the specific situation and specific participants, and there is a variety of pedagogical communication.

A significant factor in choosing a particular style of education at pre-primary and elementary-school age is the frequency of informal interaction between learners and teachers and the administrative staff of the school. The learning outcomes of pupils with learning difficulties are not directly influenced by informal interactions. The presence of more intense informal communication between teachers and/or administrative staff and pupils leaves a stronger influence on:

- Increasing the motivation to learn for the pupil with learning difficulties;
- Positive personality and social development of the pupil with learning difficulties;
- Adaptive choice of the learning style by the pupil with learning difficulties according to the content and requirements of the teacher;
- The choice of an acceptable teaching style which is appreciated by the pupil with learning difficulties.

In the inclusive classroom in kindergarten and / or elementary school all learners, teachers and people involved in education have to observe certain rules for inclusion. The inclusion rules are as follows:

- Full inclusion of all pupils in the classroom activities during the day, both in educational and extra-curricular activities;

[104] Тричков Ив. (2015). Социални нагласи на масовия учител към интеграцията и приобщаващото образование на деца и ученици със специални образователни потребности. В сборник *Предизвикателствата на приобщаващото образование* УИ „Паисий Хилендарски“.

- Resultant and intense levels of communication both in the classroom and during the intervals;
- Day-to-day organization of the classroom;
- Flexible adaptation and modification of the curriculum;
- Individual planning for every day;
- Effective provision of individual support with the resources of general, supplementary and special support;
- Individual application of assistive devices and assistive technologies;
- Working together or performing certain activities (including learning together with "different" pupils);
- Positive handling of behaviour in extreme/emergency situations.

In summary, the following highlights apply for each teacher who works with pupils with learning difficulties:

- Different time for teaching and learning for the individual pupil;
- Learning with small steps;
- Learning through more practice and introducing elements of project-based learning;
- Learning with emotions;
- Taking into account the pupil's sensory profile;
- Taking into account the pupil’s interests;
- Poly-sensory presentation of information;
- The instructions are individual to concentrate on the particular pupil;
- The amount of the instructions is determined by the needs of the children and not by the administrative requirements (length of lessons, consistency, etc.);
- The training materials are graded in complexity;
- At each level of difficulty, the skills are absorbed in fluidity before moving to the next level;
- At each level, making a connection between various elements being mastered and not adding new themes in a general aspect;
- If possible, introducing "preventable errors" learning to increase pupil motivation;
- Automatic execution is not allowed;
- Additional resources for general motivation and self-control of pupils should be added to individual programs;

- Pupils should be oriented towards understanding and considering the respective tasks;
- Observance of routine and rituals;
- Elimination of additional or occasional irritants;
- Making many reps;
- Adjustments are made at the time of errors;
- Explaining the adjustments;
- Taking into account the little success;
- Resource support;
- Training should be done in interactive, creative and innovative models;
- Training is required to import game components;
- Training must be safe;
- Inclusion of a family and community context;
- Involvement of volunteers;
- Learning with the use of appropriate aids and assistive technologies.

No ready-made universal recipes and prescriptions for the individual pupil with learning difficulties in the class are available, but when the teacher complies with the discussed common models, applies his/her competencies and pedagogical experience, the virtuous use of a variety of appropriate learning styles will be present; the teacher will work with satisfaction with the pupil with learning difficulties, and this pupil with learning difficulties will attend the school, will learn with pleasure and the difficulties in the training will be overcome with ease.

Belgium

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The M-Decree regulation[105] brought extra requirements, as extra formational and psychological supports, for the teaching staff in the field. Because of these requirements, the

[105] M-decreet. (2014). https://onderwijs.vlaanderen.be/nl/grote-lijnen-van-het-m-decreet

regulation provides extra supports for teachers. Besides, there is no structural and sustainable financing model to achieve inclusion. However, the European Accessibility Act[106] aims to support stakeholders in the field of inclusive education regarding materials and services.

The pedagogical counselling services employ competence supervisors that help teachers broaden their competences so that they can optimally deal with pupils with specific educational needs.

The counselling services do this in 3 ways:

- Inform about what the M-decree entails.
- Offer support at school and classroom level, by giving tips to the teacher and the school.
- Stimulate cooperation between schools and teachers and work on expertise development in support networks (operational from 1 September 2017).

On the other hand, in the 2017-2018 academic year, the Flemish government offers free refresher projects for dealing with the specific educational needs of pupils.

Training programs offer specific sessions to the teaching staff according to the needs and levels of their pupils.

For primary and secondary education:

- The training M-decree: Motor, motivation, and possibilities107- teachers and school administrators will learn how you work with all actors in and around the school.

[106] European Accessibility Act. https://ec.europa.eu/social/main.jsp?catId=1202#:~:text=The%20European%20accessibility%20act%20is,EU%20leading%20to%20costs%20reduction

[107] M-decreet: motor, motivatie en mogelijkheden. https://www.arteveldehogeschool.be/opleidingen/bijscholingen-en-studiedagen/m-decreet-motor-motivatie-en-mogelijkheden

- The V-eSperAnZa108 - is the refresher course that teaches how to collaborate more inclusively with all actors in order to provide pupils with special educational needs opportunities for their development.
- KITS109 - powerful indicators for an accessible school to develop knowledge and skills to work with inclusion and specific educational needs. Coaching sessions are part of the project.

For secondary education:

- Expedition M[110] (not valid yet) - a search for sustainable integration of inclusive action and thinking.
- The M-decree as an engine for excellent education[111] - teaches, through cases, which theoretical frameworks and practical tools are indispensable in school and classroom, so that pupils with specific educational needs can be supported optimally.

Examples and best practices

Name	**Target group**	**Method**	**Findings**	**References**
Bert has a physical disability and completed his school career in a normal school	Pupils with disabilities (Physical disability in this case)	Individually Adapted Curriculum	Individual implementation helps pupils to do normal curriculum in their way	https://www.klasse.be/
The power of co-teaching in the M-Decree	Teachers who teach the children	Co-teaching, Experience sharing	Co-teaching helps teachers to improve their	https://www.klasse.be/

[108] Prioritaire nascholing M-decreet V-eSperAnZa. (2017). https://www.katholiekonderwijs.vlaanderen/nieuws/prioritaire-nascholing-m-decreet-v-esperanza

[109] KITS: Krachtige indicatoren voor een toegankelijke school. http://www.onderwijs.vlaanderen.be/sites/default/files/atoms/files/UCLL-16_17.docx

[110] Expeditie M. https://www.ovsg.be/expeditie-m

[111] Het M-decreet als motor voor uitmuntend onderwijs. https://pro.g-o.be/blog/Documents/SDL_motor_uitmuntend_onderwijs.pdf

Name	Target group	Method	Findings	References
	with disability		skills and knowledge. Besides, cooperative teaching methods are possible in every lesson	
New pedagogical Approach in GO! Atheneum Herzele	A-stream pupils	More relaxed curriculum, more time to individual interaction. Teachers are not teaching directly but coaching.	Still processing	https://www.youtube.com/
Bilingual classes for deaf and hearing-impaired pupils	Deaf and hearing - impaired children	Teaching both pupils in bilingual (French and French-Belgian Sign Language	This method gives deaf and hearing-impaired pupils immediate access to the same skills	http://www.es.sainte-
Teacher of the year 2019 is 3 co-teachers	Teachers who teach the children with disability	Co-teaching, Experience sharing, cooperative teaching	Teachers help each other to overcome the problems and improve the quality of the class	
Differentiation on 4 tracks: all pupils at their own pace	Pupils with special needs and their teachers in the inclusive classroom.	All teachers work with a 4-track policy to easily differentiate in the classroom, the pupils work at their own pace and learn to	Hard to implement as the process requires long term patience but results show how track suits them best.	https://www.klasse.be

Name	Target group	Method	Findings	References
		assess their level.		
Classical teaching at the blackboard is impossible	Pupils with special needs	Manual tasks and online games used in the classroom	It helped to calm down pupils in the class and teach them actively	https://www.klasse.be/
#DoeGewoon: the stories of Felix and Ward	Pupil with disabilities	Experience Sharing, Success Stories	Success Stories, peer motivation helps to encourage pupils with disabilities to be included in the society	https://www.oudersvoorinclusie.be/

Cyprus

Contributors: Marianna Gregoriou, Angelos Nicolaou and George Milis (EUROCY Innovations Ltd, Cyprus)

Inclusive Education and Children with Disabilities

The goal of inclusive education is to transfer the message that “every learner matters and matters equally”. Unfortunately, not all professionals share the same value, as they continue to marginalize certain pupils who encounter a disability from entering mainstream education.

According to the World Health Organization (WHO), in 2017, “children with disabilities were amongst the most marginalized and excluded groups of children”.[112]

Many factors can help in facilitating inclusion and equity in education, some of them being the pedagogical staff skills and attitudes (one of the main), the pedagogical strategies, access to

[112] World Health Organization. 10 facts on disability. https://www.who.int/features/factfiles/disability/en/

the curriculum, the infrastructure, the funding for resources, the professional development, etc.

Inclusive education teachers have a very important and challenging role to play, as they need to find and apply methods to enhance equal opportunities and quality education to all learners by promoting the interaction and participation, so all learners can enjoy a meaningful learning experience and engagement in other activities. Teachers need to collaborate with other professionals for a more holistic support.

Teachers' beliefs on inclusion in Cyprus

Back in 1979, the practice of inclusion had no legislative foundation in Cyprus, but at this point the state took the responsibility to provide special schools for learners with disabilities. In 1999, the "Law for Education and Training of Children with Special Needs 113(I) 1999 was established. As Helen Phtiaka noted in her study in 1999 "despite the passing of the 1999 law, the notion of special schooling co-exists alongside the notion of integration, whereas inclusive education remains a rhetorical term, mentioned occasionally in official documents as a synonym to integration"

In another study about Cypriot teachers' attitudes and beliefs regarding inclusive education, it is stated that "teachers tend to think on the basis of a medical and charity model, and they favour special schooling for specific groups of children".[113] (Phtiaka & Simeonidou, 2009) One might think that Cyprus was at the beginning of gaining an understanding on what inclusion is and the importance that it has for all the children, not only those who have a special need, as research suggests the numerous potentials that inclusive education has for all learners. Angelides, Stylianou and Gibbs are exploring how Cyprus Universities are responding to the challenge of inclusive education. They identify certain factors that act as barriers in the

[113] Symeonidou, S., & Phtiaka, H. (2009). Using teachers' prior knowledge, attitudes and beliefs to develop in-service teacher education courses for inclusion. *Teaching And Teacher Education*, *25*(4), 543-550. doi: 10.1016/j.tate.2009.02.001

development of inclusive practices by lecturers.[114] These factors are related to the curricula, since there is a different understanding on what inclusive education is and this creates confusion among students, with a lecturer reporting: “I cannot give a definition for inclusive education. The point is that inclusive education does not appear clear in the curriculum and we do not have a common policy as a university. Each one teaches whatever they want and sometimes we contradict each other”.

The other factor stated was about the notion of inclusion. According to the researchers there were different interpretations and different means used by professionals to define inclusion. “A large group supported the view that inclusive education emerges from the field of ‘special’ education, a number of others that it deals with education of the disabled, some others that its main concern is children categorized as having special needs, and a few that the term means the movement of some children from ‘special’ to ‘regular’ schools”.

Another factor is the different levels of culture between teachers, with an example of a candidate teacher being explained in this study. “The way of my teaching was determined in a great degree by the teachers I observe to teach in the classes I do my practical training. Even if in some cases I disagree with the practice of the teacher, because she contradicts with what I learned at the university, most of the times I do the same and little by little I assimilate it to my practice“.

A more recent study held in 2013 notes that professionals still share the same beliefs.[115] More specifically “the Cypriot educational system is still highly segregating in its philosophy and does not fully support the active inclusion and participation of all children in the school life” and ”inclusion is concerned only with the education of specific groups of children; the medical model is still prevalent within inclusion discourse; and inclusion is understood as consisting of different levels.” (Mamas C, 2013)

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[114] Angelides, P., Stylianou, T., & Gibbs, P. (2006). Preparing teachers for inclusive education in Cyprus. *Teaching and Teacher Education*, *22*(4), 513-522. doi: 10.1016/j.tate.2005.11.013

[115] Mamas, C. (2013). Understanding inclusion in Cyprus. *European Journal of Special Needs Education*, *28*(4), 480-493. doi: 10.1080/08856257.2013.820461

Inclusion vs Integration

It is important to understand that inclusion and integration are two separate things. Inclusion aims the full participation of all students in the classroom, as it is the process of teaching children in such a way that could benefit all children, since all children are learning in a different way. Integration, on the other hand, mainly focuses on absorbing children with special needs in the mainstream education.

Following the integration approach, children with SEN should fit in the mainstream classroom and thus, to accommodate their needs, the course would need to change. In the Inclusion approach, the focus is mainly on improving participation, not only for the children with SEN, but also for all other children and to accommodate learner needs. For that, the whole school would need to change.

Professional beliefs and attitudes towards inclusive education are very important, as their beliefs affect decisions regarding students who enter mainstream education. If professionals do not favour inclusion, then more children will just be integrated in mainstream education, rather than be included. It is important when trainings for professionals are designed to address beliefs and attitudes before and after and, in addition, establish a common understanding and clear guidelines towards inclusion.

Continuing professional development towards inclusive education

Available trainings in Latvia

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A crucial element in the development of inclusive practice is a better preparation of and support for teachers. According to the regulations of the Council of Ministers, the Republic of Latvia, No 569 "Regulation regarding teachers' mandatory education and vocational qualification, and teachers' professional competence development procedures" (2018), a general education teacher is responsible for his/her professional competence development and should attend professional competence development programmes of a least 36 hours every 3 year in total. Latvian pedagogues' professional competence development programmes (both free of charge and with a fee) on various topics, including inclusive education are implemented by several higher education institutions, special education development centres, vocational education competence centres, etc. According to the regulations of the Council of Ministers, the Republic of Latvia, No 187 "Regulations regarding the Criteria and Procedures for Granting the Status of a Special Education Development Centre to a Special Education Institution" paragraph 4.6 and 4.7, during a calendar year these institutions should organize at least two informative educational activities, including professional development events for teachers regarding inclusive education and assistance opportunities for learners with special needs and also should regularly inform about the events organized by special education development centres and their specific offers for improving teachers' professional competence. Usually these development centres offer 6-12 hour courses in inclusive education to mainstream school teachers and other interested persons. In turn, the higher education institutions offer 12-72 hour courses in inclusive education (usually for a fee). The development and improvement of course programmes takes place continuously, considering the suggestions and recommendations of teachers.

Available teachers' professional competence development programmes in Latvia

Training topic	Provider	Description
Technologies and their opportunities to reduce special pedagogical needs in the learning process for pupils with severe cognitive disabilities	Riga Lower Secondary School No 1 - Development Centre	A teacher professional competence development programme (A, 8 hours) provides practical advice on implementing Widgit symbols, how to use those symbols not only for a child with severe cognitive disabilities, but also, e.g., in daily routine, daytime organization, behaviour regulations in school environment to facilitate not only the acquisition of basic learning skills, but also reading skills, the ability to memorize a poem or song, as well as to perceive the main educational content (facts, regularities) in science.
Psychological pedagogical evaluation of the learner's intellectual development in the period from 7 to 12 years of age	Riga Lower Secondary School No 1 - Development Centre	A teacher professional competence development programme (A, 8 hours) provides answers to the following questions: ○ How will the form of the individual curriculum plan change? ○ How to draw up an individual curriculum for an educational programme? ○ How to implement it in a mainstream school?
Psychological and pedagogical evaluation of intellectual development of a pupil with learning disabilities in the period from 7 to 12 years of age	Riga Valdis Avotins Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) increases the teachers' professional competence to teach pupils with learning disabilities; presents the procedure, its results and analysis; promotes the ability to see the learner's resources and provide a feedback; teaches to create an individual educational programme acquisition plan; provides experience in organizing inter-institutional cooperation, creating productive changes in educational institutions without losing basic values.

Training topic	Provider	Description
Planning and conducting a pedagogical process for pupils with learning disabilities	Riga Valdis Avotins Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) raises the professional capacity of teachers who teach pupils with learning disabilities; presents the restructuring and management of the educational process; provides experience in the development of an individualized learning process and the use of technology to reduce special pedagogical needs; develops skills in organizing work of the school support team and introduces an assessment of performance progress of pupils with learning disabilities.
Strategies for managing, correcting and preventing aggression in pupils' behaviour	Koknese Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces the following topics: o The concept of behaviour. Factors influencing behaviour and its manifestations. o Assessment of pupils' behavioural problems and communication difficulties in an educational institution. o Aggressive behaviour, its causes and correction possibilities in an educational institution. o Possibilities of solving behavioural problems in an educational institution. Principles of complex correction of behavioural disorders. o The role of a supportive educational environment in the management of pupils' behaviour and personal development.
Diverse learning strategies for organizing a digital and meaningful learning process for	Koknese Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 6 hours) introduces such topics as: o Pupils with special needs in an inclusive education process.

Training topic	Provider	Description
pupils with special needs		○ Lesson models in organizing a meaningful learning process. ○ The use of a variety of digital tools to organize a modern and meaningful learning process for pupils with special needs. ○ Organization of a modern, competence-based educational process for pupils with special needs.
Pedagogical and correction work for the organization of a qualitative educational process in special education programmes	Koknese Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 6 hours) introduces the following topics: ○ Down syndrome, correction possibilities in teaching and upbringing process. ○ Sensory motor abilities - the basics of a child's comprehensive development. ○ The importance of the propaedeutic period in the educational process. ○ Didactic principles and a lesson's structure in special education programmes. ○ Possibilities of multisensory correction in the educational process. ○ Opportunities for developing life skills in the educational process for pupils with severe cognitive disabilities. ○ Competence-based learning within practical, real-life tasks.

Training topic	Provider	Description
Psychological pedagogical evaluation of pupil's intellectual development (procedure, results and their analysis, feedback, individual educational programme acquisition plan, organization of inter-institutional cooperation) in the period from 7 to 12 years of age	Koknese Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces the following topics: o Pupils with special needs. o Psychological pedagogical evaluation of the pupil's intellectual development, its results and analysis. o Development of an individual educational programme acquisition plan. o Possibilities of organizing inter-institutional cooperation for ensuring the educational process of pupils with special needs.
Planning and management of the pedagogical process (elements of individualized learning process, organization of school support team work, evaluation of the pupil's performance progress) for pupils with mental and severe mental development disorders, mental health disorders	Koknese Lower Secondary School - Development Centre	The following topics are considered in the A program for the improvement of teachers' professional competence (A, 8 hours): o Pupils with special needs - mental development disorders, severe mental development disorders and mental health disorders. o Elements of the individualized learning process for learners with special needs and the necessary support measures. o Evaluation of the dynamics of pupils with special needs performance. o Organizing educational institution's support team work.
Promoting intellectual, emotional, social and physical development of pre-school and primary school children	Jelgava Lower Secondary School "Valdeka" - Development Centre	A teacher professional competence development programme (A, 8 hours) is designed to increase the professional competence of teachers for promoting intellectual, emotional, social and physical development of pre-school and primary school children in the learning process, especially of children with various / multiple functional disorders. There is an opportunity for teachers to work

Training topic	Provider	Description
		practically and share experience, improve and try different methods that correspond to the child's skill level, to update alternative communication methods and peculiarities of children's sensory abilities development.
Planning and management of the pedagogical process for pupils with special needs	Jelgava Lower Secondary School "Valdeka" - Development Centre	A teacher professional competence development programme (A, 8 hours) is designed for mainstream school teachers and special education institution teachers as a support programme to introduce aspects of inclusive education and working with pupils with various / multiple disabilities helping to acquire new knowledge, practical methods that will promote the inclusion of pupils with special needs in the educational process.
An inclusive and supportive school - a curious and cheerful child	Jelgava Lower Secondary School "Valdeka" - Development Centre	A teacher professional competence development programme (A, 6 hours) is designed to promote a deeper understanding of inclusive education and to share examples of good practice. Special attention is paid to the latest trends and current activities in Latvia in the field of inclusive and special education, possible support to pupils and teachers. Creative workshops offer practical ideas and methodological techniques to teachers on how to organize the pedagogical process in a qualitative, innovative and interesting way, understanding the individual needs of each learner.
Successful implementation of inclusive education for pupils with various / multiple functional disorders	Jelgava Lower Secondary School "Valdeka" - Development Centre	A teacher professional competence development programme (A, 12 hours) is designed to improve the understanding of mainstream school teachers regarding pupils with various / multiple functional disorders. Teachers have an opportunity to improve their professional competence

Training topic	Provider	Description
		in organizing the learning process for pupils with various / multiple functional disorders. Applicable pedagogical methods and organization forms for pupils with various / multiple functional disorders will be presented. The ability to develop pupils' individual development plans, to establish cooperation with the support staff and family will be improved.
Inclusion of pupils with mobility impairments and postural weaknesses in sports activities in pre-school and primary school educational institutions	Jelgava Lower Secondary School "Valdeka" - Development Centre	A teacher professional competence development programme (A, 8 hours) is designed to improve the understanding of sports teachers in mainstream schools about physical development disorders. Teachers will have an opportunity to improve their professional competence in organizing the learning process for pupils with physical disabilities. Applicable pedagogical methods and work organization forms for children with movement disorders and postural weakness will be examined and studied.
Opportunities of using ICT and assistive technologies in organizing the learning process for pupils with mental disabilities	Middle Kurzeme Lower Secondary School - Development Centre	A teacher professional competence development programme (8 hours) provides answers to the following questions: ○ How can Widgit be used in lessons? ○ Is it possible to make developmental games using Widgit symbols? ○ How to use Go Talk whiteboards in mainstream schools?
Planning and management of the pedagogical process for pupils with special needs. Prevention and reduction of behavioural problems	Liepaja Livupe Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces the following topics: ○ Peculiarities of cognitive activities, emotions and sphere of will of children with special needs. ○ Development of individual educational programme acquisition plans, evaluation of implementation

Training topic	Provider	Description
		and planning of further pedagogical activities. ○ Opportunities of using didactic resources to support the learning process of pupils in an inclusive educational environment. ○ Behavioural problems, their prevention and reduction.
Opportunities of diagnosing special needs and implementation of the learning process for children with special needs in pre-school educational institutions	Liepaja Livupe Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces such topics as: ○ Use of pedagogical observation method in pre-school education. ○ Methods of diagnosing special needs for preschool children. ○ Pedagogical competence workshops (development of reading and mathematics skills, cognitive processes, use of ICT) ○ Children with autism in the educational process.
Development of cognitive processes, language and personality development for preschool children (with mental disabilities, language disorders)	Liepaja Livupe Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces the following topics: ○ Recognition of special needs of preschool children with mental development / language disorders in the pedagogical process. ○ Pedagogical methods for promoting the cognitive development of preschool children. ○ Manifestations of language and speech disorders in preschool age. Methods and techniques for language development. ○ Social and emotional upbringing of preschool children. Pedagogical psychological methods for promoting social and emotional development.

Training topic	Provider	Description
Planning and implementing pedagogical process for pupils with mental and severe cognitive disabilities	Liepaja Livupe Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces the following topics: o Clinical pedagogical differentiation of mental disorders and severe mental disorders. Methodology of pedagogical diagnosis of mental development disorders and severe mental development disorders. o Providing an educational environment and process for pupils with intellectual disabilities. Use of didactic methods and resources in the process of special education for children with mental disabilities. o Organization of pedagogical psychological support system in the process of inclusive education. Development, implementation and evaluation of individual educational programme acquisition plans.
Pedagogical and psychological support for children with special needs in an inclusive education environment	Liepaja Livupe Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 12 hours) introduces the following topics: o Inclusive education environment in pre-school educational institutions. o Positive solutions in upbringing and learning process. o Development of individual educational programme acquisition plans. o Alternative means of communication. o Availability of teaching/learning materials.

Training topic	Provider	Description
Inclusive education in mainstream schools	Cesis Berzaine Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) aims to provide the acquisition of the latest teaching methods through creative activities, deepening the understanding of children's emotional health. The programme introduces such topics as: ○ Emotional health, protective mechanisms in case of unpleasant emotions. ○ Non-formal education and educational games in inclusive learning at school. ○ Private lower secondary school "Patnis" teachers' experience in working with children with different diagnoses. ○ Inclusive approach in general education schools. ○ Working with parents.
Competence-based methods in language development in the context of inclusive education	Cesis Berzaine Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 6 hours) aims to provide an overview of the latest teaching methods through creative activities. The programme content includes: ○ Creative thinking methods in language learning. ○ Introductory game "Ice Breaking", for understanding the level of learning kinaesthetic games. ○ Creative methods for diversifying learning. ○ Use of video material - short films to develop critical thinking and imagination. ○ Types of cognitive communication and cooperation. ○ Pair work in 8 corners, promotion of creativity with natural materials. ○ Use of quizzes and photo materials in lessons.

Training topic	Provider	Description
		○ Positive pedagogy, etc.
Planning and implementing the pedagogical process for pupils with learning disabilities	Cesis Berzaine Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 6 hours) aims to promote teachers' competence for planning and managing the pedagogical process for pupils with learning disabilities. The programme introduces the following topics: ○ Support measures for pupils with learning disabilities and evaluation of pupils' performance progress. Methods and techniques. ○ Communication elements in promoting the development of learners using the principles of Marte Meo method. ○ Basic principles of class and group positive leadership. ○ Support team work in solving problem situations. ○ Learning the latest teaching methods through creative activities.

Training topic	Provider	Description
Technologies, including assistive technologies, and the opportunities to reduce special pedagogical learning needs in the learning process for pupils with mixed disabilities (pre-school) and combined disabilities, e.g., combinations such as cognitive disabilities + visual impairment, cognitive disabilities + hearing impairment; cochlear implants, etc.)	Daugavpils Stropu Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces the following topics: o Effective possibilities of modern methods and techniques to reduce special pedagogical needs in the learning process for children with special needs. o Use of support materials for pupils with mixed disabilities.
Improving the professional competence of teachers in working with pre-school and primary school age pupils and mixed developmental disorders	Daugavpils Stropu Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) introduces such topics as: o Peculiarities of development of pre-school and primary school age children and work methods and provision of support in adaptation in pre-school and primary school. o Montessori pedagogical techniques in the competence-based approach.
Improvement of teachers' professional competence in special education	Rezekne Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) for pre-school teachers includes the following topics: psychological and pedagogical evaluation of the intellectual development of 4-6 years old children, procedure and analysis of results, methodological provision of lessons and corrective measures. Work of teachers and support staff with parents. The same programme for mainstream upper secondary school teachers includes such topics as: Planning and managing the pedagogical

Training topic	Provider	Description
		process, organizing the work of the school support team, working with pupils with combined developmental disorders.
4-6 years old children psychological pedagogical evaluation of intellectual development, promotion of inter-institutional cooperation, planning and implementation of the individual education program, correction of children's development in a pre-school educational institution	Rezekne Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) is developed for teachers of pre-school education institutions who implement special education programmes for children with various (language, learning, mental development) disorders. Teachers improve their competence in the terms of importance of early diagnosis, the principles of creating an individual educational programme plan and its implementation, importance and promotion of inter-institutional cooperation.
Individualized pedagogical process planning and management for pupils with combined developmental disorders	Rezekne Lower Secondary School - Development Centre	A teacher professional competence development programme (A, 8 hours) is developed for teachers of mainstream schools to improve their competencies on the elements of an individualized learning process, the organization of school support team’s work and support measures for children with special needs.
Educational opportunities and integration of children	Valmiera Gauja Riverside Upper Secondary School -	A teacher professional competence development programme (A, 8 hours), the expected results: teachers understand

Training topic	Provider	Description
with hearing impairments in a mainstream school	Development Centre	the child with hearing impairment development characteristics, know and use multiple teaching/learning methods and techniques to provide education and inclusion of children with hearing impairment in the mainstream school.
Organization of a modern learning process for pupils with moderate to severe cognitive disabilities or several severe developmental disorders	UL FEPA Adult Pedagogical Education Centre	A teacher professional competence development programme (B, 72 hours, **with a fee**) is developed for teachers who do not have the necessary education for working with pupils with moderate and severe mental development disorders or several severe development disorders.
The most important features of the pedagogical process in working with children with mental disabilities, cognitive disabilities and learning disabilities	UL FEPA Adult Pedagogical Education Centre	A teacher professional competence development programme (B, 72 hours, **with a fee**) is developed for teachers without special education who implement the appropriate special education programme.
The most important features of the pedagogical process in work with pre-school children with special needs	UL FEPA Adult Pedagogical Education Centre	A teacher professional competence development programme (B, 72 hours, **with a fee**) is developed for teachers who have pre-school and primary education teacher qualifications.
Support for positive behaviour	UL FEPA Adult Pedagogical Education Centre	A teacher professional competence development programme (A, 36 hours, **with a fee**) is developed for mainstream school teachers and vocational education teachers.
Peculiarities of study work organization in a special educational institution (for children	Daugavpils University	A teacher professional competence development programme (A, 36 hours, **with a fee**) includes the following topics:

Training topic	Provider	Description
with severe mental disabilities)		○ Causes of learning and behavioural disorders in children with mental disabilities. ○ Topicalities of teaching children with learning and severe mental development disorders or several severe mental development disorders, main teaching principles and methods, organization of teaching and upbringing when working with such children. ○ Peculiarities of the learning process of children with developmental disabilities: stress as part of the process. Aspects of creating a psychologically coherent, emotional pedagogical environment.
Provision of methodological support for teachers working with pupils with special needs	Daugavpils University	A teacher professional competence development programme (A, 36 hours, **with a fee**) includes the following topics: ○ Possibilities of integrating a pupil with special needs in a mainstream school classroom. ○ Possible methods and techniques in the improvement of pupils' learning process. ○ Individual education plan, expected learning outcomes, activities of the support team at school, procedures for assessing the learning achievements, recommendations for further work.

Training topic	Provider	Description
Providing methodological support to teaching assistants in working with pupils with learning difficulties	Daugavpils University	A teacher professional competence development programme (A, 36 hours, **with a fee**) offers a model of cooperation of school's teaching staff who contribute to developing a collective class and all pupils' development considering their individual abilities and needs. Teacher assistant has to know and understand the origin each pupil's learning disorder, should be able to create conditions for development, therefore theoretical knowledge and many practical techniques are proposed that can be used at school.
Physical development and therapeutic exercises for musculoskeletal disorders. Corrective gymnastics. Effectiveness of correction and its use in children in preparatory groups	Daugavpils University	A teacher professional competence development programme (A, 36 hours, with a fee) includes the following topics: o Posture assessment methods, postural defects in the sagittal and frontal planes, the process of scoliosis formation. o Muscle testing. o Tasks of medical gymnastics and general principles of implementation. o Corrective gymnastics during sports lessons.
Topicalities of work organization and methodology in pedagogical correction classes for mainstream school teachers	Daugavpils University	A teacher professional competence development programme (A, 36 hours, **with a fee**) offers a model of cooperation for the school's teaching staff, who contribute to the development of creative activities based on pupils ' individual abilities and needs. Theoretical knowledge and practical techniques are proposed that can be used at school.

Training topic	Provider	Description
Organization and management of the pedagogical process for pupils with special needs	Daugavpils University	A teacher professional competence development programme (B, 72 hours, **with a fee**) is developed for teachers who work in programmes with children with special needs (learning disabilities, mental disabilities, cognitive disabilities, etc.) to obtain the official rights to implement special education programmes for children with learning disabilities, mental disorders, cognitive disabilities, etc.
The competence-based educational process implementing special education programmes	Rezekne Academy of Technology Lifelong Learning Centre	A teacher professional competence development programme (B, 72 hours, **with a fee**) aims to provide in-depth knowledge about pedagogical and psychological characteristics of pupils with mental disabilities, mental health problems, learning disabilities, to apply various classical, active and non-traditional methods to improve pupils' development and learning outcomes by implementing competence-based approach in the educational process.
Pedagogical support system for children with special needs in the context of inclusive education	Rezekne Academy of Technology Lifelong Learning Centre	A teacher professional competence development programme (B, 72 hours, **with a fee**) aims to provide in-depth knowledge to understand children with different disabilities, including learning difficulties, to create a support system to inclusive education in a mainstream school, to develop the skills to elaborate and implement individual education and correction programmes, as well as to apply different teaching methods, revealing and developing each child's abilities.

Training topic	Provider	Description
Creating an inclusive classroom in the learning process	Rezekne Academy of Technology Lifelong Learning Centre	A teacher professional competence development programme (A, 36 hours, **with a fee**) aims to provide in-depth knowledge about the organization of the inclusive learning process and possibilities of its implementation in a mainstream school; to develop skills to solve specific problems and build an inclusive classroom, reducing behavioural disorders, conflicts in the classroom, while promoting a change in teachers' attitudes and increasing their professional competence in working with different students.
Educating a child with developmental disabilities in the context of implementing the inclusive educational process	Rezekne Academy of Technology Lifelong Learning Centre	A teacher professional competence development programme (A, 36 hours, **with a fee**) aims to provide in-depth knowledge about opportunities of educating children with developmental disabilities, correcting or reducing their disabilities by implementing an inclusive educational practice, to develop skills to apply various classical, active and non-traditional methods in the inclusive educational process.
Children with developmental disabilities in the teaching/learning process of a pre-school educational institution	Rezekne Academy of Technology Lifelong Learning Centre	A teacher professional competence development programme (A, 36 hours, **with a fee**) aims to provide in-depth knowledge about the specifics of teachers' work with children with various developmental disorders, to introduce new methods, children's general development and correction work opportunities in general pre-school educational institutions; to provide knowledge and practical skills to implement a multisensory approach in work with pupils with severe mental disabilities or several severe disabilities, to explain the importance of cooperation between teachers and specialists (speech

Training topic	Provider	Description
		therapist, psychologist, special educator) in the development of individual abilities of pupils' with special needs in preschool educational institution.
Teacher's work in the aspect of implementing inclusive education in a mainstream school	Rezekne Academy of Technology Lifelong Learning Centre	A teacher professional competence development programme (A, 12 hours, **with a fee**) aims to educate teachers how to choose the optimal techniques and strategies implementing several educational programmes (including special education programmes) in the lesson at the same time.
Peer learning for literacy development	National Centre for Education of the Republic of Latvia	A teacher professional competence development programme (A, 18 hours) is developed and implemented in the European Social Fund project No 8.3.2.2./16/I/001 "Support for the development of learners' individual competencies". The programme enables participants to improve their understanding of Latvian pupils' achievements in reading literacy in an international context, promotes teachers' understanding of important conditions for the development of reading skills and their readiness to integrate them into their pedagogical activities. Teachers acquire in practice the peer learning methodology to develop reading skills, to model learning situations, to organize work for

Training topic	Provider	Description
		reading activities, to develop and facilitate pupils' assessment and self-assessment.

Some concrete cases

Teacher professional development courses at Riga Strazdumuiza Upper Secondary School - Development Centre

https://drive.google.com/file/d/1X8KVGGqhSX_6eNCzakaQY2oQtZ2SJwXi/view

Practice guide

https://www.izm.gov.lv/images/pedagogiem/Prakses-rokasgrmata-2017.docx&prev=search&pto=aue

City teachers learned inclusive education methods at Bikernieki Lower Secondary School

https://www.daugavpilsnovads.lv/pilsetas-pedagogi-apguva-ieklaujosas-izglitibas-metodes-bikernieku-pamatskola/

Inclusive education centres - support for parents and teachers https://www.youtube.com/watch?v=gY9PU_6jUfE

Available trainings in Bulgaria

Contributors: Andrean Lazarov (Marie Curie Association, Bulgaria), Prof. Dsc. Snezhana Ilieva, and Valeria Vitanova, PhD (Sofia University "St. Kliment Ohridski", Bulgaria)

To supplement the information provided in Chapter 5, we may add the following additional trainings:

- Smart Kids - Distance learning in kindergartens, didactic interactive games and situations for kindergartens - http://dechica.bg/za-detski-gradini/
- Training exercises - https://learningapps.org
- Cooperative educational games for tablets for the initial course of study, specially designed for the school environment. Their main pedagogical goal is to support the development of pupils' social skills - empathy, active listening, collective problem solving and conflict resolution, leadership and more - https://thepoppals.com/playonline
- SGSCC (Serious Games for Social & Creativity Competence) - www.games4competence.eu

Available trainings in Belgium

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

The following initiatives contribute to a continued professional development towards inclusive education.

Available trainings in Belgium

Training topic	Provider	Description (+ references/url)	Frequency	Price
M-decree	Flemish Government	The Flemish Minister for Education determines priority themes for supporting the implementation of educational reforms. For the academic year 2017-2018, the implementation of the M-decree is again central (measures for pupils with special educational needs). The training offers support to schools in the implementation of the M-decree and the competence development of the staff.	2017-2018	Free
M-Degree Survival Guide	GO!	https://pro.g-o.be/blog/Documents/5_M-decreet%20survival%20guide%2020151002.pdf	Online	Free
M-Decree Lexicon: Explanati	KlasCement	is an online course on the KlasCement platform to explain the details of the regulation. https://www.klascement.net/websites/52140/mdecree-lexicon-explanation-of-terms/?previous	Online	Free

Training topic	Provider	Description (+ references/url)	Frequency	Price
on of Terms				
Trainingsdag Inclusief Onderwijs	Unia	https://www.unia.be/nl/agenda/06-10-trainingsdag-inclusief-onderwijs	Online	free

Available trainings in Cyprus

Contributors: Marianna Gregoriou, Angelos Nicolaou and George Milis (EUROCY Innovations Ltd, Cyprus)

Professional Development in Cyprus

The Cyprus Pedagogical Institute (CPI), based on decisions of the Council of Ministers (August 2015, July 2017) for the Unified Policy Framework for Teacher Vocational Education, is the official training body of the Cypriot education system. The CPI mainly offers professional training courses to educators of all levels - pre-primary, primary, secondary, vocational - through a series of optional seminars.

Currently, in-service training provision has not evolved into structured practices. Moreover, there are no specific requirements for professional development that teachers need to meet to maintain their jobs and no agreed standards for in-service training programmes, while participation in courses does not have a significant impact on teachers' professional development, regarding their promotion processes. For some in-service seminars, attendance is compulsory, while for other seminars the attendance is encouraged, but not compulsory.

In-service training is mainly provided outside working hours. *"In Cyprus, where the main in-service provider is the Pedagogical Institute, this is an issue of concern, as the ambitious plan to train more than 11,000 professionals cannot realistically lie with one and only institution.*

The Cyprus educational system lacks the mechanisms for evaluating the impact of in-service training against any objectives".[116]

Types of seminars offered by the CPI

The CPI offers different types of training programs/seminars for teachers and parents, as listed below.

- School-Based Seminars: aim to support schools in their efforts to design and implement a unified school unit improvement plan that includes teachers' professional learning, among other things, to improve learning outcomes.
- Parents Seminars: aim to support parents as they are an important factor for school effectiveness. The seminars are held mainly in the afternoon and after consultation with the school unit.
- Secondary School Teacher's Day: schools adopt the idea of school-centred education, organizing, as a matter of priority, intra-school education to meet the educational needs of their teachers and the school.
- Two-day Primary Education Teacher Seminar: aims to train teachers based on their special needs and includes a central and in-school training.
- Optional Seminars: includes the training of teachers on an individual level, seeking to link theory to practical application in school units.

The contribution of teachers is crucial for accurate recording of training needs. For this purpose, teachers are asked to fill an electronic questionnaire regarding their training needs.

Other providers for seminars/workshops/conferences to professionals include different professional organizations, such as the speech therapy organisation, Universities, and private companies which provide different trainings mostly on specific Assistive Tools and Technologies.

[116] Karagiorgi, Y., & Symeou, L. (2006). Teacher professional development in Cyprus: reflections on current trends and challenges in policy and practices, *Journal of In-Service Education*, *32*(1), 47-61. doi: 10.1080/13674580500479968

Training/seminar topics for professionals in inclusive education

Some of the recent training topics are listed in the table below:

Training topics for professionals in inclusive education

Training topic	Provider	Description	Duration	Price
Special (Inclusive) Education	European University Cyprus	Online master's degree. Equips educators with innovative teaching methods and the ability to tailor instructions to pupils with special needs.	1 ½ year	9,120 euro /year
Technologies for Learning and Communication	European University Cyprus	Online master's degree. Prepares educators and administrators in the field to acquire expert knowledge and training in new technologies in Learning and Communication.	1 ½ year	9,120 euro /year
Differentiated Teaching Strategies and Applications in Primary Education	Cyprus Pedagogical Institute	A seminar for primary and secondary school teachers, which informs them on how to apply differentiated teaching strategies to serve the diversity of learners in primary and secondary education.	4 hours	free
Student Assessment: Basic Principles and Alternative ways of Assessment	Cyprus Pedagogical Institute	The educators learn alternative ways of performing learner assessments	4 hours	Free
Hopes Workshop	Cyprus Pedagogical Institute	The educators participate in different workshops that support self-development. The program has 5 themes: a) Positive Emotions, b) Values and Strength, c) Positive Purpose, d) Coping Positively and e) Positive Connections	4 hours	Free
CLIL – Learning for a better Future	Cyprus Pedagogical Institute	The educators learn how to apply the CLIL methodology in different subjects to teach language learning skills to their pupils. CLIL stands for Content Language Integrated Learning.	4 hours	Free

Training topic	Provider	Description	Duration	Price
The inclusion and integration of special needs children in general education	Cyprus Pedagogical Institute	The seminar is dedicated to school principals and aims to inform them on issues related to inclusion and integration of children with disabilities in the mainstream schools.	4 hours	Free
Theory and Reality: The modern dimension of ADHD	Cyprus Pedagogical Institute	Aims to inform and familiarize teachers with the modern dimension of Attention Deficit Hyperactivity Disorder (ADHD) and to acquaint teachers with modern pedagogical approaches and effective teaching strategies for children with ADHD.	4 hours	Free
Teacher-trainer program in the school unit on the use of Information and Communication Technologies (ICT) in the learning process for Primary Education	Cyprus Pedagogical Institute	Teachers undertake the commitment to carry out an action plan with training activities for the staff members of their school unit on the integration of ICT in the learning process.	4 hours	Free
ATS STEM Programme	Cyprus Pedagogical Institute	Teachers receive help to create lesson plans that best meet the needs of their pupils. The use of digital technologies is necessary to achieve this goal, as it will help create practical examples that show how new technologies can be used to enhance STEM skills in pupils. More information at: https://www.e-epimorfosi.ac.cy/index.php?id=257&cat=107&a=2	4 hours	Free
Civil Rights to Disability Rights: A Quest for civility in a Modern American Society	University of Cyprus	More information at: http://ucy.ac.cy/		

Training topic	Provider	Description	Duration	Price
The role of special educators in the school unit	University of Cyprus	More information at: http://ucy.ac.cy/		
Supporting Children in the General Class: The Role of the Special Educator	University of Cyprus	More information at: http://ucy.ac.cy/		
Primary Education Teachers, Co-Education, and Smooth Transition of Children from Kindergarten to Primary School.	University of Cyprus	More information at: http://ucy.ac.cy/		
Bricks for Autism	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	Lego based therapy for children in the autism spectrum.		
A workshop for Dyslexia	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	Identification of risk indicators in pre-school https://www.speechtherapy.org.cy/		€25 for professionals/€20 for university students
Autism seminar	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	A seminar on autism based on the model of Circles.		€120 for professionals/€80 for university students
Use of graphic symbols in Speech Therapy	Speech Therapy Organization of Cyprus (https://www.	Detailed description of the various graphic symbols and the practical methodology for their effective use in language programs in Speech Therapy and education in general.		

Training topic	Provider	Description	Duration	Price
	speechtherapy.org.cy/)			
Cerebral Palsy - the role of the speech therapist	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	More information at: https://www.speechtherapy.org.cy/		
Turning Risk Factors into Preventing Learning Disabilities	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	More information at: https://www.speechtherapy.org.cy/		€25 for professionals/€10 for university students
Augmentative and Alternative Communication: The assessment process of children with no speech	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	The purpose of this seminar is to familiarize participants with the various parameters included in the evaluation process and the existing tools available, both in Greek and in English.		€50 for professionals/€10 for university students
Distance seminar (webinar) on: "Telepractics - Teletherapy"	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	The aim of this seminar is to inform health professionals, teachers and those who wish to be trained in telecommunications-teletherapy, as a model of remote service. Emphasis on the importance of this method of treatment and how it can be applied in real time.		free
Webinar: "Application of Telepractics in Speech Therapy"	Speech Therapy Organization of Cyprus (https://www.speechtherapy.org.cy/)	The aim of this seminar is to inform speech therapists about "telepractics" and "teletherapy" as a model of providing speech therapy services remotely. Emphasis on the importance of this method for conducting speech therapy sessions and how it can be applied in real time. It is also emphasizing how speech pathologists can differentiate their material or create electronic material, accessible for		Free

Training topic	Provider	Description	Duration	Price
		their treatment. All the necessary conditions and general instructions for the application of this method are described.		

What does it mean – inclusive teaching into practice? (Peer learning cooperation – how it can be implemented in the classroom, in what conditions, environment settings etc.)

Introduction

Contributors: Dita Nimante and Gunta Silina-Jasjukevica (University of Latvia, Latvia)

In the latest international scoping review on teacher agency for inclusive education by Miller et al. (2020) revealed that student centred supports, differentiation, flexible grouping, curricular supports, collaboration and family-school partnerships are key areas in which teachers can utilise agentic actions to advance inclusive education for students with disabilities.[117] Collaboration with other teachers, support specialists, administration has high importance, as teachers work alone, it is insufficient to insure access to inclusive education for students with disabilities[118].

Latvia

Contributors: Dita Nimante and Gunta Silina-Jasjukevica (University of Latvia, Latvia)

Peer Literacy Development Programme (VIMALA) (Project no. 8.3.2.1./16/I/002 Implementation of national and international measures for the development of learners'

[117] Miller, A.L., ,Wilt, C.L., Allcock, H.C., Kurth, J. A., Morningstar, M. E. & Ruppar, A. L. (2020). Teacher agency for inclusive education: an international scoping review. *Journal International Journal of Inclusive Education*. doi: 10.1080/13603116.2020.1789766

[118] Miller, A.L., ,Wilt, C.L., Allcock, H.C., Kurth, J. A., Morningstar, M. E. & Ruppar, A. L. (2020). Teacher agency for inclusive education: an international scoping review. *Journal International Journal of Inclusive Education*. doi: 10.1080/13603116.2020.1789766

talents, Project no. 8.3.2.2./16/I/001 Support for the development of learners' individual competencies)

The aim of the project is to ensure the diversity of Latvian educational services based on the development and implementation of an individual learning approach in general education institutions, thus improving learners' competences and learning achievements. The methodological material for promoting early reading and meaningful reading describes a universal literacy program that can be used by teachers and pupil families. The literacy promotion tasks presented in the material are based on the analysis of good practice in the world in promoting literacy and reading pleasure, obtained by participating in teacher training courses, conferences and summarizing research results on the implementation of successful peer learning programs in the scientific literature.

The material offers methods for involving pre-school children and pupils in the development of reading skills. The methods are based on peer-assisted learning strategies. This material will be useful for anyone who wants to use peer learning in the context of literacy development. Available at https://atbalstsizcilibai.lv/lasit

The effectiveness of the Peer Literacy Development Programme (VIMALA) is ensured by several factors:

- peer cooperation;
- social learning;
- can be used in different learning environments, as well as combined with other approaches and programmes;
- promotes the development of leadership and communication skills.

Cyprus

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Inclusive teaching into practice

Inclusive teaching should recognize and value student diversity and enable all students with access to the curriculum, giving them the opportunity to fully participate and demonstrate their knowledge in the assessment process.

Teachers should create the conditions for all pupils to be able to fully participate and learn, making certain adaptations and creating enabling environments by removing any barriers that prevent pupils from learning. They should also adapt their teaching materials and methods for all pupils to be able to follow the curriculum and should accommodate each pupil's needs according to their IEP.

Teachers should be in position to have positive relationships with each other and with pupils and their parents. Teachers, parents, and external professionals who work with pupils should act as collaborators and have a common understanding and work towards specific, well defined objectives for pupils, which would help their progress. Teachers should value parents' opinion and take their suggestions into consideration, since parents can cooperate with the school and provide their insights related to pupils' general behaviour, qualities they have noticed, struggles, etc. Such information would be very useful to be considered when taking decisions regarding the individual educational plan for each pupil.

Take, for example, a pupil who lacks speech, who is being trained by an external professional (speech therapist) on how to use an Alternative Augmentative Communication (AAC) System, since they cannot use the verbal language. The pupil might perform well during the training, when using AAC with the speech therapist, but he/she should have the opportunity to use the system as an alternative way to communicate at school, at home, in different environments, etc. The pupil should fully understand that using this tool they can communicate, or else the pupil will perceive it as an activity used by the speech therapist and this will limit the opportunities for inclusion. For this reason, a collaborative approach with teachers, external professionals and parents is very useful for the pupil's progress and inclusion in general.

Peer collaboration into practice

Peer collaboration can be very effective among students, but also among teachers. An environment enabling peer collaboration helps pupils work in small groups and in pairs. Wealther-Thomas et al. (2000) suggest that “teachers should be utilizing different teaching methods, such as interactive teaching, using different ways to present, review and monitor instructions”.[119] When there is the option to have an extra teacher, one can teach and the other can monitor specific pupils (if they follow). Pupils should be divided in mixed groups and each co-teaching partner should teach the same material to one of the groups. Teachers can create teaching stations, with small groups of pupils rotating to various stations for instructions or practice.

Teachers can benefit from peer learning, since they can use this method not only during their teaching, as seen above, but also as a general philosophy in their practices. For example, they might have a channel to exchange good practices or to discuss any concerns they have regarding their pupils. They can use this to exchange educational material and other resources, this being helpful for all the staff, allowing them to gain more knowledge and optimism regarding their cases and inclusive practices. This could also save them time from creating materials from a scratch or researching for resources.

Peer collaboration allows teachers to work as a team towards creating a more inclusive environment for all pupils at school. Together they have more power and might take decisions regarding the structure of their classrooms and the whole school environment to make it more inclusive. For example, this can be providing different areas that will support pupil inclusion. An idea is to use colour coding in certain areas of the school that will mean that one area would be for relaxing (for those pupils who might feel overwhelmed with the noise), another area would be for gardening, another area would be for sensory activities, etc. Such an environment would allow more pupils to feel included.

[119] Walther-Thomas, C., Korinek, L., McLaughlin, V. L., & Williams, B. (2000). *Collaboration for inclusive education: Developing successful programs.* Boston: Allyn & Bacon

Universal design and ICT into learning

Implementation of a universal design can make learning more accessible. For example, the curriculum can be made more accessible by allowing the pupil to choose between multiple ways of assessment (writing exam, oral exam, assignment, etc.). There are flexible ways of pupil engagement in learning, such as the use of multimedia and other techniques, e.g., role playing, using assistive tools in activities (educational robots or voice recorder products, etc.). The teaching content could be presented using oral and visual strategies.

Pupils should be able to access the material in different forms. For example, providing the material in PDF form makes it accessible for those pupils who rely on text to speech technologies, or they prefer to convert and print their materials in Braille form. Moreover, pupils with reading difficulties that prevent them from participating should be able to access the material supported with symbols in the place of the words that they struggle to read.

Learning should be supported by actively involving pupils in activities. For example, using gesture recognition technologies can allow pupils to interact with a story using full body gestures. A study shows this “maintains excitement among young children, as they are becoming an active part of a story experience”.[120] This method could be beneficial and for those learners who want to be on the move or those who rely on gestures to communicate. (Banes et al, 2019)

More details on the universal design can be found on the website of the Centre for Applied Special Technology at: http://www.cast.org/udl

[120] Banes, D., Hayes, A., Kurz, C., & Kushalnagar, R. (2019), Using Information Communications Technologies (ICT) to Implement Universal Design for Learning (UDL).

Belgium

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

In Flanders, inclusive education shaped based on several political implications. The main initiatives came with the GON and ION Guidance process. GON (Geïntegreerd Onderwijs) was a first educational regulation to provide integrated education under the guidance of special education. Later, ION (Inclusief Onderwijs) aimed to sustain inclusive education in mainstream education. Currently, the M-Decree provides the latest implications on inclusive education.

The M-Decree brought a big chance to make the Flemish education system more inclusive. It recommends to enrol children with special needs in mainstream education in the first phrase. If it is not possible, the CLBs provide extra supports to pupils and teachers to include these pupils partly. Many children with special needs can be catered for in mainstream schools. Some schools have a permanent staff member who is a special needs expert. Schools can apply for funding to pay for additional staff, special equipment, or teaching materials which will allow them to accommodate children with special needs. This may also extend to providing additional help for children who do not speak the main language of instruction.

All schools remain in close contact with parents via a system of notes, assessments, and parent/teacher consultations. Children with special needs are assessed even more closely. Parents have the right to ask for reviews or assessments if they have concerns for their child. The class teacher will normally undertake initial assessments but more detailed tests to assess speech and language development may be necessary.

Theory – Universal design for learning

Inclusive teaching is a combination of the range of approaches that consider the diverse needs and backgrounds of all pupils to create a learning environment where all pupils feel valued and where all pupils have equal access to learning.

The learning environment directly correlates with learning outcomes. A pupil’s sense of belonging predicts motivation, engagement, and achievement which evolve around the

learning environment. Incorporating inclusive teaching practices create a learning environment where:

- Teachers develop supportive relationships with pupils;
- Teachers decrease the potential for incivility and unproductive conflict;
- Pupil participation and engagement increases;
- Pupils are more likely to take intellectual risks, persist with difficult material and retain learning across contexts.

Teachers can ask for external support and use alternative materials to make their classrooms more inclusive. Inclusive classroom means not only providing accessibility to pupils with disabilities but also encourage and motivate other pupils who do not have disabilities to help their peers and learn together.

Teachers may struggle to control both groups and sustain harmony among them. However, they can use some informative and practical resources to plan their steps through the inclusive classroom.

Universal Design for Learning [121] helps teachers to:

- Create a welcoming, respectful learning environment;
- Determine essential course components;
- Communicate clear and high expectations and provide constructive feedback;
- Provide natural supports for learning to enhance opportunities for all learners;
- Use teaching methods that consider diverse learning preferences, abilities, ways of knowing, and prior experience and knowledge;
- Offer multiple ways for pupils to demonstrate their knowledge;
- Promote respectful interaction among students and between you and the students (e.g. student feedback).[122]

[121] Universal Design for More Inclusive Pedagogy Checklist. http://ucat.osu.edu/wordpress/assets/UDL-self-assessment-handout.pdf

[122] Chickering, A. W., & Gamson, Z. F. (1999). Development and adaptations of the seven principles for good practice in undergraduate education. *New directions for teaching and learning*, *1999*(80), 75-81.

Practice

The study of de Boer shows that typically developing learners generally hold neutral attitudes towards peers with SEN. It also concluded that pupils with moderate to severe cognitive impairment and behavioural problems are more vulnerable in terms of negative attitudes of peers. Pupils were particularly negative towards peers with behavioural problems because of their non-typical behaviour.[123] There are two ways of peer learning. First is cooperative learning which allows pupils to work and learn together in sustainable groups. The second is peer tutoring which means that pupils teach each other within or out of the class.

Peer work effect can be observed as the good examples mentioned above. Both “GO!” and “Bilingual Classes for Deaf and Hearing Students”[124] projects emphasise the importance and benefits of peer learning for pupils with and without disabilities. It helps them to adapt expeditiously and increase their social skills. Peer work motivates children with disabilities and gives chances to pupils without disabilities to get in contact with their friends.

In addition to that, peer learning helps teachers to improve their missing points in case of special education. This is also illustrated by the previously described examples of “Power of co-teaching in the M-Decree” and “Teacher of the year 2019 are 3 co-teachers”[125]. Peer learning can help teachers to benefit from their colleagues’ experience and ask their help to have an inclusive classroom.

[123] De Boer, A., Pijl, S. J., & Minnaert, A. (2012). Students’ attitudes towards peers with disabilities: A review of the literature. *International Journal of Disability, Development and Education*, *59*(4), 379-392.

[124] UNIA, Inspiration and Good Examples. https://www.unia.be/nl/actiedomeinen/onderwijs/inclusief-onderwijs/inspiratie-en-goede-voorbeelden

[125] UNIA, Inspiration and Good Examples. https://www.unia.be/nl/actiedomeinen/onderwijs/inclusief-onderwijs/inspiratie-en-goede-voorbeelden

Tools as used in Flanders

From clear guidelines to compelling documentaries and self-reflection tools, many organizations have developed useful tools to put inclusive education into practice.

We focus here especially on the “Index for Inclusion” (Index voor Inclusie) as released in 2015[126]. The Inclusion Index provides a practical tool to support the start and implementation of a more inclusive policy as a school.

The book is scientifically grounded and is based on the insights of school teams, pupils, parents/guardians, school boards, and the local community. The Index has now been translated into 39 languages and is used in more than 40 countries. A wide network of schools around the world have developed their examples of good practice.

The Index for Inclusion[127,128,] was originally developed by Mel Ainscow and Tony Booth, after which Ipass UC Leuven Limburg produced the Dutch translation in collaboration with Hogeschool Utrecht and AP Hogeschool Antwerpen.

Using the Index for Inclusion, schools are guided to embark on a more inclusive course. The Index for Inclusion provides schools with a practical tool for increasing diversity to support the process towards inclusive education. Currently the fourth edition of the “Index for inclusion” by Booth and Ainscow[129] is available for purchase.

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[126] Booth, T. & Ainscow, M. (2015). *Index voor inclusie werken aan leren en participeren op school*. https://www.bol.com/nl/f/index-voor-inclusie/37124020/

[127] Booth, T. & Ainscow, M. (2002). *Index for inclusion: Developing learning and participation in schools* (2nd ed.). United Kingdom: Centre for Studies on Inclusive Education. https://www.eenet.org.uk/resources/docs/Index%20English.pdf; http://www.csie.org.uk/resources/inclusion-index-explained.shtml

[128] Booth, T. & Ainscow, M. (2015). *Index for inclusion: Developing learning and participation in schools* (3rd ed.). United Kingdom: Centre for Studies on Inclusive Education.

[129] Booth, T. & Ainscow, M. (2016). *Index for inclusion: A Guide to School Development Led by Inclusive Values Spiral-bound* (4th ed.). United Kingdom: Centre for Studies on Inclusive Education. https://www.amazon.co.uk/Index-Inclusion-School-Development-Inclusive/dp/0993512208/ref=pd_lpo_14_t_0/258-6543271-2495427?_encoding=UTF8&pd_rd_i=0993512208&pd_rd_r=566370f6-56c8-4f89-b26b-

This completely revised and expanded edition not only adds indicators and questions that guide the process of inclusion in the school, as it can take shape when the M-decree is introduced. It also offers compelling proposals for a cross-curriculum that connects sustainable education and diversity.

With more than 80 indicators and a thousand questions, the Index offers an inexhaustible source of ideas for school teams. This way, you build year after year on a sustainable school plan and innovative classroom practice for more inclusion. The process of the Index can also be found in this book.

The book has 190 pages and is published in a ring binder with a sturdy cover.

Examples

A string of good inclusive teaching examples can be found at https://www.unia.be/nl/actiedomeinen/onderwijs/inclusief-onderwijs/inspiratie-en-goede-voorbeelden. This page highlights some schools that show how they are already working on inclusion today, using 11 real-life examples from Flanders but also from other countries such as Finland and Canada.

Bulgaria

Contributors: Andrean Lazarov (Marie Curie Association, Bulgaria), Prof. Dsc. Snezhana Ilieva, and Valeria Vitanova, PhD (Sofia University “St. Kliment Ohridski”, Bulgaria)

The implementation of inclusive education in practice is based on the following main approaches - community, systematic and rights-based approach. These approaches identify the needs and resources of all key groups in the community and plan the implementation

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based on strengths and tailored interventions. Different measures are combined in order to build a comprehensive school policy for the integration of children and a wide network of support in the extracurricular environment for integrated learning. These measures are related both to forms of improving the skills and opportunities for interaction between different groups (children, teachers, parents etc.) and to building a supportive material and learning environment that includes inclusive education. A special focus in interventions for children is researching the needs of the specific child and directing a suitable package of support measures; individual training plans; application of various forms and methods of education in accordance with the general or current condition of the child; adaptation of educational content; individual work with a speech therapist and psychologist; active involvement of the child together with other peers in different extracurricular activities. Initial and additional training, supervision and support in the process of work are provided for teachers. Groups for self-development, mutual learning and support have been set up for parents in several places in Bulgaria.

The following can be included in the programme of further training of teachers in the field of inclusive education:

- Information campaigns in the community, helping to overcome prejudices, stereotypes and negative public attitudes towards children with special educational needs.
- Trainings of teachers and pedagogical specialists from kindergartens and schools for work with children with SEN plus development of auxiliary educational software.
- Interaction and support of parents of children with SEN - "School for parents", classes for mutual assistance, support and exchange of information on various topics and issues.
- Working model for interaction among various key institutions - local NGOs, municipality, social service providers, schools, citizens and professionals.
- Use of specialized didactic materials for working with children with SEN.

The Orff-Schulwerk approach, as an active form of work, includes several elements, builds contact and trust in the form of playing with musical instruments and thus develops communication. Children respond to the rhythm, movement and music. Music therapy is entertaining for both children and adults, fights stress and emotional disorders, creates a sense of belonging to the group and helps to unite quickly and build trust, albeit non-verbally.

Music therapy allows children with SEN to use different ways of communication - gesture, facial expressions, and musical instrument. Music therapy work involves emotionally, stimulates them to communicate and not remain isolated. Music is an excellent tool for adaptation and communication, it unlocks children emotionally - it emphasizes their strengths.

The use of fairy tales and the play of fairy tales create an environment in which children, through personal and general experience of different feelings such as trust, patience, empathy, friendship, build skills for sharing and respect for difference. Involving children with special educational needs in recreating different fairy tales focuses on their abilities and potential, not on their deficits. In this way, the inclusion of children with disabilities is supported, especially in the early period of their personal development. Role-playing, dramatization, teamwork help them learn while having fun. Their peers, in turn, learn to accept differences and to manifest all universal values in a natural way in the daily process of interaction. Activities related to public expression, as well as joint activities with parents, provoke children to give their best, to develop confidence and satisfaction with the results achieved. Group work with teachers develops skills for better communication with other children in the group, as well as improves communication among children themselves. After a case study and instructions, the participants in the group compose a story on their own, aimed at building confidence and tolerance in the relationship. Tales composed by parents and teachers are also used to develop and affirm values such as faith, kindness, empathy, tolerance in children. After a discussion and re-creation of favourite moments from the story through role-playing, there is a drawing of the character who is most helpful or who needs help.

Peer modelling is another support that can be used to help pupils learn academic, process and classroom routines. It also provides the classroom teacher opportunities to use peers to assist with instruction, clarifying directions and giving social reminders with little or no disruption to the lesson cycle. It is an excellent way for peers to provide appropriate behavioural models of pupils who need to improve their social skills. The power of peers as shown here has a cumulative effect, which makes issues such a bullying incompatible. Rather, we have peers helping peers become more integrated into the school culture. There have been a number of inclusive schools where the classmates and adults together have created a school system where everyone can be celebrated.

We can summarise the benefits of peer learning for both pupils with and without disabilities as follows:

Benefits for pupils with disabilities

- Friendships;
- Increased social initiations, relationships and networks;
- Peer role models for academic, social and behaviour skills;
- Increased achievement of learning goals;
- Greater access to general curriculum;
- Enhanced skill acquisition and generalization;
- Increased inclusion in future environments;
- Greater opportunities for interactions;
- Higher expectations;
- Increased school staff collaboration;
- Increased parent participation;
- Families are more integrated into the community.

Benefits for pupils without disabilities

- Meaningful friendships;
- Increased appreciation and acceptance of individual differences;
- Increased understanding and acceptance of diversity;
- Respect for all people;
- Prepares all pupils for adult life in an inclusive society;
- Opportunities to master activities by practicing and teaching others;
- Greater academic outcomes;
- Needs of all pupils are better met, greater resources for everyone.

Effective and innovative study materials that support the implementation of inclusive education and how to create them

Latvia

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In accordance with the Council of Ministers, the Republic of Latvia, Regulation No 187 “Regulations Regarding the Criteria and Procedures for Granting the Status of a Special Education Development Centre to a Special Education Institution” paragraph 4.4, these institutions should develop at least two teaching or methodological support materials to facilitate the inclusion of learners with special needs in the educational process and publish these materials on the website of the special education institution or in other publicly available media. Methodological materials created by the development centres of special educational institutions can be used by teachers of mainstream schools to provide support to learners with special needs in the learning process. Links to the methodological materials elaborated by those educational institutions - development centres are provided below:

1) Cesis Berzaine Lower Secondary School - Development Centre:

- In the field of languages https://www.csip.lv/valodas/
- In the field of natural sciences https://www.csip.lv/tehnologiju-un-zinatnu-pamati/
- In the social and civic field https://www.csip.lv/cilveks-un-sabiedriba/
- Cultural awareness and self-expression in art field https://www.csip.lv/maksla/
- In the field of mathematics https://www.csip.lv/matematikas-joma/
- For preschool https://www.csip.lv/pirmsskola/
- Video materials https://www.csip.lv/videomateriali/
    - Strategies and practical experience as support for children with reading and writing disorders
    - The basic elements of Marte Meo – communication that promotes development

2) Daugavpils Stropu Lower Secondary School - Development Centre: http://dspac.lv/musu-pedagogu-metodiskas-izstradnes

3) Riga Strazdumuiza Upper Secondary School - Development Centre: https://strazduskola.lv/atbalsts/

4) Riga Lower Secondary School No 1 - Development Centre: http://www.r1sips.edu.lv/attistibas-centrs/metodiskie-materiali/

5) Riga Valdis Avotins Lower Secondary School - Development Centre: http://www.rvapsac.lv/attistibas_centrs/metodiskie.html

6) Koknese Lower Secondary School - Development Centre: http://www.ksip-ac.lv/lv/metodiskais-dienests-263151/metodiskie-materieni

7) Jelgava Lower Secondary School "Valdeka" - Development Centre: http://jpskvaldeka.lv/metodiskie-materiali/

8) Middle Kurzeme Lower Secondary School - Development Centre:

- A catalogue of methodological materials http://www.viduskurzeme.lv/wp-content/uploads/2018/03/katalogs.pdf
- Digital materials http://www.viduskurzeme.lv/metodiskie-materiali/
- Electronic materials http://www.viduskurzeme.lv/elektroniskie-macibu-materiali/

9) Liepaja Livupe Lower Secondary School - Development Centre: http://www.livupe.edu.lv/c229/mcbu-un-metodiskie-atbalsta-materili/

10) Valmiera Gauja Riverside Upper Secondary School - Development Centre: https://vgv.lv/attistibas-centrs/metodiskie-materiali/

11) Kuldiga Pre-school Educational Institution "Bitite" - Development Centre: http://bitite.kuldiga.lv/par-mums/attistibas-centrs/

The Autism Society of Latvia aims to improve the quality of life for people with autism (ASD) and serves as a platform for people with autism and their parents to support, learn, share and advise on their experience related to ASD providing many useful materials http://www.autisms.lv/index.php/lv/materiali. The Association “Social Innovation Centre”,

implementing the project “Fascinating ICT Tools for People with Disabilities” funded by the Lifelong Learning Program Leonardo Da Vinci, has elaborated an informative material on the use of art therapy elements in special pedagogy: http://socialinnovation.lv/wp-content/uploads/2014/10/makets-webam.pdf. Several teacher professional competence development programmes for elaborating and designing interactive study materials are offered to teachers in Latvia.

Teacher professional competence development programmes for elaborating and designing interactive study materials in Latvia

Training topic	**Provider**	**Description**
Opportunities of organizing various forms of study work and elaboration of study materials with training software SMART Learning Suite	Baltic Office Technologies Ltd.	Teachers' professional competence development programme (A, 18 hours). Teachers improve their understanding of the meaningful use of technology in different teaching/learning organizational forms. Teachers learn how to create study materials with SMART Notebook and how to use SMART LAB (lesson activity builder) for providing a quick feedback. Programme participants learn how to use mobile devices to assess pupils' knowledge with SMART Response 2. Interactive study materials should be elaborated using the acquired knowledge and skills and uploaded in the study materials section https://smartboard.lv/macibu-materiali/.
Elaborating and designing interactive learning materials in SMART Notebook environment	Baltic Office Technologies Ltd.	Teachers' professional competence development programme (A, 12 hours). Teachers improve their ICT skills in elaborating and designing diverse interactive learning materials using SMART Notebook environment that will promote learner involvement in the learning/teaching process and increase the effectiveness of the lesson. After the courses, teachers should independently elaborate study materials using SMART Notebook and upload in the study materials section of www.smartboard.lv. This programme is suitable for beginners working with SMART Notebook.

Differentiation with SMART Learning Suite online	Baltic Office Technologies Ltd.	Teachers' professional competence development programme (A, 6 hours). Teachers improve their ICT skills in implementing personalized approaches to each learner. They learn how to prepare study materials using SMART Notebook software, the interactive tool SMART LAB (lesson activity builder) and the assessment application SMART Response 2, which pupils can use individually or in small groups when working with smart devices. With SMART Learning Suite, teachers can work online and take a differentiated approach to learning.
Improvement of general computer skills. Effective use of information technologies in elaboration of interactive study materials	Daugavpils University	Teachers' professional competence development programme (18 hours). Teachers improve their general computer skills for effective use of ICT to elaborate interactive study materials (presentations, images, multimedia, Internet, etc.). There is a pre-post-test implemented online (before and after the programme).
Support materials for inclusive education developed in the project "The creation and implementation of support programs for the youth at the risk of being subjected to social exclusion, for the creation of a support system" (1DP/1.2.2.4.1/09/IPIA/VIAA/003).	University of Latvia	Guidelines for inclusive education for teachers were developed: ○ Support programme for the development of socio-emotional competence; ○ Programme - Support for positive behaviour; ○ Mentoring programme for pupils under the risk of social exclusion; ○ TV shows "I and a school" (Es un skola). These videos can be found on YouTube https://www.youtube.com/watch?v=6PNAwpbPQoc

Bulgaria

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Important national action in that sense is the "Inclusive Ambassadors"[130] initiative, which aims to train the so called "inclusive education ambassadors" – teachers, trainers, psychologists, resource tutors who can support the development, implementation and mainstreaming of successful inclusive education practices. The approach is following the universal design of learning which will enable accessible provision of education to all pupils with and without disabilities.

It provides four tangible outcomes[131], which enable further training of teachers on the implementation of inclusive education:

- Principles, beliefs and role of the inclusive education ambassadors guide[132, 133];
- Handbook "How to strengthen the implementation of the inclusive education at mainstream schools?"[134];
- Guide for setting up and delivery of cross-school peer support[135];

[130] Erasmus+ project "Training of teachers as inclusive education ambassadors" (2018-2020). https://inclusive-ambassadors.eu/

[131] Intellectual outputs of the Erasmus+ project "Training of teachers as inclusive education ambassadors" (2018-2020). https://inclusive-ambassadors.eu/outputs-downloads/

[132] Principles, beliefs and role of the inclusive education ambassadors guide. September, 2019. Annex 1 "Consolidated survey results". https://inclusive-ambassadors.eu/wp-content/uploads/2020/06/Annex-I-CONSOLIDATED-SURVEY-RESULTS.pdf

[133] Principles, beliefs and role of the inclusive education ambassadors guide. May, 2020. Annex 2 "Distance inclusive education in the context of COVID-19". https://inclusive-ambassadors.eu/wp-content/uploads/2020/06/Annex-2-DISTANCE-INCLUSIVE-EDUCATION-IN-THE-CONTEXT-OF-COVID-19-EN-version.docx

[134] Handbook "How to strengthen the implementation of the inclusive education at mainstream schools?" https://inclusive-ambassadors.eu/elearning/course/view.php?id=4

[135] Guide for setting up and delivery of cross-school peer support. https://inclusive-ambassadors.eu/elearning/course/view.php?id=5

- Mobile app for blended learning and cross-school networking and communication[136].

At the heart of chapter “Building an Inclusive School Environment: Principles and Practices”[137] is the methodology for building an inclusive environment, called the “One School for All” Model, and its application in practice. The course introduces the principles of school organizational development and change, which are the basis for building an inclusive school environment, as well as the theoretical and practical dimensions of the Model "One school for all". The training for work on the Model includes getting acquainted with the basic principles for its successful application and practical work with the tools for its introduction at school. The course is designed for principals, teachers and school teams who want to work actively and purposefully in the direction of building an inclusive environment.

The Partnership with Parents course aims to support teachers in building more fulfilling partnerships with parents. It provides information on common parental behaviours that challenge each teacher's work, offers psychological explanations, new approaches, different perspectives on thinking, and principles that can be followed to facilitate daily work with parents.

The course is designed for teachers of all educational stages. It is also suitable for principals, deputy principals, pedagogical advisors, school psychologists, resource teachers, students of pedagogy and special pedagogy.

As supplement to this we can also recommend the course “Pedagogical practices for the first grade. Inclusive Teacher's Guide“[138], which aims to support teachers in their mission to teach pupils to read, write and think, to motivate them, to help them grow confident in their abilities,

[136] Mobile app for blended learning and cross-school networking and communication. https://play.google.com/store/apps/details?id=com.inclusiveambassadors.mobile

[137] Principles, beliefs and role of the inclusive education ambassadors guide. September, 2019. Annex 1 “Consolidated survey results”. https://inclusive-ambassadors.eu/wp-content/uploads/2020/06/Annex-I-CONSOLIDATED-SURVEY-RESULTS.pdf

[138] *Педагогически практики за първи клас. Пътеводител на приобщаващия учител* [Pedagogical practices for first grade. Inclusive Teacher's Guide]. https://www.ela-bg.eu/bg/online-kurs-pedagogicheski-praktiki-za-purvi

to feel part of the community that accepts and supports them. While performing this mission, teachers often see many signs of problems and difficulties. With this course we would like to facilitate their timely and correct capture and reading. An important aspect of the learning process is the emotional development of learners. Therefore, this course pays special attention to the emotional well-being, as well as techniques that teachers can use to support it. The course is designed primarily for primary school teachers, and would be useful for teachers, resource teachers, students of pedagogy and special pedagogy.

The recent handbook, developed by University of Plovdiv “P. Hilendarski” on “Challenges of the inclusive education in Bulgaria”[139] could be very useful for practitioners and teachers in Bulgaria.

Belgium

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

Learning and teaching materials (LTM) are an essential part of the education system. In the special education and inclusive education system, these materials can be vital. For instance, as observed in Belgium case, policy implementations can change very quickly and the adaptation period can be full of struggling for both pupils and teachers. In this regard, learning materials can help teachers to determine the right path and support pupils to follow this path safely.

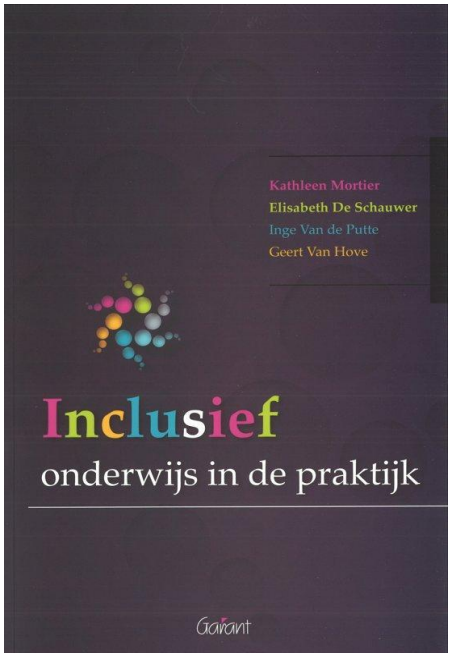
Besides, quality LTM can compensate for disabling factors such as large class sizes, poorly trained or unqualified teachers, the shortage of instructional time, high levels of illiteracy among parents, and the lack of reading materials at home.

[139] Challenges of the inclusive education in Bulgaria. https://uni-plovdiv.bg/uploads/site/pedagogy/Elektronna%20biblioteka%20-%20sbornici/Predizvikatelstva/Priobshtavashto_sbornik2_ok.pdf

Books

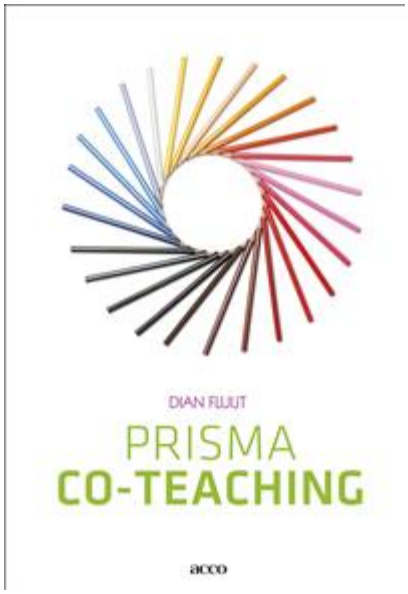
Some good materials that are being used in inclusive education in Flanders are listed below.

Inclusive education in practice by Mortier, Kathleen; Schauwer, Elisabeth; Van de Putte, Inge; Van Hove, Geert.



This book provides information for anyone who wants to delve into the practice of inclusive education. First, a definition and a framework are outlined in which inclusive education can be situated. Many points of attention are given for the benefit of teachers who want to use this material in a study programme. This is followed by nine chapters in which a critical factor is elaborated and illustrated from a case study in nursery, primary, and secondary education. At the end of each chapter, some reflection questions encourage the analysis of one's own looking and acting and the search for possibilities in concrete and unique class situations.

Prisma co-teaching: appropriate towards integrative education by Fluijt, Dian



Prisma Co-Teaching is a method that responds to dealing with an increasing diversity in classes and schools. Several education professionals jointly take responsibility for a group of learners and teachers in a structured manner based on the evidence-based instruction and development strategies. The principle here is 'back to basics': all available placement of people and resources is located in the classroom. The word prism refers to the multicolouredness of learners and co-teachers. Learners are pupils with and without special educational needs. Teachers can be about the cooperation between two regular teachers, between a special teacher and group teacher or group of teachers, or, for example, a teacher and class assistant/group educator.

What really works: 27 evidence-based strategies for education by Mitchell, David.

'What really works' offers 27 teaching strategies that can be directly applied in practice. These strategies have been proven to contribute to better teaching and learning by all pupils, both academically and socially. A definition is given for each of the strategies, the theoretical basis and the underlying idea are discussed, practical examples follow, scientific research is explained and, where necessary, disadvantages, and pitfalls are indicated. Finally, there is an overall conclusion and tips for further reading. Among others, the following strategies are discussed: cooperative learning, peer tutoring, social skills training, parental involvement and support for parents, direct instruction, phonological awareness, and language processing, safe class climate, inclusive education. 'What really works' is intended for students of teacher training and special education, teachers, teacher trainers, (school) psychologists, care coordinators, and internal supervisors.

Help index Autism in the classroom. Tips and strategies at hand by Brewer, Robin; Mueller, Tracy

The Autism Help Fan in the classroom is a useful resource for teachers and other professionals who work with children with an autism spectrum disorder. In a clear manner, arranged by colour, tips and strategies are presented in various sections, including the learning environment, changes in daily routine, communication, and behaviour. The range is suitable for both primary and secondary education. This tool is suitable for 4-18 years old learners.

Wobble and fidgeting: help cards by Thoonsen, Monique; Lamp, Carmen

In addition to the book "Wobble and fidgeting in the classroom" there are these help cards. The cards are intended for use in the classroom, when a pupil is under- or over-stimulated. There are activating strategies for pupils who need more incentives. And there are calming strategies, for pupils who experience too many stimuli or want to calm down. Pupils can execute the strategies independently or together with the teacher when they feel the need or before starting a task. In the set you will find 20 cards with activating strategies (red), 20 cards with calming strategies (blue), and 15 cards to execute in class or with part of the class.

Online platforms

Online platforms, more than written materials, also provide beneficial information.

- Class Series: M-Decree: In this series, Klasse bundles articles around the M-decree: what is really in the decree and what vision is behind it. Also, parents and teachers talk about their practical experiences. You will also find concrete class tips and a print-ready version of the M circle (in 7 steps to reasonable adjustments that work for teacher and student)[140]
- M-Decree: Survival Guide: In this bundle of the GO! you will find background information about the M-decree. Subjects that are discussed are history, reasonable adjustments, care continuum, the role of the CLB, changes in special education,

[140] Klasse, M-Decree. (April 2020). https://www.klasse.be/reeks/m-decreet/

trajectory student with special educational needs, and action-oriented work. The guide dates from 2015.[141]

- With Disabilities to the School of Your Choice: Reasonable Adjustment in Education: With this brochure, Unia wants to explain the concept of 'reasonable accommodation' for everyone involved: pupils, parents, teachers, and school directors, and actors from the educational world. Because they appreciate what is already happening in many schools, we use plenty of good practical examples. You will find the brochure on this page. Also, in easy language, or a video in sign language.[142]

Teaching Staff are not alone in the implementation of inclusive education. They are supported by governmental programmes (mentioned in the M-Decree section), private initiatives, and civil society organizations. Materials are provided either for pupils or teachers. There are online tools, measurement guidelines, educational and practical materials, etc. Some practices are illustrated below.

STICORDI

STICORDI measures are "educational measures that are in one educational offer, aimed at a high-quality education, to limit the (negative) consequences of learning difficulties and increase the chances of success of pupils" (Coppin, Halsberghe, Herzeele, & Van Den Steen, n.d.)[143].

[141] M-Decree Survival Guide. https://pro.g-o.be/blog/Documents/5_M-decreet%20survival%20guide%2020151002.pdf

[142] Unia, Met een handicap naar de school van je keuze: redelijke aanpassingen in het onderwijs (April 2020). https://www.unia.be/nl/publicaties-statistieken/publicaties/met-een-handicap-naar-de-school-van-je-keuze-redelijke-aanpassingen-in-het-onderwijs

[143] STICORDI: een nieuwe generatie. Hoe omgaan met STICORDI-maatregelen in de klas en op school? https://www.go-ouders.be/sites/default/files/atoms/files/STICORDI%20-%20een%20nieuwe%20generatie.pdf (p. 4)

STICORDI measures are therefore one of the "reasonable adjustments" as formulated in the UN Convention for Persons with Disabilities (United Nations, 2006)[144].

Reasonable accommodations are 'necessary and appropriate changes and ones that do not impose a disproportionate or disproportionate or unnecessary burden if in a specific case they are necessary to ensure that persons with disabilities can enjoy all human rights and fundamental freedoms on an equal basis with others. Enjoy or exercise '.

In education, these adaptations ensure that children with or without disabilities receive the support they need to participate effectively in mainstream education. It is often incorrectly stated that STICORDI measures only apply to pupils with an officially established disability. All pupils who experience (temporary) difficulties in learning and as a result are restricted in participation in educational activities, may require STICORDI measures. They enable a strong learning environment for all pupils.

STICORDI is an acronym (**STI**muleren, **CO**mpenseren, **R**emediëren, **DI**spenseren) that refers to various measures to avoid learning disadvantage in children with a disability or learning disabilities:

- **Encourage:** encouraging pupils and emphasizing the child's strengths.
- **Compensate:** Use tools to reduce the negative consequences of learning disabilities. For example, allow the use of tools such as a calculator, a step-by-step plan, or a dictionary. Provide pupils with extra time for exercises or assignments.
- **Remedying**: offering individual learning aid and giving more extensive or intensive instructions or learning strategies that improve learning.
- **Differentiate:** tackle the same learning objectives and tasks slightly differently.
- **Dispensing:** drop certain parts of the learning program and where possible replace it with something equivalent.

[144] United Nations. (2006). *Convention on the Rights of Persons with Disabilities.* https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html

The STICORDI measures allow pupils with special educational needs to enjoy education at the same level as their classmates. The measures are for pupils in primary and secondary education with a disability or learning difficulties.

Different from other examples, a teacher does not need permission to be stimulating, compensatory, to apply differentiating or remedial measures. However, for dispensing measures the approval of the accompanying class council is required.

Importantly, constructive collaboration between different partners is indispensable for taking suitable STICORDI measures; significant stakeholders can be parents, the pupil, the teacher, the colleagues of the teacher, and the CLB.

There are specific measurement forms for different disability types, most of them immediately ready to use (dyslexia, dysphasia, dyscalculia, AD(H)D, NLD, and ASS). Additional ones are being prepared for dysorthografie, Tourette syndrome, and Asperger syndrome. Forms are created for the usage by teachers or experts and there are several questions specified for measuring the disability type properly.

The state education network GO! published an informative STICORDI guide (https://www.go-ouders.be/sites/default/files/atoms/files/STICORDI%20-%20een%20nieuwe%20generatie.pdf).

ADIBIB

ADIBib (https://www.adibib.be/) provides a learning platform and workbooks of education available digitally for pupils with limitations in written communication. These tools are just for the usage by children themselves.

ADIBib project is created for primary and secondary education pupils who face serious reading and/or writing problems such as dyslexia, dyspraxia, or other limitations in written communication. It allows these children and young people to follow education that suits their abilities.

In addition, ADIBoeken are free digital versions of the paper textbooks for primary and secondary education. These are both manuals and workbooks and especially for pupils with

serious reading and/or writing problems. Everything is simulated on the computer as in the printed book. There is a reading program option that can be used to read, listen to the text, or enter words or phrases.

AD-books are for pupils with the right certificate:

- Dyslexia;
- Dyspraxia;
- M-Decree;
- Motivated report;
- Report type 1,2,3,4,5,6,7,8,9 or basic offer.

WAI-NOT!

WAI-NOT (https://www.wai-not.be/) offers an accessible website for young people who need extra support. The range varies from educational to (re) creative, informative, and certainly interactive.

The target group includes young people who have difficulty reading and writing. Intelligible language supported by text marking, speech, and images has been used in the tools. On the website, communication is possible with language or with icons, or in a combination of both. It provides a fixed and clear structure with a clear layout. Young people with an intellectual disability or multiple disabilities, including visual, motor, and intellectual disabilities, are certainly attracted to our low-threshold website.

KlasCement

KlasCement (https://www.klascement.net/) provides documents, articles, websites, and programs that teachers can use for children with disabilities. It is also a platform where teachers inspire each other by sharing materials and it includes free teaching materials. The provided material is easily reachable and suitable for all ages and subjects.

Cyprus

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Best Practice 1: The Inclusion Development Programme (guidance for practitioners)

This is a very useful resource that provides strategies for practitioners on how to deal with certain pupils and promote inclusion.

The Inclusion Development Programme (IDP) is part of the UK government's strategy for children with special educational needs (SEN), outlined in Removing barriers to achievement: the government's strategy for SEN (DfES 0117/2004).[145] It offers guidance to practitioners on how to support the inclusion process of children with Behavioural, Emotional and Social Difficulties (BESD), and its goal is to remove barriers for achievement.

In the next paragraph we will view in more detail the guidance for practitioners in the early school years on supporting children with BESD. The guide is divided into four categories: The unique child; How to create Positive Relationships; Enabling Environments that promote learning; Learning and Development. Each section includes case studies.

In the **Unique child** section, practitioners can view the different behaviour that a child might have, what that means about the child and what strategies they can use to minimize the occurrence of this unwanted behaviour. In the **Positive Relationships** section practitioners can follow strategies that would help them build better relationships with the parents/carers of children they support and identify effective ways of communicating with them. Since the environment plays a key role in supporting and extending children's development and learning, as well as on children behaviour, the section **Enabling Environments** mainly focuses on ways to work with children by providing a calm and relaxing environment for learning. The last section, **Learning and Development** analyses the importance of creating

[145] The Inclusion Development Programme (IDP). http://www.idponline.org.uk/downloads/ey-besd.pdf

realistic expectations for children to access all areas of learning, value all children and create opportunities for participation, foster children learning, etc.

The detailed guidance can be found at: http://www.idponline.org.uk/downloads/ey-besd.pdf

In the IDP website you can find guides for:

1. Primary and secondary education. Supporting children with behavioural, emotional, and social difficulties (BESD)
2. Early Year Foundation stage. How to support children on the autism spectrum?
3. Primary and Secondary. How to support children on the autism spectrum?
4. Early Year Foundation stage. Supporting children with speech, language, and communication needs (SLCN)
5. Primary and Secondary. Supporting children with speech, language, and communication needs (SLCN)
6. Primary and Secondary. Teaching and supporting pupils with Dyslexia.

All guides are provided for free and can be found on the following link: http://www.idponline.org.uk/

Best Practice 2: Game based online Training for Teachers in special education (Play2Do project)

The Play2Do project aims to support special education teachers, mainstream teachers, and VET trainers who work with learners with intellectual disabilities, by offering an educational game for teachers to complement their training through simulated practice learning and improve their skills in dealing with critical incidents or challenging situations which can occur in everyday practice.[146] It provides a safe and readily accessible environment, where teachers working with pupils with intellectual disabilities can learn by interacting with characters in the game in a simulation of a real-world service.

[146] Play2Do Project. http://play2do.eu/outputs/

The game aims to introduce learners to a range of simulated scenarios, potentially faced in real situations, and approaches to deal with them, in special or integrated classrooms that include children with intellectual and/or developmental disabilities, such as to enable pupils to acquire skills from the observation, discussion, analysis and evaluation of simulated situations/scenarios, through critical reflection, or to enable pupils to acquire skills in communication, autonomous learning, managing challenging and extreme behaviours (conflict situation, crisis intervention), structured discussion and information technology.

Trainers of Inclusive Education can use the Play2Do simulation environment as a complementary resource in teacher education. After the experience of observing and interacting in and outside the game, scenarios are reflected on, as well as conclusions are drawn regarding each trainee performance, acceptable/inacceptable behaviour, successful/unsuccessful or desirable/undesirable interaction with children/students with intellectual and/or developmental disabilities. Then, all these reflections can be discussed in the class, potentially accompanied by further class discussions, using additional theoretical materials, case studies, best practices guidelines and videos, as detailed in the Play2Do online course. Teachers can challenge themselves with 6 different cases. The cases in the scenarios are: 1) a child with ADHD, 2) a child with dyslexia, 3) a child in the autism spectrum, 4) different student needs in a special unit, 5) a child with behaviour issues, and 6) a child who has an epileptic episode in the classroom.

After completing each scenario, trainees will have the opportunity to discuss and learn new skills on coping with behavioural problems, anticipating aggressive behaviour and preventing it, dealing with aggression, setting a positive role model of communicating with SEN students and also on how to deal with unpredictable situations in the classroom, such as with the pupil who has an epileptic episode and on how to deal with the rest of the children. The tool and project resources can be accessed and used for free at: http://play2do.eu/outputs/

Taking the example of the above practices, trainers of Inclusive Education can use the above materials when they design their trainings to use them together, as the first practice deals with theory and the second practice gives the opportunity to practice and exchange opinions in a simulation environment.

Involvement of ICT in the 21st century Teaching/Learning (Serious Games, Robotic Mediated) to Promote Learning for Pupils with Special Needs

Introduction on Inclusive 21st Century Teaching/Learning

Contributors: Svetlana Surikova (University of Latvia, Latvia) and Karel Van Isacker (PhoenixKM BVBA, Belgium)

Inclusive education for the 21st century aims to meet the needs of every student and therefore its effective implementation is challenging for schools and for teachers in particular (Eredics, 2018[147]; Holm, 2018[148]; Jacob & Olisaemeka, 2016[149]; Körner et al., 2018[150]; Yamashiro, 2019[151]). Evidence-based research indicates the strategies that make schools inclusive for pupils with special needs benefit all learners (Graham, 2020[152]). Technological developments brought new ways of learning. Even if the mainstream education is still ongoing at schools, online platforms and social media offer additional supportive opportunities for both pupils and teachers (Assaad et al., 2018[153]). Inclusive education is a multifaceted concept (Mitchell,

[147] Eredics, N. (2018). Inclusion in action: Practical strategies to modify your curriculum. Brookes Publishing.

[148] Holm, L. (2018). 21st century education: Inclusion in the classroom. https://owlcation.com/academia/21st-Century-Education-Inclusion-in-the-Classroom

[149] Jacob, U. S., & Olisaemeka, A. N. (2016). Inclusive education in the 21st century: Parameters and opportunities for learners with special needs. Scientific Journal of Kurdistan University of Medical Sciences, 12(10), 188–196. https://doi.org/10.19044/esj.2016.v12n10p188

[150] Körner, I., Uhlmann, S., Schmid, B., Freyhoff, G., & Rígrová, D. (2018). Towards inclusive education: Examples of good practices of inclusive education. Inclusion Europe with support of the European Commission. https://inclusion-europe.eu/wp-content/uploads/2018/02/Best-Practice-Education_EN-FINALWEB.pdf

[151] Yamashiro, N. (2019). An inclusive vision for 21st century learning. http://www.afterschoolalliance.org/afterschoolsnack/An-inclusive-vision-for-21st-century-learning_11-21-2019.cfm

[152] Graham, L. (Ed.) (2020). Inclusive education for the 21st century: Theory, policy and practice. Allen & Unwin.

[153] Assaad, M., Makela, T., Pnevmatikos, D., & Christodoulou, P. (2018). Pedagogical design principles guided integration of social media concepts in a hybrid learning environment: Analysing and reporting focus group results. In U. Rechkoska-Shikoska & M. Assaad (Eds.), *AICT 2018: The Fourteenth Advanced International*

2015[154]) and its implementation also benefited from the current developments in the ICT field (Cheng & Lai, 2020[155]; IITE, 2006[156]; Josjö, 2012[157]). The robotic mediates, serious games, and other computer games (Laamarti et al., 2014[158]; Papadakis, 2018[159]; Romero et al., 2015[160]) bring a new understanding of online and blended learning and open a new door for all learners to the ICT world through virtual or mixed reality environments. The challenges in the use of ICT as a tool for learning and inclusion should be identified to promote the process of successful digital inclusion and implementation of innovative ICT-based solutions into the formal and informal education (Tomczyk & Oyelere, 2019[161]). In recent years, ICT tools have ebeen mployed to promote learning for pupils with special needs and enhance their adaptability to the learning environment and their learning achievement and the application of those tools has gradually increased (Cheng & Lai, 2020[162]). Pupils with special needs are

Conference on Telecommunications (pp. 94–100). IARIA. https://thinkmind.org/index.php?view=article&articleid=aict_2018_6_10_18001

154 Mitchell, D. (2015). Inclusive education is a multi-faceted concept. *Center for Educational Policy Studies Journal*, *5*(1), 9–30. https://www.cepsj.si/index.php/cepsj/article/view/151/79

155 Cheng, S., & Lai, C. (2020). Facilitating learning for students with special needs: A review of technology-supported special education studies. *Journal of Computers in Education, 7*, 131–153. https://doi.org/10.1007/s40692-019-00150-8

156 IITE, UNESCO Institute for Information Technologies in Education. (2006). *ICTs in education for people with special needs: Specialized training course*. UNESCO Institute For Information Technologies in Education. https://iite.unesco.org/pics/publications/en/files/3214644.pdf

157 Josjö, H. (2012). *ICT and inclusion: Teachers' perceptions on the use of information and communication technology for students with special educational needs in general educational settings*. Umeå universitet. https://www.diva-portal.org/smash/get/diva2:633789/FULLTEXT01.pdf

158 Laamarti, F., Eid, M., & El Saddik, A. (2014). An overview of serious games. *International Journal of Computer Games Technology, 2014*, 1–15. https://doi.org/10.1155/2014/358152

159 Papadakis, S. (2018). The use of computer games in classroom environment. *International Journal of Teaching and Case Studies*, *9*(1), 1–25. https://doi.org/10.1504/IJTCS.2018.10011113

160 Romero, M., Usart, M., & Ott, M. (2015). Can serious games contribute to developing and sustaining 21st-century skills? Games and Culture, 10(2), 148–177. https://doi.org/10.1177/1555412014548919

161 Tomczyk, Ł., & Oyelere, S. S. (Eds.). (2019). *ICT for learning and inclusion in Latin America and Europe*. Pedagogical University of Cracow. https://doi.org/10.24917/9788395373732

162 Cheng, S., & Lai, C. (2020). Facilitating learning for students with special needs: A review of technology-supported special education studies. *Journal of Computers in Education, 7*, 131–153. https://doi.org/10.1007/s40692-019-00150-8

affected by ICT advances in the classroom in multiple ways. For instance, 'students with disabilities often use assistive technology (AT) to help them connect with otherwise inaccessible general education curriculum, as well as to maximize their learning strengths' and 'perhaps more important, like their peers, they use technology more generally to create engaging educational experiences' (NCLD, 2019a, pp. 12[163]). Lidström et al. (2012)[164] divided learners' use of ICT as an educational tool, an alternative tool for learning and a compensatory tool, i.e. as a computer-based assistive technology device. ICT should play a pivotal role in providing the availability of educational resources to everybody, for instance, to support blind or visually impaired people: turn everything visual into audible; in the case of deaf or hearing impaired people: turn all audible into visual, and so on (Tomczyk & Oyelere, 2019, p. 20[165]). According to Cheng and Lai (2020)[166], there is still little research and analysis of the application and development trends of integrating technologies into special education. Furthermore, it is extremely important to consider accessibility and inclusivity as essential elements whenever technology is conceived and used in classrooms or schools using five interrelated components (i.e., vision, design, procurement, use, and continuous improvement) that lead to success for all students (NCLD, 2019a)[167]. However, it could be highlighted that educational technology (ed tech) initiatives and products should be appropriately conceived, designed, procured, implemented, and evaluated with the needs of all learners, especially those with special needs

[163] NCLD, National Center for Learning Disabilities. (2019a). *Inclusive technology in a 21st-century learning system*. https://www.ncld.org/wp-content/uploads/2019/06/Inclusive-Technology-in-a-21st-Century-Learning-System.Final_.060719.pdf

[164] Lidström, H., Granlund, M., & Hemmingsson, H. (2012). Use of ICT in school: A comparison between students with and without physical disabilities. *European Journal of Special Needs Education*, 27(1), 21–34. https://doi.org/10.1080/08856257.2011.613601

[165] Tomczyk, Ł., & Oyelere, S. S. (Eds.). (2019). *ICT for learning and inclusion in Latin America and Europe.* Pedagogical University of Cracow. https://doi.org/10.24917/9788395373732

[166] Cheng, S., & Lai, C. (2020). Facilitating learning for students with special needs: A review of technology-supported special education studies. *Journal of Computers in Education, 7*, 131–153. https://doi.org/10.1007/s40692-019-00150-8

[167] NCLD, National Center for Learning Disabilities. (2019a). *Inclusive technology in a 21st-century learning system*. https://www.ncld.org/wp-content/uploads/2019/06/Inclusive-Technology-in-a-21st-Century-Learning-System.Final_.060719.pdf

(NCLD, 2019a[168], 2019b[169], 2019c[170]) in order to 'improve learning opportunities and provide meaningful experiences for diverse learners' (NCLD, 2019a, p. 12[171]) and not to 'exacerbate and magnify existing inequalities' (NCLD, 2019b, p. 2[172]).

Methodologies

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For creating more inclusive learning environments, Ghilain (2015)[173] suggested using innovative learning methods and technology to implement teaching methods with a Universal Design; to transfer good practices among teachers, educators and other training professionals and to adapt and innovate evaluation methods with written, oral or external evaluations (p.

[168] NCLD, National Center for Learning Disabilities. (2019a). *Inclusive technology in a 21st-century learning system*. https://www.ncld.org/wp-content/uploads/2019/06/Inclusive-Technology-in-a-21st-Century-Learning-System.Final_.060719.pdf

[169] NCLD, National Center for Learning Disabilities. (2019b). *Inclusive technology in modern learning environments: A collaborative local action primer.* https://www.ncld.org/wp-content/uploads/2019/06/Inclusive-Technology-Local-Procurement.Final_.060719.pdf

[170] NCLD, National Center for Learning Disabilities. (2019c). *Inclusive technology in modern learning environments: Student experiences and four key federal laws*. https://www.ncld.org/wp-content/uploads/2019/06/Inclusive-Technology-Student-Experiences-and-Four-Key-Federal-Laws.Final_.pdf

[171] NCLD, National Center for Learning Disabilities. (2019a). *Inclusive technology in a 21st-century learning system*. https://www.ncld.org/wp-content/uploads/2019/06/Inclusive-Technology-in-a-21st-Century-Learning-System.Final_.060719.pdf

[172] NCLD, National Center for Learning Disabilities. (2019b). *Inclusive technology in modern learning environments: A collaborative local action primer.* https://www.ncld.org/wp-content/uploads/2019/06/Inclusive-Technology-Local-Procurement.Final_.060719.pdf

[173] Ghilain, T. (2015). *Towards more inclusive learning environments in Europe: Salzburg Declaration.* European Association of Service providers for Persons with Disabilities. https://www.easpd.eu/sites/default/files/sites/default/files/Policy/Education/towards_more_inclusive_learning_environments_in_europe_easpd.pdf

13). A recent study (Josjö, 2012)[174] indicates that teaching pupils with special needs requires using different strategies rather than traditional teaching methods, but in practice teachers do not have enough knowledge of ICT use for special educational needs and the majority of teachers make only a few adaptations. New methodologies for ICT adapted inclusive education should start from the school curriculum which 'should be modified to accommodate learners with special needs different learning style so as to achieve the needed change' (Jacob & Olisaemeka, 2016, p. 193[175]). As it is illustrated previously, inclusive education can be modifiable based on pupils' needs and abilities allowing to learn at their own pace to achieve the intended learning outcomes (Jacob & Olisaemeka, 2016)[176]. Also the school lessons, online courses together with serious games or robotic games (if it is needed) can be combined to increase the pupils' interest and activeness. However, 'the process of school inclusion can be fostered by means of new technological tools only if, in parallel, educational approaches, methods and strategies are conveniently revised and improved' (Ott & Pozzi, 2009, p. 635[177]) and are evidence-based (Mitchell, 2015)[178].

Learning 3.0

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

[174] Josjö, H. (2012). *ICT and inclusion: Teachers' perceptions on the use of information and communication technology for students with special educational needs in general educational settings*. Umeå universitet. https://www.diva-portal.org/smash/get/diva2:633789/FULLTEXT01.pdf

[175] Jacob, U. S., & Olisaemeka, A. N. (2016). Inclusive education in the 21st century: Parameters and opportunities for learners with special needs. *Scientific Journal of Kurdistan University of Medical Sciences*, *12*(10), 188–196. https://doi.org/10.19044/esj.2016.v12n10p188

[176] Jacob, U. S., & Olisaemeka, A. N. (2016). Inclusive education in the 21st century: Parameters and opportunities for learners with special needs. *Scientific Journal of Kurdistan University of Medical Sciences*, *12*(10), 188–196. https://doi.org/10.19044/esj.2016.v12n10p188

[177] Ott, M., & Pozzi, F. (2009). Inclusive education and ICT: Reflecting on tools and methods. In P. L. Emiliani, L. Burzagli, A. Como, F. Gabbanini, & A.-L. Salminen (Eds.), *Assistive Technology from Adapted Equipment to Inclusive Environments* (Vol. 25, pp. 635–639). IOS Press. https://doi.org/10.3233/978-1-60750-042-1-635

[178] Mitchell, D. (2015). Inclusive education is a multi-faceted concept. *Center for Educational Policy Studies Journal*, *5*(1), 9–30. https://www.cepsj.si/index.php/cepsj/article/view/151/79

With Learning 3.0, schools move away from traditional lectures and instead focus on interactive learning, with question and answer sessions, reviews and quizzes, discussions, labs, and other project-based learning, making use of the opportunities offered by ICT. According to Keats and Schmidt (2007)[179], Learning 3.0 is characterized by rich, cross-institutional, cross-cultural educational opportunities within which the learners themselves play a key role as creators of knowledge artefacts that are shared, and where social networking and social benefits outside the immediate scope of activity play a strong role.

Daciuk (2016)[180] mentioned some fundamental aspects of Learning 3.0:

- Modern user experience design, similar to what can be seen in the consumer web.
- Visually engaging overview, e.g., what I am going to learn, how I am doing, what's next, etc.
- Personalized, allows learners to test out and navigate in a nonlinear fashion.
- A knowledge graph frame of reference, instead of a list of materials to get through.
- Learn-by-doing.
- Integration of external materials.
- Interactive content and assessments.
- Human involvement at scale, e.g., online coaching or group collaboration.
- Engagement tools, e.g., gamification, mobile, social integration, etc.
- Visible and transportable credit for what has been learned.
- Heavy use of data to improve the learning experience and course material over time.

Individual Educational Plan Examples – Belgium

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

[179] Keats, D. W., & Schmidt, J. P. (2007). The genesis and emergence of Education 3.0 in higher education and its potential for Africa. *First Monday*, *12*(3). https://doi.org/10.5210/fm.v12i3.1625

[180] Daciuk, E. (2016). *Online Learning 3.0 is happening and you're probably behind.* https://elearningindustry.com/online-learning-3-0-happening

Aforementioned Sticordi measures have been defined per developmental disorder[181] and are to be applied in inclusive lessons.

'Sticordi' is an acronym that refers to various measures to avoid learning disabilities in children with disabilities or learning disabilities:

- Stimulate;
- Compensate;
- Remedy;
- Differentiate.

The Sticordi measures allow pupils with special educational needs to enjoy education at the same level as their classmates.

A teacher does not need the permission to be stimulating, compensatory and to apply differentiating or remedial measures. For dispensing measures the approval of the accompanying class council is required.

A constructive collaboration between different partners is indispensable for taking suitable Sticordi measures. We think of parents, the pupil, the teacher, colleagues of the teacher and the CLB (Center for Educational Guidance).

For whom?

The measures are for pupils in primary and secondary education with a disability or learning difficulties. Making a diagnosis is not a requirement.

Encourage: encourage pupils and, above all, emphasize what succeeds, e.g., making progress visible with scorecards, product portfolio; appropriate place in the classroom, starting from the world of specific pupils; more feed-up; pupils regularly receiving indications about timing; individual learning results, etc.

[181] Sticordi-maatregelen. http://www.wilgenduin.be/page/Sticordimaatregelen.aspx

Compensating: allowing technical aids; e.g., (front) reading software, word processing programme, spelling corrector, speech recognition software; dictionary, adapted furniture provided, the teacher gives board diagrams and mind maps, shorter keys; read aloud, reading by silent reading; pupils use formula cards, etc.

Remedying: offering individual learning aid to eliminate problems: tutor (pupil roll-out), which is individually discussed with the pupil beforehand or afterwards; deal with essential faults first, relieve pressure by avoiding reading work; do not compare with other pupils; give points for the most important, etc.

Dispensing: abandoning/replacing learning objectives/final objectives with deeper objectives: exempting dictation in language courses; fewer exercises; do not require that pupils explain on the board; replace group assignments with individual assignments; exempt from swimming; ignore spelling mistakes in dyslexic pupils, etc.

In the following, we detail this per disability group.

Dyslexia

Name pupil: _____

Class: _____

Period: _____

Type	**Possible STICORDI measures**	**Applicable**
STIMULATE	To be aware of the problem of the pupil and to take it into account	
STIMULATE	Make the measures in the classroom open to discussion (if the parents and the pupil wish so)	
STIMULATE	Do not evaluate individual results in the classroom in a confrontational way.	
STIMULATE	Motivation and encouragement.	
STIMULATE	Checking of notes and agenda are duly completed.	
STIMULATE	Guide when adding new notes and events on the calendar	

Type	Possible STICORDI measures	Applicable
STIMULATE	To determine whether the instruction is well understood	
STIMULATE	Communicating to whom and how the pupil can ask for help	
STIMULATE	Consider reduced concentration	
COMPENSATE	Provide more time for large tasks / tests / exams	
COMPENSATE	Provide exams in a separate room.	
COMPENSATE	Read questions during tests / exams.	
COMPENSATE	Error-free copies provided with fill-in sheets.	
COMPENSATE	Allow tools in the classroom: calculator / times tables /tables / formulas / step-by-step plans /solution cards /dictionary / ...	
COMPENSATE	Allow tools when creating tasks: calculator / times tables / tables / formulas / step-by-step plans / solution maps /dictionary / ...	
COMPENSATE	Offer a clearly structured whole and give this structure to the pupil.	
COMPENSATE	Customize Layout: clear font, wide line spacing.	
COMPENSATE	Adjustments for book reviews: film instead of the book review / allow easier reading / large textbook / ...	
COMPENSATE	Create homework tasks.	
COMPENSATE	Allow the pupil to have access to the whole subject matter.	
COMPENSATE	Give one colour per box for folders, covers, notebooks.	
COMPENSATE	Put the pupil in a strategically good position.	
COMPENSATE	Enlist the help of the parents for homework assistance.	
PERSPECTIVE	Classroom exercises and homework confined to the base material.	
PERSPECTIVE	Provide a second chance: do not punish catch-ups / catch-up tests / forgotten tasks/ postpone tasks / see if all assignments have been filled in with tests / tasks / exams…	
PERSPECTIVE	Assess the real key (points for the important subject matter)	
PERSPECTIVE	Language errors cannot be included in the subject matter where this is not relevant.	
PERSPECTIVE	In dictation only mark the practiced words.	
PERSPECTIVE	“Complete words” dictation instead of sentence dictation	
PERSPECTIVE	Provide extra guidance after school hours.	

Type	Possible STICORDI measures	Applicable
DISPENSING	Permanent / temporary / partial / complete exemption provided for certain final objectives:	
DISPENSING	Exemption of exercises in front of the class.	
DISPENSING	Exempt from reproducing statements or proofs from memory.	
DISPENSING	Exemption of certain questions at the test or exam: multiple choice	
DISPENSING	Exemption from the written exam.	

ADHD (Attention-Deficit/Hyperactivity Disorder)

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	To be aware of the pupil's problem and to take it into account.	
STIMULATE	Make the measures in the classroom open to discussion (if the parents and the pupil wish so).	
STIMULATE	Do not evaluate individual results in the classroom in a confrontational way.	
STIMULATE	Motivation and encouragement.	
STIMULATE	Checking if notes and agenda are duly completed.	
STIMULATE	Guide when adding new notes and events on the calendar.	
STIMULATE	Check whether the assignment is well understood.	
STIMULATE	Show understanding of the problem and acknowledge the problem. This can be a huge support for the pupil.	
STIMULATE	Try to move around the pupil's environment.	
STIMULATE	Strive for the quality over quantity.	
STIMULATE	Forget about the anger, disappointment or other emotions that occur during the day, because of the unwanted or disturbing behaviour of the pupil.	
STIMULATE	Assess the content not the hand writing	

Type	Possible STICORDI measures	Applicable
STIMULATE	Reward the pupil quickly, when he/she has done something good so that the link between the desired behaviour and positive feedback is clear to the pupil.	
STIMULATE	When rewarding or praising the pupil, state expressly what he or she was did well.	
STIMULATE	If you want to change the undesirable behaviour, it is good to determine first by which positive behaviour you want to replace it. This way you can achieve a better balance between giving punishment and giving encouragement.	
STIMULATE	Encourage positively at the time of the desired behaviour (motivating for the child to complete the assignment or task)	
STIMULATE	Ensure that the pupil is not frustrated or tired; maybe the assignment was too heavy or took too much time	
STIMULATE	Tell the pupil how she/he can indicate that she/he feels angry or frustrated.	
STIMULATE	Try as a teacher to formulate the behaviour of the pupil in positive terms, so that there is no discouragement.	
STIMULATE	Give plenty of room to mess around and make noise.	
STIMULATE	Give a break often between assignments in which a motor activity becomes allowed.	
STIMULATE	The penalty must be in proportion to the seriousness of the facts.	
STIMULATE	Stay calm when you punish.	
STIMULATE	In case of seriously undesirable behaviour, it is best to respond each time.	
STIMULATE	The punishment must be linked to a behaviour and not to the personality as a whole.	
STIMULATE	If one punishes, it is best to do so immediately after the incident.	
STIMULATE	Always teach the opposite, desired behaviour (this one has better long-term effects).	
STIMULATE	Communicate to whom and how the pupil can ask for help	
STIMULATE	Consider reduced concentration	
COMPENSATE	Provide more time for large tasks / tests / exams	
COMPENSATE	Spreading tests and exams in time in consultation with other teachers	
COMPENSATE	Provide exams in a separate room.	
COMPENSATE	Read questions during tests / exams.	

Type	Possible STICORDI measures	Applicable
COMPENSATE	Provide error-free copies with fill-in sheets.	
COMPENSATE	Allow tools in the classroom: calculator / times tables / tables / formulas / step-by-step plans / solution cards / dictionary /…	
COMPENSATE	Allow tools when creating tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Allow tools when creating tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Offer a clearly structured whole and give this structure to the pupil.	
COMPENSATE	Give folders, covers, notebooks one colour per box.	
COMPENSATE	You can use an instruction list, e.g., in the classroom: I am sitting right on my chair, I am quiet, I listen to the teacher, I look at the board.	
COMPENSATE	Make a list of materials that the pupil has to bring with him/her every day.	
COMPENSATE	Teach the pupils techniques of memorization: memo-technical remedies (e.g., donkey bridges), making clear representations (e.g., mind maps), linking the new information to the other already present memory contents, learning the structure of the subject matter/core thoughts by heart.	
COMPENSATE	Emphasize the didactic principle of repetition.	
COMPENSATE	Teach the pupil to count up to 5 before doing anything.	
COMPENSATE	Use a verse or a song.	
COMPENSATE	Teach the pupil to talk to himself aloud when he/she does something.	
COMPENSATE	Make good agreements about how the pupil can pay attention, ask.	
COMPENSATE	Clearly agree on which behaviour is desired and when, and help the pupil in the respective situation.	
COMPENSATE	Use signals as a warning for undesirable behaviour (e.g., tap on the table).	
COMPENSATE	Put the pupil in a strategically good position.	
COMPENSATE	Allow ear protection.	
PERSPECTIVE	Limit class exercises and homework to the basic material.	
PERSPECTIVE	Provide a second chance: do not penalize catch-ups / catch-up tests / forgotten tasks / postpone tasks / see if	

Type	Possible STICORDI measures	Applicable
	all assignments have been filled in with tests / tasks / exams	
PERSPECTIVE	Assess the real issue (Point to the important subject matter).	
PERSPECTIVE	Language errors cannot be included in the subject matter where this is not relevant.	
PERSPECTIVE	Evaluate calculation errors less if the structure and reasoning behind the solution is correct.	
PERSPECTIVE	In dictation only mark the practiced words.	
PERSPECTIVE	Complete words dictation instead of sentence dictation.	
PERSPECTIVE	Provide extra guidance after school hours.	
PERSPECTIVE	Avoid unnecessary stimuli and distractions as much as possible.	
PERSPECTIVE	Use questions - strategy: question 'What do you need to do this? unloading '(e.g., formula, specific material)	
PERSPECTIVE	Provide a clear organization in the day and week format.	
PERSPECTIVE	Provide learning texts with a list of key words or core ideas.	
PERSPECTIVE	You can help the pupil by giving all things a permanent place and by stimulating the pupil and teaching to do that for themselves.	
PERSPECTIVE	When making a task, make sure that only items that the pupil needs are on the table.	
PERSPECTIVE	Make sure that as few disturbing sounds as possible can distract the pupil, for instance, by offering a sound-deadening hearing protector during individual work.	
PERSPECTIVE	Teach the pupil how to structure a learning text: highlighting keywords, marking titles and subtitles.	
PERSPECTIVE	Provide a clear structure in the school library (e.g., always keep the agenda) the right corner, the calculation book left).	
PERSPECTIVE	Use well-organized buttons (not too many on one page each time), the same structure.	
PERSPECTIVE	Give plenty of room to respond.	
PERSPECTIVE	Place the pupil in a place with little distraction, preferably in front of the classroom.	
PERSPECTIVE	Put the pupil on a couch or next to a pupil who can bring peace.	
PERSPECTIVE	Regularity and clarity are an anchor for pupils with ADHD.	
PERSPECTIVE	Every approach that relies on self-control and self-instruction gives these pupils the necessary	

Type	Possible STICORDI measures	Applicable
	environmental support, e.g., the self-instruction method van Meichenbaum or Stippestappen.	
PERSPECTIVE	Discuss the basic attitude with the pupil.	
PERSPECTIVE	All children with ADHD need simple rules with clear, positive, encouraging consequences with desired behaviour and adverse effects. Set firm, clear and simple requirements and courageous the desired behaviour.	
PERSPECTIVE	Avoid nuances such as maybe, a little, sometimes.	
PERSPECTIVE	Combine an oral assignment with a written assignment.	
PERSPECTIVE	Divide the instruction into smaller parts.	
PERSPECTIVE	Keep the instruction phase short.	
PERSPECTIVE	Make agreements about interruptions, e.g., to raise a finger to shoe the annoyance or to ask a question, it can be agreed that he/she asks a maximum number of questions per school day. The pupil learns because of this, to think first before he/she asks a question and gains experience in it by asking more specific and relevant questions.	
PERSPECTIVE	It is advisable to prepare the pupil for all sorts of new situations and to act directly at the first sign that things are going wrong.	
PERSPECTIVE	Tell the pupil in advance what is going to happen, what it will look like, who is there, what you will do.	
PERSPECTIVE	Do not give too many rules at the same time.	
PERSPECTIVE	Specify clear limits (this may / may not).	
PERSPECTIVE	Repeat the rules adequately until the pupil runs it smoothly and applies of his/her own accord.	
DISPENSING	Exempt from reproducing statements or proofs from memory.	
DISPENSING	Provide a safe place to calm down/relax.	
DISPENSING	Allow the pupil sufficient time to complete his/her tasks neatly and orderly (dispensing of time pressure).	
DISPENSING	Link time to divide tasks.	
DISPENSING	Help the pupil to set a long-term goal: the ultimate goal broken up into realistic parts.	
DISPENSING	Consider oral questioning.	
DISPENSING	Arrange a telephone accessible 'helpdesk' for the pupil, e.g., via a buddy system.	
DISPENSING	Provide a stimulus-poor corner in the classroom where the pupil can work as he/she wants.	

Autism

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	To be aware of the problem of the pupil and to take it into account.	
STIMULATE	Make the measures in the classroom open to discussion (if the parents and the pupil wish so).	
STIMULATE	Do not evaluate individual results in the classroom in a confrontational way.	
STIMULATE	Motivation and encouragement.	
STIMULATE	Checking if notes and agenda are duly completed.	
STIMULATE	Guide when adding new notes and events on the calendar.	
STIMULATE	Check whether the assignment is well understood.	
STIMULATE	Communicate to whom and how the pupil can ask for help.	
STIMULATE	Consider reduced concentration.	
COMPENSATE	Provide more time for large tasks / tests / exams.	
COMPENSATE	Spreading tests and exams in time in consultation with other teachers.	
COMPENSATE	Provide exams in a separate room.	
COMPENSATE	Read questions during tests / exams.	
COMPENSATE	Provide error-free copies with fill-in sheets.	
COMPENSATE	Allow tools in the classroom: calculator / times tables / tables / formulas / step-by-step plans /solution cards / dictionary / ...	
COMPENSATE	Allow tools when doing tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Allow tools when creating tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Offer a clearly structured whole and give this structure.	

Type	Possible STICORDI measures	Applicable
COMPENSATE	Customize Layout: clear font, wide line spacing.	
COMPENSATE	Adjustments for book reviews: film instead of the book review/ allow easier reading / large textbook / ...	
PERSPECTIVE	Limit class exercises and homework to the basic material.	
PERSPECTIVE	Provide a second chance: do not penalize catch-ups / catch-up tests / forgotten tasks / postpone tasks / see if all assignments have been filled in with tests / tasks / exams	
PERSPECTIVE	Assess the real key (Points to the important subject matter).	
PERSPECTIVE	Language errors cannot be included in the subject matter where this is not relevant.	
PERSPECTIVE	In dictation only mark the practiced words.	
PERSPECTIVE	Evaluate calculation errors less if the structure and reasoning behind the solution is correct.	
PERSPECTIVE	Complete words dictation instead of sentence dictation.	
PERSPECTIVE	Provide extra guidance after school hours.	
DISPENSING	Permanent/temporary/partial/ complete exemption provided for certain final objectives.	
DISPENSING	Exemption of exercises in front of the class.	
DISPENSING	Exemption from mental arithmetic.	
DISPENSING	Exempt from reproducing statements or proofs from memory.	
DISPENSING	Exemption of certain questions at the test or exam: multiple choice	
DISPENSING	Exemption from the written exam.	
DISPENSING	Provide a safe place to calm down/relax.	

Dyscalculia

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	To be aware of the problem of the pupil and to take it into account.	
STIMULATE	Make the measures in the classroom open to discussion (if the parents and the pupil wish so).	
STIMULATE	Do not evaluate individual results in the classroom in a confrontational way.	
STIMULATE	Motivation and encouragement.	
STIMULATE	Communicating to whom and how the pupil can ask for help.	
STIMULATE	Promote a controlling attitude towards your own work.	
STIMULATE	Formulate clear goals. What is basic material? What is differentiation?	
STIMULATE	For each new subject matter after the lesson, check whether the pupil has actually understood it.	
STIMULATE	Organize extra exercises for mathematics in the lesson.	
STIMULATE	Work longer on a concrete / schematic level.	
STIMULATE	Give hints where possible during the math, sciences, bookkeeping, history, etc. so that the pupil does not get stuck by a small problem.	
STIMULATE	Announce tests for mathematics and sciences well in advance.	
STIMULATE	As a teacher or pupil, check that the pupil is in the correct place in his/her book, calculation work.	
STIMULATE	Never allow the pupil to solve an exercise on the board unexpectedly.	
STIMULATE	Encourage success in what the pupil can do well.	
STIMULATE	Encourage pupils to ask questions about things they do not understand.	
STIMULATE	Ensure a good bond and a safe climate.	
STIMULATE	Ensure continuity and consistency in the guidance.	
STIMULATE	Work with a progress card, or make evolution visible via, e.g., a chart.	
STIMULATE	Evaluate the pupil according to his/her own abilities, compare with him/herself), and discuss this with the parents.	
STIMULATE	Evaluate not only the calculation errors, but also the solution method.	
STIMULATE	Give a shorter, but not easier, test.	
COMPENSATE	Provide more time for large tasks / tests / exams.	

Type	Possible STICORDI measures	Applicable
COMPENSATE	Allow tools in the classroom: calculator / times tables / tables / formulas / step-by-step plans /solution cards / dictionary / ...	
COMPENSATE	Allow tools when doing tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / …	
COMPENSATE	Allow tools when creating tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Offer a clearly structured whole and give this structure to the pupil.	
COMPENSATE	Create homework tasks.	
COMPENSATE	Put the pupil in a strategically good position.	
COMPENSATE	Enlist the help of the parents for homework assistance.	
COMPENSATE	Prepare exercises in advance.	
COMPENSATE	Always express what you offer in the curriculum.	
COMPENSATE	Visualize.	
COMPENSATE	Do not use ambiguous language (no proverbs, no figurative language).	
COMPENSATE	Allow her/his own resources.	
COMPENSATE	Provide customized worksheet.	
COMPENSATE	Give tutoring during the practice moment.	
PERSPECTIVE	Limit class exercises and homework to the basic material.	
PERSPECTIVE	Provide a second chance: do not punish catch-ups / catch-up tests / forgotten tasks / postpone tasks / see if all assignments have been filled in with tests / tasks / exams.	
PERSPECTIVE	Evaluate calculation errors less if the structure and reasoning behind the solution is correct.	
PERSPECTIVE	Provide extra guidance after school hours.	
DISPENSING	Permanent / temporary / partial / complete exemption provided for certain final objectives.	
DISPENSING	Exemption of exercises in front of the class.	
DISPENSING	Exemption from mental arithmetic.	
DISPENSING	Exempt from reproducing statements or proofs from memory.	

Dysphasia

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	To be aware of the problem of the pupil and to take it into account.	
STIMULATE	Make the measures in the classroom open to discussion (if the parents and the pupil wish so).	
STIMULATE	When learning to read, spell, count: - check whether the assignment is understood - activate inside/prior information - work with visual support when applying new subject matter: phoneme-grapheme coupling, key words / sentences, spelling rules, working with concrete material and diagrams - continue to read aloud and offer audiobooks - repeated practice	
STIMULATE	Motivation and encouragement.	
STIMULATE	When communicating: - being open to the communication skills of the pupil - speak clear, simple language, ask short questions and give short assignments - clarify figurative language - give time when answering questions - deal appropriately with word-catching problems that pupils have - teach the pupil to ask for help - support visually.	
STIMULATE	Guide when adding new notes and events on calendar.	
STIMULATE	Clarify whether the instruction is well understood.	
STIMULATE	Communicate to whom and how the pupil can ask for help.	
STIMULATE	Consider reduced concentration.	
STIMULATE	Apply pre-teaching and extra instruction after the class instruction.	
STIMULATE	Offer structure:	

Type	Possible STICORDI measures	Applicable
	- in time: day-week format, during activity, end of the day ... - in space: proximity teacher, buddy ... - during activities: expressing thinking steps, using step-by-step plans.	
STIMULATE	Do not evaluate individual results in the classroom in a confrontational way.	
STIMULATE	Checking if notes and agenda are duly completed.	
COMPENSATE	Provide more time for large tasks / tests / exams.	
COMPENSATE	Spreading tests and exams in time in consultation with other teachers.	
COMPENSATE	Provide exams in a separate room.	
COMPENSATE	Read questions during tests / exams.	
COMPENSATE	Error-free copies provided with fill-in sheets.	
COMPENSATE	Allow tools in the classroom: calculator / times tables / tables / formulas / step-by-step plans /solution cards / dictionary / ...	
COMPENSATE	Allow tools when creating tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Offer a clearly structured content and give this structure to the pupil.	
COMPENSATE	Customize Layout: clear font, wide line spacing.	
COMPENSATE	Adjustments for book reviews: film instead of the book review/ allow easier reading / large textbook /....	
COMPENSATE	Create homework tasks.	
COMPENSATE	Allow the pupil to have access to the whole subject matter.	
COMPENSATE	Give one colour per box for folders, covers, notebooks.	
COMPENSATE	Put the pupil in a strategically good position.	
COMPENSATE	Enlist the help of the parents for homework assistance.	
COMPENSATE	Provide copies with notes, completed agenda or help / check.	
COMPENSATE	Adjust the amount of exercises and task.	
COMPENSATE	In the case of tests, indicate course material in advance and go over examples to give a possibility to ask questions, clear questions.	
PERSPECTIVE	Classroom exercises and homework confined to the base material.	

Type	Possible STICORDI measures	Applicable
PERSPECTIVE	Assess the real key (points for the important subject matter).	
PERSPECTIVE	Provide a second chance: do not punish catch-ups / catch-up tests / forgotten tasks / postpone tasks / see if all assignments have been filled in with tests / tasks / exams.	
PERSPECTIVE	Language errors cannot be included in the subject matter where this is not relevant.	
PERSPECTIVE	In dictation only mark the practiced words.	
PERSPECTIVE	Complete words dictation instead of sentence dictation.	
PERSPECTIVE	Provide extra guidance after school hours.	
PERSPECTIVE	Limit exercises and tasks to the basic material.	
PERSPECTIVE	When arranging/ practicing/ repeating the subject matter, adjust between the various people involved (teacher, ZC, out-of-school help, GON, parents, the pupil ...) over the school years.	
DISPENSING	Permanent /temporary /partial /complete exemption provided for certain final objectives.	
DISPENSING	Exemption of exercises in front of the class.	
DISPENSING	Exempt from reproducing statements or proofs from memory.	
DISPENSING	Exemption of certain questions at test or exam: multiple choice / ...	
DISPENSING	Exemption from the written exam.	

NLD (Nonverbal Learning Disabilities)

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	To be aware of the problem of the pupil and to take it into account.	
STIMULATE	Make the measures in the classroom open to discussion (if the parents and the pupil so wish).	

Type	Possible STICORDI measures	Applicable
STIMULATE	Do not evaluate individual results in the classroom in a confrontational way.	
STIMULATE	Motivation and encouragement.	
STIMULATE	Checking whether notes and tasks are filled in properly.	
STIMULATE	Accompany when completing notes and agenda.	
STIMULATE	Check whether the assignment is well understood.	
STIMULATE	Communicate to whom and how the pupil can ask for help.	
STIMULATE	Consider reduced concentration.	
COMPENSATE	Provide more time for large tasks / tests / exams.	
COMPENSATE	Spreading tests and exams in time in consultation with other teachers.	
COMPENSATE	Provide exams in a separate room.	
COMPENSATE	Read questions during tests / exams.	
COMPENSATE	Allow tools in the classroom: calculator / times tables / tables / formulas / step-by-step plans /solution cards / dictionary / ...	
COMPENSATE	Allow tools when doing tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Allow tools when creating tasks: calculator / times tables / tables / formulas /step-by-step plans / solution maps / dictionary / ...	
COMPENSATE	Offer a clearly structured content and give this structure to the pupil.	
COMPENSATE	Custom layout: clear font, spacious line spacing.	
COMPENSATE	Adjustments for book reviews: film instead of the book review / allow easier reading / large textbook / ...	
COMPENSATE	Create homework tasks.	
COMPENSATE	Allow the pupil to have access to the whole subject matter.	
COMPENSATE	Put the pupil in a strategically good position.	
COMPENSATE	Enlist the help of the parents for homework assistance.	
PERSPECTIVE	Limit class exercises and homework to the basic material.	
PERSPECTIVE	Language errors cannot be included in the subject matter where this is not relevant.	
PERSPECTIVE	Provide a second chance: do not penalize / postpone catch-up / catch-up tests / forgotten tasks give in tasks /	

Type	Possible STICORDI measures	Applicable
	see if all assignments have been completed in tests / tasks / exams.	
PERSPECTIVE	Assess the real key (points for the important subject matter).	
PERSPECTIVE	Evaluate calculation errors less if the structure and reasoning behind the solution is correct.	
PERSPECTIVE	For dictation only mark the practiced words.	
PERSPECTIVE	Complete words dictation instead of sentence dictation.	
PERSPECTIVE	Provide extra guidance after school hours.	
DISPENSING	Permanent /temporary /partial /complete exemption provided for certain final objectives.	
DISPENSING	Exemption of exercises in front of the class.	
DISPENSING	Exemption from mental arithmetic.	
DISPENSING	Exempt from reproducing statements or proofs from memory.	
DISPENSING	Exemption from the lessons LO.	
DISPENSING	Exemption of certain parts of the lessons LO.	
DISPENSING	Exemption of certain questions at test or exam: multiple choice / ...	
DISPENSING	Provide a safe place to calm down/relax.	

Socio-Motor Development (ASD)

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	To be aware of the problem of the pupil and to take it into account.	
STIMULATE	Trust relationship with the pupil for his/her well-being, commitment and self-confidence.	
STIMULATE	Encouraging engagement: provoking activities in function of participation.	
STIMULATE	Discrete observation. Literally enough distance with accompanying interventions.	

Type	Possible STICORDI measures	Applicable
STIMULATE	Creating conditions for (motor) learning: social safety, rest and structure, breathing and tonus regulation.	
STIMULATE	Practice forms that meet 'enjoying the exercise'.	
STIMULATE	Social contact: do not shrug, not respond too quickly (even positively evaluating) to budding social contact-name (risk relapse).	
STIMULATE	Socio-motoric 'poor' work forms: mimic, working in a class (merging with the group).	
STIMULATE	Enough material challenge in the short proximity of the child.	
STIMULATE	Encourage success in what the pupil can do well.	
STIMULATE	Draw a purpose by explaining what the pupil is doing, why she/he is practicing.	
STIMULATE	Create a class atmosphere that accepts pupils with learning disabilities.	
STIMULATE	Encourage peer work (A fellow pupil can be a tutor for the another one).	
STIMULATE	Ensure a good relationship and a secure environment.	
STIMULATE	Do not give too many reading tasks, this can be counterproductive.	
STIMULATE	No unrealistic expectations.	
STIMULATE	Create a positive climate around reading and books.	
STIMULATE	Give homework and complete agenda at a quiet time, e.g., not when the school bell rings.	
STIMULATE	Provide a suitable place in the classroom.	
COMPENSATE	Extra help to facilitate implementation.	
COMPENSATE	To respect the own socio-motor development rate of the child.	
COMPENSATE	Socio-motor learning line: to stand still for a long time at every step.	
COMPENSATE	Observing and evaluating (pupil involved in the function of the level of development).	
COMPENSATE	Do not force social contact in the threatening body zone (20 cm from the body).	
COMPENSATE	Stimulating object-oriented contact as an introduction to possible personal contact.	
COMPENSATE	Physically not helping (is often not allowed), but 'letting' help.	
COMPENSATE	Limit the social 'threat' of the fellow pupils, also on the playground	
COMPENSATE	No educational conversations (e.g., with fellow learners) without the person concerned.	

Type	Possible STICORDI measures	Applicable
COMPENSATE	Avoiding learning conversations: offering 'slow' learning lines "Yes" / "No" questions.	
COMPENSATE	Structure: also, attention for 'attention deficit'.	
COMPENSATE	Provide more time for reading.	
COMPENSATE	Provide more time for written assignments.	
COMPENSATE	Fewer jobs at the same time.	
COMPENSATE	Prepare texts in advance.	
COMPENSATE	Do word processing and spelling correction.	
COMPENSATE	Guide to use compensation software (for reading programs) for independent learning.	
COMPENSATE	Have the prepared dictation.	
COMPENSATE	Read assignments for the tests.	
COMPENSATE	Enlarge font or texts.	
COMPENSATE	No too busy page filling, clear structure.	
COMPENSATE	Use word prediction, visual support such as algorithm for verbs, spelling card, sound feet and etc.	
COMPENSATE	Resources: reading slat, cover sheet, display.	
COMPENSATE	Work with spelling cards, solution plan, search strategies such as a word check, word prediction or (digital) dictionaries.	
COMPENSATE	Allow to use notes from a classmate.	
COMPENSATE	Explain orally instructions for written assignments.	
COMPENSATE	Custom home tasks.	
COMPENSATE	Fill-in work instead of overwriting.	
COMPENSATE	Spelling errors outside of dictations are not marked.	
COMPENSATE	Do not read out loud in the lesson without being asked; read aloud while reading.	
COMPENSATE	Texts that have to be read in class, read out by other pupils or read aloud by the teacher. Allow the use of technology for supporting reading.	
COMPENSATE	Easy reading books.	
COMPENSATE	Provide extra time for exercises and assignments.	
COMPENSATE	Provide good, corrected copies of notes and exercises; check the workbooks; the teacher should give a table diagram or mind map to clarify the content of the lesson.	
COMPENSATE	Book reviews are used for struggling readers or alternatively a film can be summarized.	
COMPENSATE	Provide copies of notes and board diagrams. This can also be a copy of a fellow pupil.	
COMPENSATE	Allow tools such as spelling lists, control cards, an electronic dictionary, a word processor / laptop (possibly with speech recognition or prediction software).	

Type	Possible STICORDI measures	Applicable
COMPENSATE	Answering questions and assignments in a schematic way and having them verbally explained.	
COMPENSATE	Whether or not at the request of the pupil, questions are explained by the teacher (checking whether questions and instructions are understood - giving the opportunity to ask for clarification).	
COMPENSATE	Show pupils that they did not fill in certain questions or the answer is incomplete.	
COMPENSATE	Do not dictate or write on board questions or assignments for tests and written examinations.	
COMPENSATE	Placing assignments for the test and written exams / putting them on tape (Dictaphone, mp3) / putting them on the computer, so that the pupil can work with text-to-speech software.	
COMPENSATE	The pupil may, in agreement with the teacher, use learning cards with a spelling algorithm, mathematical scheme, mathematics formulas, in certain exercises.	
COMPENSATE	Allow sufficient time for making test pieces for all subjects.	
COMPENSATE	20 percent more time seems reasonable, but the consultation with the pupil may give a different result based on the experience. Especially with multiple choice questions more time is important and reading is often necessary.	
COMPENSATE	When listening to tests, provide the pre-recorded recording in a specific room to work.	
COMPENSATE	In addition to written testing, regular oral testing. The pupil is given the opportunity to explain written tests orally.	
REMEDY	Adjust expectations to the level of the child.	
REMEDY	Raise the pupil to a higher level through adapted activities.	
REMEDY	Request information from parents about the child’s social behaviour in non-school situations.	
REMEDY	Identify the causes of weaker performance in order to better attune the guidance.	
REMEDY	Request information (or further research) in connection with sensory abnormalities and developmental disorders.	
REMEDY	Individual assignments.	
REMEDY	Use humour.	
REMEDY	Reduce something to its real importance, put things in perspective.	
REMEDY	Breathing exercises (stress-reducing).	

Type	Possible STICORDI measures	Applicable
REMEDY	Giving sense of being 'free of supervision'.	
REMEDY	Physical awareness-raising activity; e.g., yoga, individual practice forms.	
REMEDY	Contact-poor practice forms.	
REMEDY	Exciting tasks.	
REMEDY	Practice forms that connect to the pupil 's immediate field of interest.	
REMEDY	Frequent safe movement activities.	
REMEDY	Well-known work forms.	
REMEDY	Repeat often (recognisability, safety).	
REMEDY	Opportunities: - work with the “axenroos”, a model to characterize the interaction between people - working with living wrenches	
REMEDY	Playground Listing: possibilities for motor-driven individual activities.	
REMEDY	Visualize words.	
REMEDY	Speed reduction by putting dashes between words.	
REMEDY	Increasing the temperature by singing.	
REMEDY	Use flash cards.	
REMEDY	Use of word rows.	
REMEDY	Spelling script.	
REMEDY	Step-by-step plan for spelling.	
REMEDY	Systematic imprinting of stumbling words, spelling rules and strategies.	
DISPENSING	Stress and tolerance-reducing measures.	
DISPENSING	The teacher is always accessible (confidential advisor).	
DISPENSING	Granting the child his own pace when installing social contact.	
DISPENSING	Use minimum requirements.	
DISPENSING	Giving up patience.	
DISPENSING	Differentiate with exercises that are socially stress-free.	
DISPENSING	Allow body language as a form of communication.	
DISPENSING	Let them work individually.	
DISPENSING	Allow controlled flight behaviour: pupil is allowed to stand aside.	
DISPENSING	The part of spelling won’t be evaluated or will be quoted differently.	
DISPENSING	Word dictation; overwrite dictation sentences.	
DISPENSING	Exemption from writing difficult memorized words or dictations.	
DISPENSING	Exemption from spelling in the French language.	

Type	Possible STICORDI measures	Applicable
DISPENSING	Exemption from spelling assessments in the Dutch courses.	
DISPENSING	Exemption from spelling errors in all other subjects.	
DISPENSING	Situations in which the pupil must present him/herself in front of others, measure class group, work group, partner, etc. on the social development level of the pupil.	

Problems with Rhythm, Tempo in the Classroom

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	Empower the child continuously (verbally or materially e.g., reward stickers).	
STIMULATE	Leave the pupils as much as possible the sense of measure and tempo to become aware of in other ways (moving of the body, stepping, folding, use rhythmic percussion instruments).	
COMPENSATE	Replace the difficult movement with a movement ahead of the pupils if it becomes easier experienced, for example, replacing beat by tapping with fingers, tapping with the foot or another physical exercise that the pupils used spontaneously.	
COMPENSATE	First let the rhythm speak.	
COMPENSATE	Repeat the exercise several times.	
COMPENSATE	Have pupils use sheets on which the given rhythms are listed.	
REMEDY	Start from simple rhythms and gradually increase the difficulty level, starting from the previous correctly executed rhythm.	
REMEDY	The use of a metronome may be possible, help out. This can only work if the pupil can divide attention between listening to the metronome and reading and / or playing rhythm.	
REMEDY	Physically experience tempo, meter, and rhythm.	
DISPENSING	Leave a beat if compensating (tapping with fingers) fails.	

Dictation

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	Use recognizable melodies, this works much better for pupils with dyslexia, for example.	
STIMULATE	Empower the child continuously (verbally or materially e.g. reward stickers).	
STIMULATE	Different types of dictations such as: - choice of tuition - hose effect - interpretation - improvements -oral dictation.	
STIMULATE	Use melody lines with striking differences: - rising and falling scales - triads - combination of both.	
COMPENSATE	Let pupils use different colours for rhythm and melody, e.g., green for rhythm and red for melody.	
COMPENSATE	Let pupils replay the dictation on the instrument or reading instead of writing on the paper.	
COMPENSATE	Offer structures how the melody line runs.	
COMPENSATE	Allow rhythm cards with the rhythms used as a supportive tool.	
COMPENSATE	Use custom staves (increase space) for pupils for whom writing is hard.	
REMEDY	For learning delayed pupils repetition is always Important but it may still be that no improvement is noticeable.	
REMEDY	Let the rhythmic structure / patterns repeat = awakening.	
REMEDY	Let the melodic line sing = awareness.	
REMEDY	Follow the melodic line by hand.	
REMEDY	Pupils with developmental disorders usually have a good memory but have one weak insight which makes the transfer difficult.	
REMEDY	Pupils with learning disabilities also have a great need for repetitions.	
DISPENSING	In a class with pupils who have learning disabilities one can omit the difficult rhythms (basic learning material).	

Type	Possible STICORDI measures	Applicable
DISPENSING	Instead of specific assessment moments, permanent evaluation can be an option (daily work).	
DISPENSING	Avoid combined dictations (melo-rhythmic).	

Performance Anxiety

Name pupil: _____

Class: _____

Period: _____

Type	Possible STICORDI measures	Applicable
STIMULATE	Put the groups together with pupils who are the failure-anxious for pupils to feel safe.	
STIMULATE	Create a safe environment: recognize the pupil's feelings.	
STIMULATE	Deal smoothly with errors and do not dwell on them.	
STIMULATE	As a teacher, emphasize the progress that the pupil makes.	
STIMULATE	Radius as a teacher rests, give a good example.	
STIMULATE	Work on a positive self-image of the pupil: avoid negative thoughts.	
STIMULATE	Confirm what they can already do: play repetitions.	
STIMULATE	Speak repeatedly about, e.g., the personality of the pupil and what the pupil does.	
STIMULATE	Set real goals.	
COMPENSATE	Provide an alternative to the way of evaluating, e.g., let the pupils have a small concert play instead of a classic 'exam'. Let the pupil choose if he / she trusts this want to play public or not. In other words, pupils can decide how they will participate in the concert or examination.	
COMPENSATE	Evaluate only with permanent evaluation.	
COMPENSATE	Work out a good study method together with the pupil.	
COMPENSATE	Play more on the experience than on technical failure.	
COMPENSATE	Have the pupil record a safe follow-up role instead of a leading role during teamwork.	
COMPENSATE	Allow pupils sufficient time.	
REMEDY	Depart as much as possible from an authentic learning situation.	
REMEDY	Teach pupils to formulate positive, constructive comments.	

Type	Possible STICORDI measures	Applicable
REMEDY	Teach pupils to overcome the fear by taking the trouble in small steps to be overcome.	
REMEDY	Teach pupils reflect on themselves, the piece of music and its performance.	
REMEDY	Teach pupils low breathing. Good breath control teaches pupils rest.	
DISPENSING	Do not allow pupils to come individually. This generally also takes a lot of time.	
DISPENSING	Never allow pupils to perform at the front of a class (dictation, preliminaries)	
DISPENSING	Exemption from executing from memory.	

Lesson Plan Examples – Bulgaria

Contributors: Andrean Lazarov (Marie Curie Association, Bulgaria), Snezhana Ilieva, and Valeria Vitanova (Sofia University “St. Kliment Ohridski”, Bulgaria)

Lesson 1 (Mathematics)

Subject Matter: Mathematics

Topic of the lesson: Acquiring knowledge about the number 5

The age group*:* 1st - 2nd grade

Estimated time of the activity (approx.): up to 30 min

Special needs group: Autism spectrum disorder

Learning Objectives:

- To acquire knowledge about the number 5

Expected learning outcomes:

- Acquired knowledge about the number 5

Materials and technologies are needed for the lesson: Use a tablet with an educational game to write the number 5 and relate the quantity to number.

Instructional procedures

Activities	**The use of ICT**
1. Introduction **2. Interaction** (Understanding the meaning) **3. Practical part** (practicing, problem solving)	I. The teacher prepares a visual plan-schedule with specific tasks and timekeeping for each of them: 1) Outlining of relief figure 5 and its colouring; 2) Writing the number 5 in a plate with couscous; 3) Making the number 5 from plasticine (with support); 4) Correlation of quantity to number: From an empty blister of drugs the teacher cuts out a form with 5 nests and marks it with the number 5 by giving the pupil 5 balls to put in the nests; 5) Educational game on a tablet for writing the number 5 and correlating quantity to number; 6) At the end the whole class sings a song about the numbers, and on the 5th they get up and dance; 7) At the end of the class the pupil receives a balloon in the shape of a 5 for a job well done. II. The pupil performs the tasks from the schedule in the order of their sequence. / duration of the lesson 35 minutes /
Enrichment activities and adjustments for children with special needs	The use of ICT and calculation abilities are improved; strengthening the concentration, memory perception and request and response abilities.

Lesson 2 (Digital competences)

Subject Matter: Digital competences

Topic of the lesson: To acquire basic skills for creating a graphical user interface and for writing simple codes that must be executed by a program

The age group*:* 8th - 10th grade

Estimated time of the activity (approx.): up to 40 (45) min

Special needs group: Autistic spectrum disorder

Learning Objectives:

- To acquire basic skills for creating a graphical user interface and for writing simple codes that must be executed by a program

Expected learning outcomes:

- Acquired basic skills for creating a graphical user interface and for writing simple codes that must be executed by a program

Materials and technologies are needed for the lesson: We use a computer and the Visual Basic Express program

Instructional procedures

Activities	**The use of ICT**
1. **Introduction** 2. **Interaction** (Understanding the meaning) 3. **Practical part** (practicing, problem solving)	The teacher shows the basic controls that the pupil needs to draw in the form, as well as where to find the appropriate properties. The teacher gives the pupil the code so he can copy it and shows him where to write it. At the end they consolidate again what has been done step by step and save the work.

Enrichment activities and adjustments for children with special needs	The use of ICT and writing simple coding.

Lesson 3 (Bulgarian language and literature)

Subject Matter: Bulgarian language and literature class

Topic of the lesson: Conclusion on vowel sounds and their letters / summary lesson /

The age group*:* 1st - 2nd grade

Estimated time of the activity (approx.): up to 30 min

Special needs group: Cerebral palsy

Learning Objectives:

- To conclude on vowel sounds and their letters / summary lesson /

Expected learning outcomes:

- Being able to conclude on vowel sounds and their letters / summary lesson /

Materials and technologies are needed for the lesson: A PPT presentation was used in which a summary was made in the form of a game.

Instructional procedures

Activities	**The use of ICT**
1. **Introduction**	1. The vowel sounds are negotiated: the teacher pronounces the vowel sounds, and at the same time

2. **Interaction** (Understanding the meaning) 3. **Practical part** (practicing, problem solving)	shows the pupil a pictorial support, starting with the corresponding sound. 2. The activity is repeated with other pictures, and the pupil is asked to answer whether the picture starts with the given vowel sound. 3. When showing a supporting picture, the pupil is required to make the appropriate sound. In case of error, it is applied only for the wrong sound - a total of 8 minutes. 4. Independent activity of the pupil. A set of vowels and supporting pictures with objects starting with vowels and random pictures is distributed. The child is required to arrange the maximum number of pictures starting with each vowel. 5. Independent manipulative activity of the pupil: the child is offered to choose a picture with the outline of an object, starting with a loud sound and to colour it. The colour version of the item is also available - 10 min. 6. Final course of the lesson - 3 minutes. The pupil shares whether he liked working with these letters and what made it difficult. He receives praise for the job well done.
Enrichment activities and adjustments for children with special needs	The use of ICT and concluding on vowel sounds and their letters

Lesson Plan Examples - Latvia

Lesson 1 (Electricity, preschool)

Contributor: Linda Daniela (University of Latvia, Latvia)

The activity - **Batteries and Circuits**

The age group: primary school

The objective of the activity: to raise children's awareness that batteries supply electricity and that they can be handled safely.

Estimated time of the activity (approx.): up to 40 min

Materials/tools needed:

- Children to bring in a battery operated toy, torch or bike light
- Drawing paper and pencils

Additional resources: www.switchedonkids.org.uk; http://www.bbc.co.uk/schools/scienceclips/ages/6_7/electricity.shtml

Plan of the activity

Part of the activity	**Content**	**Comments how to use this activity for pupils with special needs**
Introduction	Before the activity the teacher starts the discussion with children by asking them questions: o Do you know what electricity is? o Do you know which devices work on electricity? o Do you have any idea where electricity comes from? o Do you know where we can keep electricity?	Teachers may have in their class pupils with vision impairments and for them it can be difficult or impossible to see the signs + and – on battery to find the differences. It is suggested to use batteries where the signs can be touched. If not, then the teacher should prepare touchable + and – signs to let children touch them and find the differences. It could be cartoon, fleece or wood.

Classroom activities	1. Children show each other their toys and explain what the toy can do when it has batteries included and what happens when it doesn't have them in. 2. Select a small number of toys which use different types of batteries. Help children take the batteries out of the toys and look at their different shapes and sizes, i.e., rectangular/cylindrical/large/small. 3. Discuss with the children why some toys use more batteries than others or use a different size of battery. 4. Put the toys into groups according to the types of batteries they use. 5. Record results graphically, children could pictorially represent the toys and shape of the battery, i.e. using a tally chart or bar graph. 6. Ask the children to find **+** and **–** signs on batteries and ask them what they think they mean. Ask the children where they have seen these signs before. 7. Help the children to put the batteries into the toys. Put the batteries in the wrong way and ask the children to predict what will happen. 8. Children practise putting the batteries in and taking them out.	If there is a child in the class who has any assistive device to support him/her (hearing aid, electric wheelchair etc.) teachers can organize the activity where pupils who use these assistive technologies explain how they work and what kind of battery is used and how often they should be changed or charged.

Discussion	○ The teacher asks question - what is the difference between + and - sign on batteries? ○ Why is it important? ○ Where else we can collect electricity?	If there is a child with hearing impairments in the class the teacher should prepare written explanations for the topic or find a short video with visual interpretation of the topic. The teacher should try to repeat comments and questions asked by other pupils who are not in the range of vision of the hearing-impaired pupil or encourage pupils to speak in a way to allow pupils with hearing impairments see the speaking pupil
Expected outcomes	○ The children should be aware that batteries supply electricity. ○ That items which use batteries can be handled safely. ○ The children should be able to make connections in circuits to the positive and negative poles of the battery.	

Lesson 2 (English, 5th grade)

Contributor: Svetlana Surikova (University of Latvia, Latvia)

Subject Matter: English as a Foreign Language (EFL)

Topic of the lesson: Countable and uncountable nouns

The age group: 10-11 year olds (5th grade)

Estimated time of the activity (approx.): 40-45 min.

Special needs group:

An inclusive pedagogy approach is used at the lesson (classroom design for all, multisensory approach). The lesson can be adjusted for children with learning disabilities such as dyslexia and dysgraphia.

Learning Objectives:

- To learn to identify countable nouns and uncountable nouns.
- To repeat the use of numerals (1-100).
- To repeat the vocabulary of food and drinks.
- To practice and improve listening, speaking, reading and writing skills.

Expected learning outcomes:

By the conclusion of the lesson, pupils will:

- be able to identify countable nouns and uncountable nouns;
- give examples of countable nouns using numerals (1-100) or some additional words such as *many, some, several, few, a few, a lot of / lots of*;
- give examples of uncountable nouns using some additional words such as *much, some, a little, a lot of / lots of*.

Materials and technologies are needed for the lesson: computer, digital projector, interactive whiteboard, internet access, two versions of worksheets ("Countable nouns or uncountable nouns") as well as laptops, tablets or smartphones for individual use, an individual MS Word worksheet or printout, countable and uncountable food flashcards and a list of countable and uncountable food nouns with pictures.

Instructional procedures

Activities	**The use of ICT**
Introduction and warm up	
Activity A: A teacher can start with a quick review on nouns and discuss what a noun is, allowing pupils to share several examples of nouns. There are two examples on the interactive whiteboard. The	An interactive whiteboard is connected to a computer or projector so that images may be presented or projected on the interactive whiteboard.

teacher explains that there are other labels for nouns.

cheese

For example, due to the fact that nouns can be counted or can't be separated or counted, there are "countable nouns" (for example, one apple, 2-100 apples) and "uncountable nouns" (for example, cheese, milk, juice, bread).

apple

Interaction (understanding the meaning)

Activity B: The teacher offers pupils to watch the video and complete a table in the pupil activity book writing some (3-4) examples of countable and uncountable nouns.

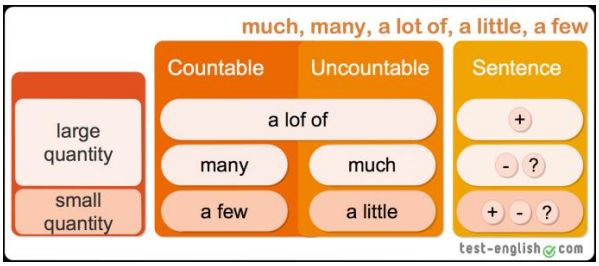
Countable nouns	Uncountable nouns
1. …. 2. …. 3. …. 4. ….	1. …. 2. …. 3. …. 4. ….

The video is presented or projected on the interactive whiteboard.

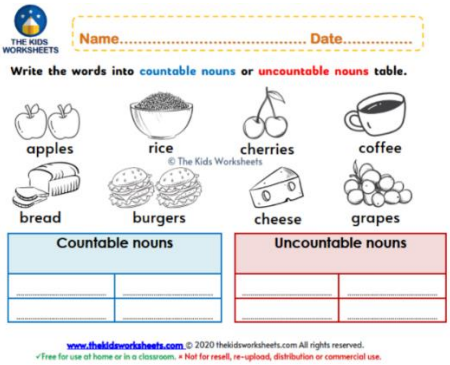
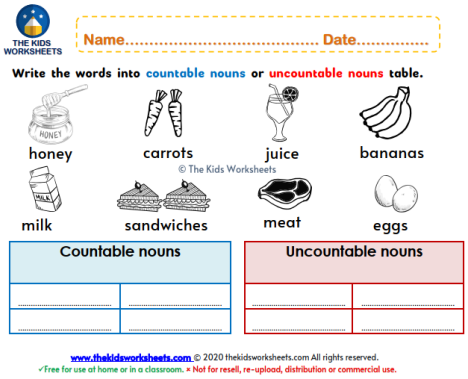
The video "Countable & uncountable food in English: Food and drinks vocabulary" retrieved from https://www.youtube.com/watch?v=1SbJ1B1MTQg

Activity C: The teacher explains the use of numerals and some additional words using the grammar table. It should be concluded that countable nouns have singular and plural forms and can be used with numerals (1-100) or some additional words such as

The grammar table is presented or projected on the interactive whiteboard.



The grammar table is retrieved from https://test-english.com/explanation/a1/much-many-lot-little-few/

many, some, several, few, a few, a lot of / lots of. While uncountable nouns can be used only in the singular form using the words such as *much, some, a little, a lot of / lots of*. Some examples of affirmative sentences are provided. The pupils write those sentences in their exercise books.	<table><tr><td>Countable nouns</td><td>There are a few apples on the table. There are a lot of apples on the table.</td></tr><tr><td>Uncountable nouns</td><td>There is a little water on the table. There is a lot of water on the table.</td></tr></table>
Practical part (practicing, problem solving)	
Activity D: The pupils work in pairs. One half of pairs will work with the first worksheet, another – with the second worksheet: they read in pairs the nouns given and write the words into the table. Each pupil completes his/her worksheet individually after collaborative discussion in pair. Then they discuss how to write 4-8 sentences using the words from the table appropriately. *There is … on the table.* *There are … on the table*.	One of the worksheets could be presented or projected on the interactive whiteboard.  The first worksheet “Countable nouns or uncountable nouns” retrieved from https://www.thekidsworksheets.com/downloads/countable-nouns-or-uncountable-nouns/  The second worksheet “Countable nouns or uncountable nouns” retrieved from https://www.thekidsworksheets.com/downloads/countable-nouns-or-uncountable-nouns-2/

Activity E: The teacher asks pupils to participate in a fun and useful activity using the online grammar quiz. Pupils read the nouns and discuss in pairs whether they can count those nouns or not. Then they vote and the teacher makes a choose taking into account the opinion of the majority. The teacher reads an explanation and translates into the national language (if necessary). The total score of the completed quiz is available and can be discussed immediately.	The animated musical video is presented or projected on the interactive whiteboard.  The online grammar quiz is presented or projected on the interactive whiteboard. The online quiz “Can you count these items or not?” (by Kenneth Beare) retrieved from https://www.thoughtco.com/countable-or-uncountable-noun-quiz-4066957
Reflection / assessment / self-assessment time	
Activity F: The teacher uses the activity for formative assessment. The teacher asks pupils to share some examples of countable or uncountable nouns and tell how they would express quantity for each example using the following type of the sentence: *There is/are…* numerals and additional words. Everyone can express his/her emotions and thoughts regarding the lesson reflecting on what I knew, what I learned, and what difficulties I had. At the end of the lesson, the teacher offers to listen to a song and to sing along.	The animated musical video on count and noncount nouns retrieved from https://www.youtube.com/watch?v=OqVueNN2GQo The alternative animated musical video retrieved from https://www.youtube.com/watch?v=fUvQ-adlF7w
Enrichment activities and adjustments for children with special needs	
Enrichment (*Activity E*):	

Pupils can use the online grammar quiz individually and get his/her own score. There are various additional online grammar quizzes available via internet (section “Additional self-assessment tools”).	An individual tablet or smartphone
Adjustments: *A student with dysgraphia and/or dyslexia (Activity B, C, & D)* An individual MS Word worksheet via a laptop or tablet can be used and a pupil can type the words and/or sentences. Using a tablet or smartphone instead of physical handwriting, a pupil can record her/his own audio examples of sentences or using speech-to-text options (for example, a dictation tool in MS Word) to transform his/her voice into editable text.	An individual laptop, tablet or smartphone can be used to provide alternatives to reading assignments (using text-to-speech options, for example, Microsoft Immersive Reader) and/or written assignments (using typing, audio recording or speech-to-text options instead of physical handwriting).
A printout with necessary words, sentences, grammar tables can be used, a pupil can highlight key areas and draw thumbnail pictures in the margin to represent the most important points.	Countable and uncountable food flashcards and a list of countable and uncountable food nouns with pictures retrieved from https://games4esl.com/countable-and-uncountable-food-list/#Materials_To_Teach_Countable_And_Uncountable_Food
The pupil can write more words and sentences using additional printed countable and uncountable food flashcards and/or a list of countable food nouns with pictures.	

Additional self-assessment tools

Assessment (Optional)	**The use of ICT**
Pupils use individual tablets or smartphones to apply multiple additional online grammar quizzes.	Online grammar quizzes: *Countable and Uncountable* https://www.montsemorales.com/gramatica/CountableSpot1-6.htm *Online Grammar Quiz: Countable or Uncountable?* https://www.usingenglish.com/quizzes/210.html *Countable and Uncountable Nouns* http://www.english-room.com/grammar/countable_uncountable.htm

References / Materials

1. A grammar table “Much, many, a lot of, a few, a little” is retrieved from https://test-english.com/explanation/a1/much-many-lot-little-few/
2. A video “Countable & uncountable food in English: Food and drinks vocabulary” retrieved from https://www.youtube.com/watch?v=1SbJ1B1MTQg
3. An animated musical video on count and noncount nouns retrieved from https://www.youtube.com/watch?v=OqVueNN2GQo
4. An animated musical video “Count and noncount nouns” retrieved from https://www.youtube.com/watch?v=fUvQ-adlF7w
5. An online quiz “Can you count these items or not?” (by Kenneth Beare) retrieved from https://www.thoughtco.com/countable-or-uncountable-noun-quiz-4066957
6. Countable and uncountable food flashcards and a list of countable and uncountable food nouns with pictures retrieved from https://games4esl.com/countable-and-uncountable-food-list/#Materials_To_Teach_Countable_And_Uncountable_Food
7. The first worksheet “Countable nouns or uncountable nouns” retrieved from https://www.thekidsworksheets.com/downloads/countable-nouns-or-uncountable-nouns/
8. The second worksheet “Countable nouns or uncountable nouns” retrieved from https://www.thekidsworksheets.com/downloads/countable-nouns-or-uncountable-nouns-2/

Lesson 3 (English, 1st grade)

Contributor: Dita Nimante (University of Latvia, Latvia)

Subject Matter: English (1st grade)

Topic of the lesson: My body

The age group*:* 1st grade

Estimated time of the activity (approx.): up to 40-45 minutes

Special needs group: An inclusive pedagogy approach is used in the lesson (classroom design for all, multisensory approach). The lesson can be adjusted for children with special needs (mild cognitive disabilities, visual disability, hearing disability)

Learning Objectives:

- Repeat the use of numeric words (1-10)
- Learn new vocabulary (Body parts: head, nose, ears, eyes, chin, mouth, hands, hands, toes, feet, feet, toes), learn the sentence: “This is me!”
- Continue with general skills development:
    - Practice listening skills.
    - Practicing talking skills.
    - Practicing writing skills.

Expected learning outcomes:

- Will be able to identify some body parts in English,
- Will use some/all new vocabulary (Body parts: head, nose, ears, eyes, chin, mouth, hands, hands, toes, feet, feet, toes), by repeating it with the help and independently,
- Write some/all new vocabulary (Body parts: head, nose, ears, eyes, chin, mouth, hands, hands, toes, feet, feet, toes), by copying it.

Materials and technologies are needed for the lesson: Computer, Interactive Blackboard, Internet access, Work sheets (“Your body”), (in addition: prepared game “LOTTO”)

Instructional procedures

Activities	**The use of ICT**

1. Introduction	
a. A teacher asks pupils to guess what they are we going to learn today. The teacher can tell pupils: someone or something is hiding in the Interactive blackboard, let's help to release him/it. Invite pupils to ask questions and make guesses. After the teacher reveals the picture, the teacher introduces the topic of the lesson and learning outcomes.	Use Interactive board There is the picture revealed. Retrieved from: https://www.education.com/worksheet/article/parts-human-body/
2. Interaction (Understanding the meaning)	
b. The teacher fills in the boxes with appropriate words one by one. The teacher asks children to touch the body part that she names (children can sit or stand up). After that, they all together (as a choir) repeat words. It can be done several times.	Video Body Parts Song for Kids - This is ME! By ELF Learning Retrieved from: https://www.youtube.com/watch?v=QkHQ0CYwjaI
3. Practical part (practicing, problem solving)	
Listening activity **c.** The teacher tells pupils: listen to the song and sing along: Body Parts Song for Kids - This is ME! The song can be repeated several times.	Interactive board
d. Talking activity After that the teacher closes the boxes with words and asks pupils to help to remember them. At first, the teacher allows children to name the words of body parts they remember (the child has to raise his hand). After children recall the word, the box can be opened (can be done by the teacher, or the teacher can ask the pupil to do it). It can be repeated several times, the teacher can invite some children to come to the desk and try to guess as many words as possible.	

e. (Additional activity LOTTO (if there is extra time or the class is working fast) The teacher can divide the class in several groups (four pupils in each group). Give 3- 5 (depends on the class) minutes to do the task. Each child receives the card of the role he will perform in the group: materials manager (who will collect the LOTTO at the beginning of the game and at the end of the game will put it in the box), leader (who will remind the task and roles to everyone), checker (checks for accuracy), time keeper (keep track of time). Every group receives the template and ready-made cards. Teams have to put the right card in the right place. First team, who have finished, stands up and all together say "Body parts". After that they receive the worksheet and they have to check their work. **f.** Writing activity. Every child gets a "Your Body" worksheet. The child writes the appropriate words in the boxes.	
4. Reflection/assessment/self-assessment time (what we have learned, evaluate your learning)	
g. The teacher uses the activity for formative assessment: Tell your neighbour what you have learned today. How many words can you remember? Recall them, your neighbour will count them for you. Tell the results to the class.	
Enrichment activities and adjustments for children with special needs (The use of ICT)	
Child with mild mental disorders (activity f):	Regular computer or tablet (possibility to zoom to enlarge the text)

a pre-made worksheet with body part descriptions, the pupil has to swipe with another pen over the words. Or he can fill in less boxes, write less words (for example, 3-5). Child with visual impairment ((activity a, f) (can use the help of the teacher or assistant): Uses Computer to enlarge the worksheet and words (body parts).	
Children with hearing impairment (throughout all lesson). Assistive technologies are used	Personal FM system can be used. Teachers can use wireless microphones throughout the lessons. (An audio signal is sent via FM radio waves directly to whatever assistive hearing devices the pupils are wearing.)

Additional assessment/ assessment activities/ assessment tools (if relevant)

Assessment (Optional)	The use of ICT
Children use mobile phones to answer the questions about body parts.	*Kahoot (game-based learning platform)* https://kahoot.com/

References/ Materials

Body Parts Song for Kids - This is ME! by ELF Learning. Retrieved from:

https://www.youtube.com/watch?v=QkHQ0CYwjaI

Worksheet “Your body”. Retrieved from:

https://www.education.com/worksheet/article/parts-human-body/

Lesson Plan Examples - Cyprus

Contributors: Marianna Gregoriou, Angelos Nicolaou and George Milis (EUROCY Innovations Ltd, Cyprus)

Lesson 1 (Mathematics for Pre-school)

Subject Matter: Mathematics (pre-school)

Topic of the lesson: The numbers 1-10

The age group: up to 6 years old

Estimated time of the activity (approx.): up to 60 minutes

Special needs group

An inclusive pedagogy approach is used in the lesson (classroom design for all, multisensory approach). The lesson can be adjusted for children with special needs (mild cognitive disabilities, visual disability, hearing disability, speech disability).

Learning Objectives:

- Repeat the use of numeric words (1-10)
- Learn new vocabulary (the numbers 1 -10, adding total, directions, vocabulary around the activity (new words that are in the robot mats))
- Continue with general skills development:
- Practice listening skills.
- Practicing talking skills.
- Practicing writing skills.

Expected learning outcomes:

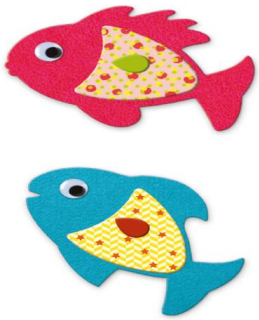
- Will be able to identify the numbers from 1-10.
- Will use some/all new vocabulary (The numbers: one to ten, direction, addition), by repeating it with the help and independently.
- Will use some known vocabulary (The shapes: circle, oval, rhombus, parallelogram, triangle, square, etc. The colours: red, black, blue, white, yellow, orange).

Materials and technologies needed: Computer, Educational robot, Educational Mats (like the numeric line 1-10, the shapes mat), Software for Mathematics (like Incisions (Greek: Ενσφηνώματα), Interactive Whiteboard, money (not real, for games), Boards Game (like the supermarket game), fishing game (fishing the numbers), talking box

Instructional Procedures

Activities	**The use of ICT and AT**
1. Introduction	
a. The teacher asks students if they know what she holds (the bee bot robot) and explains how they would use this tool for their today's lesson. "This bee robot will help us do activities with the numbers from 1–10, to learn directions and to transfer our shopping, but first we need to understand how this tool works" b. The teacher places the robot numeric mat/talking mat with numbers and the bee on the mat and asks all children together to say the numbers that the bee shows in the mat (from 1–10) c. The teacher also has a talking button, on which she has pre-recorded the numbers from 1-10 in a random sequence. She asks a child to press the button and hear a number, the child should show the number on the mat and place a toy for the robot to reach this number (for example, if the robot is on number 1 and they heard from the talking button the number 5, they should move the bee forward by pressing 4 times the forward button).	Here is the bee bot robot, the numeric line, and the talking button    Retrieved from: https://ses.arab
3. Practical part (practicing, problem solving)	
c. Listening activity The teacher tells pupils to listen to the song and sing along: 5 little monkeys jumping on the bed. The song would be repeated, and the teacher can ask the children to show the	

correct number how many monkeys are now on the bed. The teacher asks some children to be the monkeys this time and other children would sing 10 little monkeys jumping on the bed one fell and bumped his head. How many monkeys are now on the bed? And they all would count how many monkeys are left.	
d. Talking activity The teacher uses the interactive board and the educational software for mathematics (called Incisions/Ensfinwmata). Children would do activities to recognize the numbers, putting them in the correct order and counting to 10.	Video Song for “5 little monkeys jumping on the bed” Retrieved from: https://www.youtube.com/watch?v=LrM62pv56o0
e. Additional activity - the Fishing game The children are in a circle, the teacher shows a number and all children will say the number aloud and a child will need to count the number of fish that the teacher shows, the next child would see if they need to add some fish or put some fish back in the pool. For example, the first child has to put 5 fish and the next child needs to have 6 fish, then it means that they just need to add 1, in case he had the number 3, it means they had to put 2 fish back to the pool.	
f. Writing activity Every child gets a “Counting up to 10” worksheet and they have the option to glue/draw/write the number of items on their activity.	Interactive board and Mathematics Software
Reflection / assessment / self-assessment time (what we have learned, evaluate your learning)	
g. The teacher uses the activity for formative assessment.	Using fish with magnet to put them on a metal board and count them more easily

	
Adjustments for children with special needs (using ICT)	
Child with mild mental disorders (activity f): If pupils have difficulties writing, they can have another option to proceed, rather than write the answers they can select the correct answer from an option list.	
Child with visual impairment ((activity a, f,) (can use the help of teacher or assistant): In case we have a child with visual impairments, we can do the following, for the activity: a) The child should have the option to have the tool in the hand, so they can observe it. The tool has a voice output, so every time the robot makes a step, the pupil can hear the bib and understand the steps, also we can use the talking mat where we can record the numbers and when the robot is on the cell it will say the number aloud. b) We can have the option to use large and high contrast print or braille.	Regular computer or tablet (possibility to zoom to enlarge the text)
Children with hearing impairments (throughout the lesson). Assistive technologies are used	Hearing Impairment Personal FM system can be used. Teachers can use wireless microphones throughout the lessons (an audio signal is sent via FM radio waves directly to whatever assistive hearing devices the pupils are wearing).

Children with speech impairment Augmentative and Alternative Communication (AAC) aids would be used in the lesson. If the child owns an AAC system and he/she is familiar with it, we can add the needed material and he/she can participate using this system with the help of the assistant (if they have) or else he/she can use a simple talking device with numbers and give the answers using this device.	 Retrieved from: https://ses.arab

Additional assessment/assessment activities/assessment tools (if relevant)

Assessment (Optional)	The use of ICT
The assessment will be mainly oral in the lesson	Use of AT/AAC tools

Lesson 2 (Phonological Awareness)

Subject Matter: English language

Topic of the lesson: Phonological awareness

The age group: up to 6 years old

Estimated time of the activity (approx.): up to 60 min

Special needs group

An inclusive pedagogy approach is used in the lesson (classroom design for all, multisensory approach). The lesson can be adjusted for children with special needs (mild cognitive disabilities, visual disability, hearing disability, speech disability).

Learning Objectives:

- Hear and manipulate with sounds of phonemes
- Blend phonemes
- Matching rhyming words

- Continue with general skills development:
- Practice listening skills
- Practicing talking skills
- Practicing writing skills

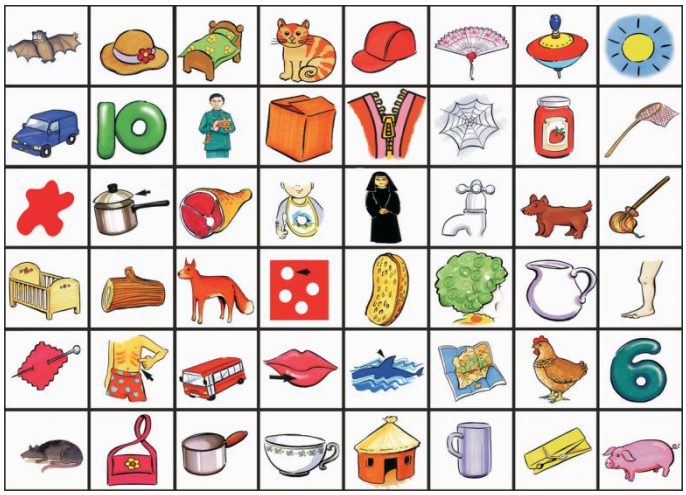
Expected learning outcomes:

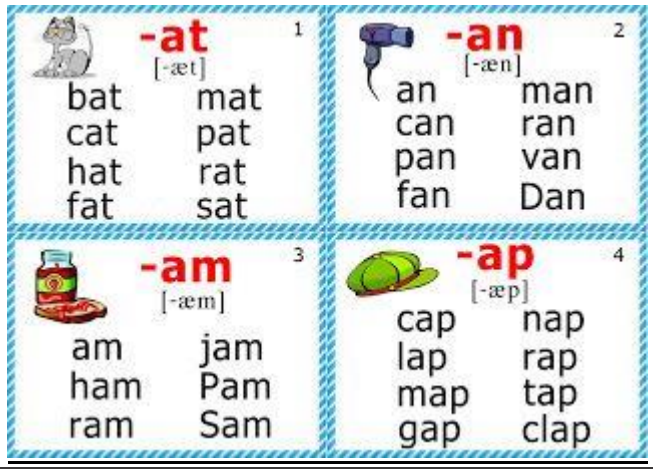
- Will be able to identify and blend by doing CVC words or pseudo words using the new sound phonemes (d, g, o, u, l, f, b)
- Will revise the phonemes they have previously learnt (phonemes: s, a, t, i, p, n, c k, e, h, r, m)

Materials and technologies needed: Computer, Interactive Whiteboard, Learning Phonics software, Learning Phonics tiles, Bee bot robot, Educational Mat (the picture mat), Phonics card game

Instructional Procedures

Activities	**The use of ICT and AT**
1. Introduction	
a. The teacher asks pupils if they would like to sing all together the Phonics Song and sing together the letters and sounds. At the beginning, pupils will sing and when they finish with the first group of letters, they will try to recall the letter they see and the sounds and also to say words that begin with this letter. The teacher will follow the same logic with the rest of the song.	
2. Interaction (Understanding how the bee bot works by try and error method, understanding how the bee will go forward, backwards left and right)	

b. The teacher places the robot on the picture mat and asks the children to use the robot to transfer the talking tile in a picture that starts with that sound, for example, if the children hear the sound “c”, they have to transfer the tile using the robot and place it on the cat.	  Retrieved from https://ses.arab
3. Practical part	
c. The teacher divides the children into groups of 3 and gives them a group of talking tiles and picture cards. The children try to put the cards into the corresponding tile. Each group would work on a different set of tiles. When they all cards into the corresponding tile. Each group would work on a different set of tiles. When they all finish, they will share what they have done.	 Retrieved from: https://www.findtheneedle.co.uk/companies/talking-products-ltd/products/sonic-phonics

d. Talking activity Using the interactive board with the sonic phonic software, pupils work on how to pronounce sounds correctly and blend the phonics and create and say CVC words, for example, cat, dog, etc.	 Retrieved from https://ses.arab
e. Writing activity. Every child gets a worksheet for Matching words with pictures and writing the missing letter from the word.	Worksheet example from: https://www.turtlediary.com/worksheet/match-letter-to-make-a-word-and-fill-in-the-blank.html 
Extra activity In case there is time, using the phonics flash card game, pupils can play in groups to work in specific group of CVC words like hat, bat, sat, etc.	
4. Reflection / assessment / self-assessment time (what we have learned, evaluate your learning)	
f. The teacher uses the worksheet activity for formative assessment.	
Adjustments for children with special needs (The use of ICT)	
Child with mild mental disorders (activity f): If children have difficulties with writing, they can have another option to proceed, rather than writing the answers, they can glue the correct answer or	

draw/circle the correct answer from an option list.	
Child with visual impairment ((activity b, f) (can use the help of teacher or assistant): In case we have a child with visual impairments, we can do the following, for the activity: b) The child should have the option to have the tool in the hand so he/she can observe it. The tool has a voice output, so every time the robot makes a step, the pupil can hear the bib and understand the steps, also we can use the talking mat, where we can record what is on each cell and when the robot is on a cell the child will say the word depicted on the picture aloud. f) We can have the option to use large and high contrast print or Braille.	
Children with hearing impairments (throughout the lesson) Assistive technologies are used	
Children with speech impairment Augmentative and Alternative Communication (AAC) aids would be used in the lesson. If the child owns an AAC system and he/she is familiar with it, we can add the needed material and he/she can participate using this system with the help of the assistant (if they have) or else he/she can have pre-recorded materials and use a talking pen to participate in the class. The teacher should have pre-recorded the phonemes sound and letters and also should pre-record on the list of pictures what is on the picture, so the child can use those materials and participate in the class when there is a question about a phoneme or to give an answer to the	Regular computer or tablet (possibility to zoom to enlarge the text)

item that starts with a specific sound.	

Additional assessment/assessment activities/assessment tools (if relevant)

Assessment (Optional)	**The use of ICT**
The assessment will be mainly orally through the lesson	Use of AT/AAC tools

References/Materials

Phonics Song retrieved from https://www.youtube.com/watch?v=saF3-f0XWAY&feature=youtu.be

Worksheet https://www.turtlediary.com/worksheet/match-letter-to-make-a-word-and-fill-in-the-blank.html

Lesson 3 (Personal Hygiene)

Subject Matter: Personal Hygiene

Topic of the lesson: Hand washing

The age group*:* Pre-school

Estimated time of the activity (approx.): up to 30 min

Special needs group _____

Comments on the Lesson

An inclusive pedagogy approach is used in the lesson (classroom design for all, multisensory approach). The lesson can be adjusted for children with special needs (mild cognitive disabilities, visual disability, hearing disability, speech disability).

Learning Objectives:

- The importance of washing our hands
- The sequence of proper washing
- The tools we need to wash our hands
- The times we need to wash our hands
- Continue with general skills development:
- Practice listening skills.
- Practicing talking skills.
- Practicing writing skills.

Expected learning outcomes:

- Will be able to explain:
    - Why washing our hands is important?
    - What might happen if we do not wash our hands, for example, before eating?
- Will be able to demonstrate the tools that we need to wash our hands
- How frequently should we wash our hands/on which occasions? We are waiting to hear answers like when we went to the toilet, before eating, after playing time, after playing with animals, etc.
- Will demonstrate the correct sequence of washing our hands
- Will learn new vocabulary regarding hygiene

Materials and technologies needed: Computer, Interactive Whiteboard, soap, clean towel, warm water, cards for sequencing (theme washing hands)

Instructional Procedures

Activities	**The use of ICT and AT**
<u>1. Introduction</u> a) The teacher asks pupils to list some of the reasons why washing our hands is important. b) The teacher explains to the children in simple words what the germs are and what they might cause. c) They discuss the correct way of washing hands. d) Children tell on which occasions they wash their hands and what tools they need. e) The teacher demonstrates the sequence we need to follow to wash our hands to children.	

2. Interaction f) The teacher uses the song “Wash your hands”, the children at first listen to the song and then they sing aloud. The teacher asks the children if anyone has a pet. They explain why it is important to wash our hands after we play with our pet. 3. Practical part g) The teacher takes the children to the sinks and divides them into groups, each child takes his/her turn and washes their hands, and the other pupils sing the song “wash your hands”. h. Talking activity Using the interactive board and the hygiene software, children do activities that are related to hygiene http://www.inclusive.co.uk/switchit-hygiene-extra-p2351# i. Writing activity. Every child gets a worksheet for “How to wash my hands”, they can put the pictures in the correct sequence and they can draw the picture. 4. Reflection/assessment/self-assessment time (what we have learned, evaluate your learning) The teacher uses the worksheet activity for formative assessment.	
Enrichment activities and adjustments for children with special needs	The use of ICT
Adjustments: *Child with mild mental disorders (activity f)*: We use visuals for all children illustrating the process of washing the hands. *Child with visual impairments (activity e and g) (can use the help of teacher or assistant):* For activity f, we can have the option to use large and high contrast print or braille. *Children with hearing impairment (throughout the lesson).*	Hearing Impairment

Assistive technologies are used Children with no verbal communication Augmentative and Alternative Communication (AAC) aids would be used in the lesson. If the child has his/her own AAC system and is familiar with it, we can add the needed material and he/she can participate using this system with the help of the assistant (if they have) or else he/she can have pre-recorded materials and use a talking pen to participate in the class. The teacher should have also pre-recorded the learning materials that the child would need to participate, such as the tools that we need to wash our hands, the process, etc.	Personal FM system can be used. Teachers can use wireless microphones throughout the lessons (an audio signal is sent via FM radio waves directly to whatever assistive hearing devices the pupils are wearing).

Additional assessment/assessment activities/ assessment tools (if relevant)

Assessment (Optional)	**The use of ICT**
The assessment will be mainly by observing the pupil when washing their hands (all pupils by the end of the lesson should be able to wash their hands correctly)	Use of AT/AAC tools to demonstrate the correct sequence of how we wash our hands and support pupils who need extra support.

References/Materials

Wash your hand song (no1) Retrieved from: https://www.youtube.com/watch?v=emy_SBGqLLA

Wash your hand song (no2) Retrieved from: https://www.youtube.com/watch?v=dDHJW4r3elE

Worksheet example retrieved from: https://www.mypersonalhygiene.com/how-to-wash-my-hands-worksheet-for-kids/

Serious Games

Contributors: Svetlana Surikova (University of Latvia, Latvia) and Karel Van Isacker (PhoenixKM BVBA, Belgium)

According to Romero et al. (2015)[182], serious games are tools that are widely recognized as having considerable potential to support active learning and to contribute to the development of the 21st century skills in education. Those games are especially important in the context of inclusive education for the 21st century. Furthermore, serious game applications relate not only to education, but also to well-being, advertising, cultural heritage, interpersonal communication, and health care. For instance, Laamarti et al. (2014)[183] classified serious games for health care into four categories: (1) health monitoring, (2) detection and treatment, (3) therapeutic education and prevention, and finally (4) rehabilitation (p. 8). Also pupils with special needs can benefit from using serious games for educational and therapeutic purposes (Durango et al., 2015[184]; García-Redondo et al., 2019[185]; Kokol et al., 2020[186]; Tomé et al.,

[182] Romero, M., Usart, M., & Ott, M. (2015). Can serious games contribute to developing and sustaining 21st-century skills? *Games and Culture*, *10*(2), 148–177. https://doi.org/10.1177/1555412014548919

[183] Laamarti, F., Eid, M., & El Saddik, A. (2014). An overview of serious games. *International Journal of Computer Games Technology, 2014*, 1–15. https://doi.org/10.1155/2014/358152

[184] Durango, I., Carrascosa, A., Gallud, J. A., & Penichet, V. M. R. (2015). Using serious games to improve therapeutic goals in children with special needs. In S. Boring, E. Rukzio, H. Gellersen, & K. Hinckley (Eds.), *MobileHCI'15: Proceedings of the 17th international conference on human-computer interaction with mobile devices and services adjunct* (pp. 743–749). Association for Computing Machinery. https://doi.org/10.1145/2786567.2793696

[185] García-Redondo, P., García, T., Areces, D., Núñez, J. C., & Rodríguez, C. (2019). Serious games and their effect improving attention in students with learning disabilities. *International Journal of Environmental Research and Public Health*, *16*(14), 1–12. https://doi.org/10.3390/ijerph16142480

[186] Kokol, P., Blažun Vošner, H., Završnik, J., Vermeulen, J., Shohieb, S., & Peinemann, F. (2010). Serious game-based intervention for children with developmental disabilities. *Current Pediatric Reviews*, *16*(1), 26–32. https://doi.org/10.2174/1573396315666190808115238

2014[187]). For instance, Durango et al. (2015)[188] and García-Redondo et al. (2019)[189] found the advantages of using serious games (digital, video) to improve significantly the attention of children with special needs, in particular with learning disabilities. Tomé et al. (2014)[190] emphasised that 'serious games constitute a great alternative to current therapy/training methods for people with cognitive disabilities' (p. 45). Kokol et al. (2020)[191] identified promising results regarding anxiety reduction, stress regulation, emotion recognition, and rehabilitation. However, there is 'a lack of clinical evidence that children with neurodevelopmental disorders can benefit from the application of serious games' (ibid., p. 26).

Some examples of serious games

Title	Short description	URL
Gaming: Skills Bundle	Theme bundle related to gaming built according to OVUR. The following components are discussed: ○ class game profile; ○ types of games; ○ benefits of gaming; ○ gaming in numbers; ○ assignment serious games; ○ game addiction.	https://www.klassement.net/downloadable-resources/98365/gaming-skills-bundle/?previous

[187] Tomé, R. M., Pereira, J. M., & Oliveira, M. (2014). Using serious games for cognitive disabilities. In M. Ma, M. F. Oliveira, & J. Baalsrud Hauge (Eds), *Serious games development and applications* (Vol. 8778, pp. 34–47). Springer. https://www.inesc-id.pt/ficheiros/publicacoes/11963.pdf

[188] Durango, I., Carrascosa, A., Gallud, J. A., & Penichet, V. M. R. (2015). Using serious games to improve therapeutic goals in children with special needs. In S. Boring, E. Rukzio, H. Gellersen, & K. Hinckley (Eds.), *MobileHCI'15: Proceedings of the 17th international conference on human-computer interaction with mobile devices and services adjunct* (pp. 743–749). Association for Computing Machinery. https://doi.org/10.1145/2786567.2793696

[189] García-Redondo, P., García, T., Areces, D., Núñez, J. C., & Rodríguez, C. (2019). Serious games and their effect improving attention in students with learning disabilities. *International Journal of Environmental Research and Public Health*, *16*(14), 1–12. https://doi.org/10.3390/ijerph16142480

[190] Tomé, R. M., Pereira, J. M., & Oliveira, M. (2014). Using serious games for cognitive disabilities. In M. Ma, M. F. Oliveira, & J. Baalsrud Hauge (Eds), *Serious games development and applications* (Vol. 8778, pp. 34–47). Springer. https://www.inesc-id.pt/ficheiros/publicacoes/11963.pdf

[191] Kokol, P., Blažun Vošner, H., Završnik, J., Vermeulen, J., Shohieb, S., & Peinemann, F. (2010). Serious game-based intervention for children with developmental disabilities. *Current Pediatric Reviews*, *16*(1), 26–32. https://doi.org/10.2174/1573396315666190808115238

SmartGames Live: Temporary free access	Smart games want to keep children educationally responsible now that the schools are closed during the corona crisis. That is why they now grant temporary free access to 18 online games.	https://www.klascement.net/
ResourCity: Educational game for sciences	The game is based on the very popular Pokémon Go. On the app you see where chemical elements are hidden in your neighbourhood in augmented reality. Once you have captured an element, you will get an original knew-you-date about this chemical element and you will find out where it is present in the vicinity. In this way the pupil gains a playful insight into which materials occur in an urban context, what the chemical composition of these materials is, and sometimes also which special (historical) story is linked to it.	https://www.klascement.net/app-
SQUEEZE: A serious game about online identity	SQUEEZE is a method of JES vzw about the online identity with a fixed duration of 100 minutes. In concrete terms, teenagers individually test the prototype of the new Squeeze online platform on tablets or laptops, and then reflect on their behaviour online and the use of social media based on their feedback and specific situations in groups or classes.	https://www.klascement.net/downloadable-

Robotic games

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A lot of recent studies concentrated on the use of robots in inclusive education, including education for pupils with special needs (Catlin & Blamires, 2019[192]; Daniela & Lytras, 2019[193]; Galvez Trigo et al., 2019[194]). According to Daniela and Lytras (2019)[195], 'Educational robotics (ER) can serve as a tool for knowledge construction and as an assistive tool for students who have problems in specific fields, or ER may be used to change students' attitudes to learning - class culture - allowing everyone to be accepted and involved' (p. 222), however ER 'shouldn't be taken as providing a panacea for all the problems that exist in education' (ibid., p. 223). Galvez Trigo et al. (2019)[196] identified five main reasons for low uptake of robots in education for pupils with special needs: (1) the inability to acquire the system due to its price or availability; (2) its difficulty of use; (3) the low range of activities offered; (4) the limited ways of interaction offered; and (5) the inability to use different robots with the same software (p. 59).

Some examples of robotic games

Title	Short description	URL
ROOT rt1 iRobot Coding Robot	Programmable STEM/STEAM Toy That Grows with You, Creative Play Through Art, Music, and Code, Voice-Activated, Bluetooth Connection, App-Enabled	https://www.amazon.com/Root-
Leka	Leka is a robotic interactive ball designed to help children with special needs to learn and develop through play. Designed to change the way	https://www.youtube.com/watch?v=tqjrPxYrhDU

[192] Catlin, D., & Blamires, M. (2019). Designing robots for special needs education. *Technology, Knowledge, and Learning*, *24*, 291–313. https://doi.org/10.1007/s10758-018-9378-8

[193] Daniela, L., & Lytras, M. D. (2019). Educational Robotics for Inclusive Education. *Technology, Knowledge and Learning*, *24*, 219–225. https://doi.org/10.1007/s10758-018-9397-5

[194] Galvez Trigo, M. J., Standen, P. J., & Cobb, S. V. G. (2019). Robots in special education: reasons for low uptake. *Journal of Enabling Technologies, 13*(2), 59–69. https://doi.org/10.1108/JET-12-2018-0070

[195] Daniela, L., & Lytras, M. D. (2019). Educational Robotics for Inclusive Education. *Technology, Knowledge and Learning*, *24*, 219–225. https://doi.org/10.1007/s10758-018-9397-5

[196] Galvez Trigo, M. J., Standen, P. J., & Cobb, S. V. G. (2019). Robots in special education: reasons for low uptake. *Journal of Enabling Technologies*, *13*(2), 59–69. https://doi.org/10.1108/JET-12-2018-0070

Title	Short description	URL
	children with developmental disorders play and interact, the smart toy helps engage the kids in multisensory games while simultaneously tracking their progress.	
Milo	Milo the robot is designed to be interesting and approachable for learners with ASD. He can walk, talk and even model human facial expressions. Milo never gets frustrated or tired. He consistently delivers lessons in a way that learners with ASD respond to. This recurring positive experience creates an environment in which learners can learn and thrive.	https://www.youtube.com/watch?v=RsDdC88viDI https://robots4autism.com/milo/
Jibo	Jibo is a social robot designed as a companion, not an assistant.	https://www.youtube.com/watch?v=MNzb4FC6lhg
NAO Next Gen	NAO is a humanoid robot designed to help to improve special education teaching by stimulating social interaction through play and allowing users greater autonomy. The robot helps to un-lock self-confidence by responding to voice commands and tracks each child's performance helping them reach important learning goals in a way that is both fun and effective.	https://www.youtube.com/watch?v=Zu0Gou6ytAE https://alphaschool.com/a-humanoid-robot-that-works-for-special-education-in-new-jersey/ https://www.youtube.com/watch?v=nNbj2G3GmAo
QTrobot	QTrobot is an expressive social robot designed to increase the efficiency of education by encouraging an active and engaged interaction and making it simple to attract children's attention to teach new life skills. QTrobot helps children with autism and special needs by engaging them in educational activities. By using games and stories,	http://luxai.com/qtrobot-for-autism/ https://www.youtube.com/watch?time_continue=9&v=9wNV2k1jfgQ&feature=emb_logo

Title	Short description	URL
	QTrobot teaches new skills in a fun and enjoyable manner.	
EduRob pedagogical framework	The role of the educational and pedagogical framework is to highlight pedagogical principles of learning with robots and to provide teachers with guidance on how to employ robots to enhance their teaching taking into account associated teaching challenges as well as what they already teach and the flexible needs of both the classroom and diverse learner cohort.	http://www.edurob.eu/assets/EdurobPedagogicFramework.pdf
Learning with Robotics Curriculum and Learning Scenarios	This document outlines the learning robotics curriculum by describing a methodology of adapting robot based learning scenarios to the learning needs of a pupil based on the curriculum within which teaching is to take place. Interviews with key stakeholders identify key learning areas (understanding cause and effect, imitation, communication, problem solving and social learning) that can be used to classify the learning needs of a pupil.	http://edurob.eu/resources/LearningWithRoboticsCurriculumAndLearningScenariosV1.pdf

Online and mobile learning and interaction towards constructivist knowledge construction, teaching and learning approaches

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Nowadays there are lots of educational resources which could be accessed from the internet, PCs and mobile devices. Online learning or e-learning can promote the inclusion of learners with various disabilities in education, but they need extra support to access and process the

curricular or extracurricular resources, activities, collaboration and interaction tools to maximize their learning (Bjekić et al., 2014[197]; Guglielman, 2011[198]; Tindle et al., 2017[199]). Mobile learning or m-learning is defined as the use of mobile devices (mainly smartphones and tablets) as a mediator in the process of learning and teaching in different settings (Alexander, 2004[200]; Al Hamdani, 2013[201]; Romero-Rodríguez et al., 2020[202]). Mobile devices can be used both with traditional behavioural learning theories and practices and new constructivist learning theories and practices (Al Hamdani, 2013)[203]. Currently multiple mobile applications are available for the purposes of inclusive education for the 21st century to enhance and transform learning in order to meet the needs of diverse learners. According to Prupas (2014)[204], in inclusive classrooms, teachers use a learner-centred approach in line with the Universal Design for learning framework, they also use apps in two ways such as support and content creation in which their pupils can manipulate or create new content or

[197] Bjekić, D., Obradović, S., Vučetić, M., & Bojović, M. (2014). E-teacher in inclusive e-education for students with specific learning disabilities. *Procedia - Social and Behavioral Sciences*, *128*, 128–133. https://doi.org/10.1016/j.sbspro.2014.03.131

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[199] Tindle, K., East, B., & Mellard, D. (2017). *Online learning for students with disabilities: considerations for SEA policies and procedures*. Center on Online Learning and Students with Disabilities. https://nasdse.org/docs/SEA_Resource_Document_February2017.pdf

[200] Alexander, B. (2004). Going nomadic: mobile learning in higher education. *Educause Review*, *39*(5), 28–35.

[201] Al Hamdani, D. S. (2013). Mobile learning: A good practice. *Procedia - Social and Behavioral Sciences*, *103*, 665–674. https://doi.org/10.1016/j.sbspro.2013.10.386

[202] Romero-Rodríguez, J., Aznar-Díaz, I., Hinojo-Lucena, F., & Cáceres-Reche, M.-P. (2020). Models of good teaching practices for mobile learning in higher education. *Palgrave Communications*, *6*, 1–7. https://doi.org/10.1057/s41599-020-0468-6

[203] Al Hamdani, D. S. (2013). Mobile learning: A good practice. *Procedia - Social and Behavioral Sciences*, *103*, 665–674. https://doi.org/10.1016/j.sbspro.2013.10.386

[204] Prupas, A. (2014). *Apps for 21st century learning in the inclusive classroom - inclusive classroom podcast.* https://www.inov8-ed.com/2014/01/apps-for-21st-century-learning-in-the-inclusive-classroom-inclusive-classroom-podcast/

products of learning. Furthermore, the ability to create content is what will transform learning, especially for pupils with special needs.

Some examples of resources to provide online and mobile learning

Title	**Short description**	**URL**
KlasCement	The Educational Resources Network KlasCement is managed by the Division Communication of the Department of Education and Training.	https://www.klascement.net/info/
Brain Parade	Brain Parade was founded with the goal of creating effective, intelligent applications that help people with special needs. It is Brain Parade's mission to build products that will have a profound, positive impact on the lives of these individuals, their teachers, their families and their caregivers.	http://www.brainparade.com/
iReadWrite	iReadWrite is an app for reading and writing support that features clear text to speech, highlighting, phonetic spell checker, word prediction and dictionary. There are also many import and export options. It is a good option for those who are using mobile devices.	https://www.texthelp.com/en-us/products/read-write/
Skitch	Skitch is an app that allows a learner to take a photo and then annotate on top of the photo. Mark up the photo with text, shapes, emoticons, anything! It can be used for homework assignments, memory aids, notetaking, learning activities, etc.	https://apps.apple.com/us/app/skitch-snap-mark-up-share/id425955336?mt=12
Inspiration Maps	This mind mapping app comes with templates that allow the learner to choose from existing maps. Or, create one from scratch. What differentiates this app from the rest of the mind mapping apps is that it offers increased support for the writing process, if needed-the visual mind map can switch to a writing outline with the tap of a button.	https://www.inspiration-at.com/inspiration-maps/

Title	Short description	URL
ShowMe Interactive Whiteboard	ShowMe allows to record voice-over whiteboard tutorials and share them online. It's an amazingly simple app that anyone can use, no matter how young or old!	https://apps.apple.com/us/app/showme-interactive-whiteboard/id445066279?ign-mpt=uo%3D4
Bitsboard Flashcards & Games	Top 5 Education Game in the US App Store. Study almost anything for free across 35 addictive mini-games in one app. Trusted and loved by over 5 million learners and teachers worldwide.	https://apps.apple.com/us/app/bitsboard-flashcards-games/id516842210?ign-mpt=uo%3D4
10 categories of recommended apps and software for students with learning disabilities	Andrea Prupas compiled an updated multi-platform list of "go-to" apps recommended for pupils with learning disabilities. Some of those literacy support tools are stand-alone products that provide just one function (e.g., just text-to-speech), while others are literacy "suites" that provide many options in one tool (e.g., text-to-speech, word prediction, annotation, speech recognition). Some new exciting options are in the area of digital books, OCR scanning, annotation and supported writing.	https://www.inov8-ed.com/2016/04/10-categories-of-recommended-apps-and-software-for-students-with-learning-disabilities/
68 Apps for Students with Learning Disabilities	There is an updated list of recommended apps for pupils with learning disabilities. Recommendations are related to the following categories: ○ Reading and writing support and remediation; ○ Language remediation; ○ Productivity; ○ Alternative literacy formats; ○ Numeracy; ○ Fine motor skills; ○ Executive functioning.	https://www.inov8-ed.com/2013/05/68-apps-for-students-with-learning-disabilities/

Title	Short description	URL
Best Special Education Apps and Websites	While some of these tools weren't designed specifically for kids with special needs or learning differences, they've been recommended by educators and experts who work with these populations. You'll find apps that address foundational skills, boost social and emotional skills, and help kids with autism follow a schedule. There are also sites that help teachers differentiate learning and access resources for developing language and math literacy.	https://www.commonsense.org/education/top-picks/best-special-education-apps-and-websites
7 Fantastic Websites for Teaching Curriculum to Students with Disabilities	Are you looking for ways to teach curriculum to your child? Do you want to reinforce skills that your child is learning at school? Check out these 7 websites that will keep kids engaged while acquiring valuable skills and knowledge. These sites offer video instruction, printable worksheets, online games, etc. Useful for teaching old and new skills, the websites are easy to access and user friendly. While most have free resources, some require a membership for premium content. It's also good to note that many of the websites listed are used daily by teachers themselves.	https://www.friendshipcircle.org/blog/2018/01/09/7-fantastic-websites-teaching-curriculum-students-disabilities/
Best Practices for Educating Online	It is important to understand that live, online learning is not a plug and play solution. It takes planning and preparation. You should use the systems that you're familiar with to get up and running for temporary or extended closures. This guide will walk you through best practices, teaching strategies, and tips and tricks for delivering high quality instruction and therapy online with a quick turnaround.	https://cec.sped.org/~/media/Files/Resources/Best%20Practices%20for%20Educating%20Online.pdf
Create an online course!	Are school closures forcing you to create an online course? Here are 11 tips to get you started!	https://cec.sped.org/~/media/Files/Resources/ISD%20101.jpg

Title	Short description	URL
Virtual School Activities	Welcome to Virtual School Activities for all ages! A collection of sites to live webcams, virtual tours/trips, and other miscellaneous fun educational sites. This site is updated every few days.	https://virtualschoolactivities.com/
Boom Learning	Boom Cards are self-grading exercises that are gamified for learners and provide the data teachers want.	https://wow.boomlearning.com/
Online Learning for Special Needs Children	Effective, affordable online learning for special needs. Enables each child to choose; to watch, to listen to, or to read each video on any topic which stimulates their interest in learning. Allows each child to learn at their own speed and achieve their greatest potential. Enables children to study each topic effectively PLUS improve their reading and literacy skills at the same time.	http://www.zaneeducation.com/#special-needs
Online School for Special Needs Students	eAchieve Academy offers a comprehensive educational curriculum for special needs pupils throughout the southeast Wisconsin area, ranging from subjects like biology, history, English, and math. Special education teachers design individualized lesson plans for each and every pupil enrolled in the department, and take the time to identify their pupils' interests and needs to help their future educational pursuits.	https://www.eachieve.com/HowOnlineHighSchoolWorks/SpecialEdProgram
Online Learning Strategies for Students with Disabilities	Over the last few years, postsecondary institutions continue to move many of their courses online. In this publication, some participants in projects supported by the DO-IT centre at the University of Washington share their experiences and recommendations for other learners with disabilities who are taking online courses.	https://www.washington.edu/accesscomputing/online-learning-strategies-students-disabilities

Title	Short description	URL
Online Learning that Meets the Needs of All Students	Edgenuity's online courses and learning solutions are built using research-based methods that are designed to support the unique needs of all students, including those who have special educational needs. User-friendly customization tools make it easy to make accommodations and modifications as needed for students, and Edgenuity's Special Education Coordinators partner with educators to give students all the support they need to succeed.	https://www.edgenuity.com/special-populations/

Dedicated assistive technologies for education

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The Understood Team (n.d.)[205] defined an assistive technology as any high-tech and low-tech tool, device, software, or equipment that helps people work around their challenges so they can learn, communicate, and function better. Assistive technologies are especially important for children who struggle with learning, helping to thrive in school and in life, promoting their confidence and independence. Any assistive technology and its use should be assessed from the perspective of pupil's needs, ability and requests and this method demands expertise in the area of assistive technology; a team work between the pupil, parents and school personnel can result in positive effects of assistive technology use for pupils (Josjö, 2012[206]; WATI,

[205] The Understood Team. (n.d.). *Assistive technology for learning: What you need to know.* https://www.understood.org/en/school-learning/assistive-technology/assistive-technologies-basics/assistive-technology-what-it-is-and-how-it-works?_ul=1*1kt760h*domain_userid*YW1wLVB0Y2lhVy1RQVFweG5qdDdMSGw1Y1E

[206] Josjö, H. (2012). *ICT and inclusion: Teachers' perceptions on the use of information and communication technology for students with special educational needs in general educational settings*. Umeå universitet. https://www.diva-portal.org/smash/get/diva2:633789/FULLTEXT01.pdf

2009[207], 2017[208]). Special education teachers as experts on using assistive technology with pupils should focus on investigating the pupil's individual needs as well as on consulting and supervising the teachers on how teaching could be adapted in a successful way for the pupil in the class (Josjö, 2012, p. 38[209]).

Some examples of dedicated assistive technologies for education

Title	Short description	URL
Voice output communication aids (VOCAs)	Voice output communication aids (VOCAs), also called speech-generating devices (SGDs), are high-tech, augmentative, and alternative communication devices that produce speech for an individual who has limited or no means to communicate orally.	https://idrc.ocadu.ca/research-
Augmentative and Alternative Communication (AAC)	AAC is a way for individuals to communicate when they do not have the physical ability to use verbal speech or writing.	https://www.youtube.com/watch
Assistive Technology for Reading	Technology can help kids and adults work around their reading challenges. Text-to-speech and audiobooks are two examples of reading technology. These assistive technology tools can be used on computers, smartphones, and other devices.	https://www.understood.org/en/school-learning/assistive-technology/assistive-technologies-basics/assistive-technology-for-reading?_ul=1*89avxb*domain_userid*YW1wLVB0Y2lhVy1RQVFweG5qdDdMSGw1Y1E

[207] WATI, Wisconsin Assistive Technology Initiative. (2009). *Assessing students' needs for assistive technology.* http://www.wati.org/free-publications/assessing-students-needs-for-assistive-technology/

[208] WATI, Wisconsin Assistive Technology Initiative. (2017). *Assistive technology consideration to assessment.* http://www.wati.org/free-publications/assistive-technology-consideration-to-assessment/

[209] Josjö, H. (2012). *ICT and inclusion: Teachers' perceptions on the use of information and communication technology for students with special educational needs in general educational settings*. Umeå universitet. https://www.diva-portal.org/smash/get/diva2:633789/FULLTEXT01.pdf

Assistive Technology for Writing	Assistive technology can be a great support for kids and adults who struggle with writing. Handwriting tools help with the physical act of writing. There's also technology that can help with organizing and expressing thoughts in writing.	https://www.understood.org/en/school-learning/assistive-technology/assistive-technologies-basics/assistive-technology-for-writing?_ul=1*1l97e9x*domain_userid*YW1wLVB0Y2lhVy1RQVFweG5qdDdMSGw1Y1E
Assistive Technology for Math	Assistive technology (AT) can be a big help for people who struggle with math. Some AT math tools are very common - like calculators. Others, like digital graphing tools, are lesser known, but can be just as helpful.	https://www.understood.org/en/school-learning/assistive-technology/assistive-technologies-basics/assistive-technology-for-math?_ul=1*16ggayo*domain_userid*YW1wLVB0Y2lhVy1RQVFweG5qdDdMSGw1Y1E
Assistive Technology for Auditory Processing Disorder	Assistive technology (AT) can help kids with auditory processing disorder better understand what they hear. AT tools include listening devices, captions and text-to-speech apps. AT tools can minimize background noise and amplify speech to make it clearer.	https://www.understood.org/en/school-learning/assistive-technology/assistive-technologies-basics/assistive-technology-for-auditory-processing-disorder?_ul=1*1qyj2y1*domain_userid*YW1wLVB0Y2lhVy1RQVFweG5qdDdMSGw1Y1E
Software for Kids Who Learn and Think Differently	There are many software programmes that can help kids with learning and thinking differences. But how can you know which is right for your child? Start with these charts, which compare features and prices of software for reading, writing and math.	https://www.understood.org/en/school-learning/assistive-technology/finding-an-assistive-technology/software-for-kids-who-learn-and-think-differently?_ul=1*1wn7w7l*domain_userid*YW1wLVB0Y2lhVy1RQVFweG5qdDdMSGw1Y1E

Assessing Students' Needs for Assistive Technology	This material provides an overview of the assistive technology consideration, assessment and planning process.	http://www.wati.org/free-publications/assessing-students-needs-for-assistive-technology/
Assistive Technology Consideration to Assessment	Assistive technology (AT) assessment package provides information about the process from AT consideration to AT assessment.	http://www.wati.org/free-publications/assistive-technology-consideration-to-assessment/

Pedagogical, technological and organisational innovation

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A lot of companies, networks, centres, and non-profit organizations worldwide are specializing in creating and implementing multiple pedagogical, technological and organisational innovative solutions that help different vulnerable persons and groups, in particular children and adults with special needs. Innovative technologies and practices play a pivotal role in special education (Boyle, 2013[210]; Cagiltay et al., 2014[211]) and inclusive education for the 21st

[210] Boyle, J. R. (2013). Specialized innovations for students with disabilities. In M. Murphy, S. Redding, & J. Twyman (Eds.), *Handbook on innovations in learning* (pp. 93–112). Center on Innovations in Learning, Temple University, Information Age Publishing. http://www.centeril.org/handbook/resources/fullchapter/Specialized_Innovations_for_Students_with_Disabilities_SA.pdf

[211] Cagiltay, K., Cicek, F., Karasu, N., Cakir, H., & Kaplan Akilli, G. (2014). Innovative educational technology for special education and usability issues. In A. Marcus (Ed.), *Design, user experience, and usability: User experience design for everyday life applications and services* (pp. 155–163). Springer. https://doi.org/10.1007/978-3-319-07635-5_16

century (Ghilain, 2015[212]; Hamburg & Bucksch, 2017[213]; IncluD-ed, 2012[214]; Körner et al., 2018[215]; Walker & Logan, 2009[216]; Watkins, 2011[217]). As Boyle (2013)[218] highlighted, 'An ideal special education innovation would allow a student with a disability to compete on the same level as peers without disabilities. In other words, innovations should not only increase achievement or improve behaviour for students with disabilities, but effect a positive change large enough so that students with disabilities who use the innovation can achieve at the same level as peers (without disabilities) who are using established best practices' (p. 94).

Some resources on pedagogical, technological and organisational innovations

Title	Short description	URL
Advanced Solution for Special Needs	Advanced Solution for Special Needs is a US-based company specializing in creating customized innovative solutions that helps children and adults with special needs to reach their full potential. Company team is	https://www.advancedssn.com/

[212] Ghilain, T. (2015). *Towards more inclusive learning environments in Europe: Salzburg Declaration.* European Association of Service providers for Persons with Disabilities. https://www.easpd.eu/sites/default/files/sites/default/files/Policy/Education/towards_more_inclusive_learning_environments_in_europe_easpd.pdf

[213] Hamburg, I., & Bucksch, S. (2017). Inclusive education and digital social innovation. *Advances in Social Sciences Research Journal*, *4*(5), 161–169. https://doi.org/10.14738/assrj.45.2861

[214] IncluD-ed, European Network on Inclusive Education & Disability. (2012). *Inclusive education & disability: Good practices from around Europe.* P.A.U. Education. http://www.includ-ed.eu/sites/default/files/documents/inclusive_education__disability._good_practices_from_around_europe.pdf

[215] Körner, I., Uhlmann, S., Schmid, B., Freyhoff, G., & Rígrová, D. (2018). *Towards inclusive education: Examples of good practices of inclusive education*. Inclusion Europe with support of the European Commission. https://inclusion-europe.eu/wp-content/uploads/2018/02/Best-Practice-Education_EN-FINALWEB.pdf

[216] Walker, L., & Logan, A. (2009). *Using digital technologies to promote inclusive practices in education: A Futurelab handbook.* Futurelab. https://www.nfer.ac.uk/publications/FUTL05/FUTL05.pdf

[217] Watkins, A. (Ed.) (2013). *Information and communication technology for inclusion: Developments and opportunities for European Countries*. European Agency for Development in Special Needs Education. https://www.european-agency.org/sites/default/files/ICT%20for%20Inclusion-EN.pdf

[218] Boyle, J. R. (2013). Specialized innovations for students with disabilities. In M. Murphy, S. Redding, & J. Twyman (Eds.), *Handbook on innovations in learning* (pp. 93–112). Center on Innovations in Learning, Temple University, Information Age Publishing. http://www.centeril.org/handbook/resources/fullchapter/Specialized_Innovations_for_Students_with_Disabilities_SA.pdf

	composed of highly dedicated and capable experts in various fields including clinical neuroscientists, psychologists, behavioural therapists, computer programmers, and biomedical engineers who work together in designing, implementing and perfecting solutions for their clients.	
Find Innovative Solutions	The Government Innovators Network collects and disseminates the best ideas in governance helping to find creative and innovative solutions to public policy challenges.	https://www.innovations.harvard.edu/find-innovative-solutions
Innovative Solutions for Disadvantage and Disability	Innovative Solutions for Disadvantage & Disability is a non-profit organization which provides programmes that reduce the impact of social and economic disadvantage on the health, growth and development of children; assists parents, grandparents and caregivers to understand the needs of their children and helps them to assure optimal health, development and education.	https://www.isdd-home.org/
Centre on Innovations in Learning	The Centre on Innovations in Learning is one of national content centres funded by the United States Department of Education. The Centre on Innovations in Learning's mission is to (a) increase the capacity of state education agencies to stimulate, select, implement, and scale up learning innovations in local education agencies and schools to improve learning outcomes for all learners; and (b) increase the capacity of regional comprehensive centres to provide technical assistance to state education agencies relative to the Centre's scope of responsibility.	http://www.centeril.org/
Specialized Innovations for Students with Disabilities	This report includes information about innovations related to literacy, math and science in special education and some promising technologies for pupils with special needs.	http://www.centeril.org/handbook/resources/fullchapter/Specialized_Innovations_for_Students_with_Disabilities_SA.pdf

Social Innovation Centre	Social Innovation Centre promotes, cooperates, teaches, inspires and disseminates the knowledge and best practices in the field of: ○ Civic participation and the promotion of civil society participation in policy formation (documents and legal acts). Promotion of active citizenship – an individual's participation in society and public life; ○ Representation of social risk groups and other groups: interests and rights, promotion of skills, integration process; ○ Promoting knowledge and understanding of social innovation and social entrepreneurship, and the role of creativity; ○ Promoting the development of creative and culture industries, interdisciplinarity, cultural and heritage conservation and awareness; ○ Promoting regional development and local government capacity building; ○ Strengthening public health and promoting healthy lifestyles.	http://socialinnovation.lv/en/
The Living Lab for Special Needs	A network of co-creation and innovation, a space for exchange bringing together people with disabilities, scientists, companies and all other people interested in collaborating in the field of disability and special needs to co-create new innovative solutions. The Living Lab for Special Needs aims to create an innovation platform for disability in the broad sense. It is a place for exchange between different partners on disability issues and the technological solutions and services that can help them.	https://livinglabhandicap.ch/en/living-lab-handicap/
Innovative Practices	The Innovative Practices of the Zero Project are projects, programmes, products and services, but also social enterprises or business strategies. They employ a comprehensible method that can be transferred or copied to other countries,	https://zeroproject.org/innovative-practices/

	regions, or contexts, and have a proven and measurable impact. Most importantly they speed up the process of implementing the UN Convention on the Rights of Persons with Disabilities.	
Distance Learning Innovations for Special Education	In spring of 2020, the California Department of Education convened a stakeholder workgroup to gather and share innovative strategies, ideas and resources that others have found successful as they provide access to learners with disabilities in distance learning and the imminent reopening of schools.	https://www.sipinclusion.org/distance-learning-resources/
Innovative solutions for social telerehabilitation in the schools of Latvia in the context of inclusive education	The main goal of the National Research Programme's project "Innovative solutions for social telerehabilitation in schools of Latvia in the context of inclusive education" (INOSOCTEREHI) is related to the research of socially important issues and the solution of problems by providing interdisciplinarity and innovation transfer in the fields of socialization and re-socialization, as well as human safety including persons with special needs.	http://telerehabilitation.lv/en
Do2Learn	Do2Learn is a resource for individuals with special needs. It began in 1996 through a National Institutes of Health Small Business Innovative Research grant. Do2Learn team searches out the most talented and creative teachers and clinicians across the world. Its approach is to use the latest technology and expert guidance to create innovative and usable solutions.	https://do2learn.com/

Relevant initiatives

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Examples of some relevant initiatives

Domain	Title	Short description	URL
Accessible learning platform	ATutor	ATutor is an Open Source LMS, used to develop and manage online courses, and to create and distribute interoperable e-learning content. It is WCAG 2.0 compliant.	https://atutor.github.io/
	Moodle	Moodle is an open-source learning management, used for blended learning, distance education, flipped classroom, and other e-learning projects. It is WCAG 2.0 compliant.	https://moodle.org/
Content accessibility	WAI Guidelines – WCAG 2.0 (Web Content Accessibility Guidelines)	The WCAG documents explain how to make web content more accessible to people with disabilities. Web “content” generally refers to the information in a web page or web application, including: Natural information such as text, images, and sounds, code or mark-up that defines the structure, presentation, etc.	https://www.w3.org/WAI/standards-guidelines/wcag/
Accessible ICT	The Global Initiative for Inclusive Information and Communication Technologies (G3ict)	G3ict's objectives and global outreach are aligned with the dispositions of the Convention on the Rights of Persons with Disabilities (CRPD) on the accessibility of Information Communication Technologies (ICTs) and Assistive Technologies.	https://g3ict.org/about-us/our-mission
	OneVoice for Accessible ICT	OneVoice for Accessible ICT Coalition campaigns for improved accessibility for all users of ICT.	http://www.onevoiceict.org/
	Connect A School, Connect A Community	The ITU Connect a School, Connect a Community (CSCC) initiative is designed to promote broadband Internet connectivity for schools worldwide so that schools can serve as community ICT centres for rural, marginal urban and isolated areas with a particular focus on disadvantaged and vulnerable groups such as women and girls, indigenous	https://www.itu.int/en/ITU-D/Digital-Inclusion/Youth-and-Children/Pages/CSCC.aspx

		people, persons with disabilities, youth and children.	
	Global Assistive Technology Encyclopaedia (GATE)	Its purpose is to provide live and up to date information on everything to do with Assistive Technology. It is a showcase of both products and useful sources of information.	https://www.abilitynet.org.uk/
	EASTIN - The Global Assistive Technology Information Network	The EASTIN Association offers Assistive Technologies information services, in support of elderly people and people with disabilities.	http://www.eastin.eu/
	Spanish Open University's new learning opportunities for students with disabilities	Spanish Open University Provides open courses which enable people with disabilities to follow the courses from home.	http://www.opennuniversity.edu/courses/modules/l314
	WebAIM	WebAIM's mission is to expand the potential of the web for people with disabilities by providing the knowledge, technical skills, tools to empower organizations to make their content accessible to people with disabilities.	https://webaim.org/
Other	Inclusion ambassadors	The Inclusion Ambassadors are a network of young people (and some parents, teachers, and youth workers) who share a real interest in seeing better representation of one or more facets of diversity.	https://www.inclusiveminds.com/inclusion-ambassadors
	INCLUSIVE AMBASSADORS Training of teachers as inclusive education ambassadors	This Erasmus+ initiative aims to train the so called "inclusive education ambassadors": teachers, trainers, psychologists, and resource tutors who can support the development, implementation and mainstreaming of successful inclusive education practices.	https://inclusive-ambassadors.eu/

	European Agency for Development in Special Needs Education	It focuses on improving all learners' achievement at all levels of inclusive lifelong learning. This enhances learners' life chances and opportunities for actively participating in the society.	https://www.european-agency.org/
	UNESCO Institute for Information Technologies in Education	IITE is promoting the innovative use of ICT and serving as the facilitator and enabler for achieving Sustainable Development Goals through ICT-enabled solutions and best practices.	https://iite.unesco.org/
	Knowbility	Each year, Knowbility directly serves more than 1000 people through their Accessibility Internet Rally, AccessU, and other training and consulting services.	https://knowbility.org/about/
	The Inclusive Class Blog with Nicole Eredics	Nicole Eredics is an educator who advocates for the inclusion of pupils with disabilities in the general education classroom. She draws upon her years of experience as a full inclusion teacher to write, speak, and consult on the topic of inclusive education to various local and national organizations. Nicole uses her unique insight and knowledge to provide practical strategies for fully including and instructing pupils of all abilities in the classroom.	http://www.theinclusiveclass.com/
	Common Sense	Common Sense is a leading non-profit organization dedicated to improving the lives of all kids and families by providing the trustworthy information, education, and independent voice they need to thrive in the 21st century.	https://www.commonsense.org/education/
	The 15 Best Websites for Parents of Special Needs Children	Raising a child with special needs can be difficult enough, but thanks to the worldwide web, the Internet is full of tons of informational websites that can help parents and their children. There are some helpful sites that are loaded with useful information for parents with a special-needs child, including	https://www.special-education-degree.net/the-best-websites-for-parents-of-special-needs-children/

		information on Autism, deafness, blind-deafness, hearing impairment, intellectual disabilities, multiple disabilities, orthopaedic impairments, serious emotional disorders, specific learning disabilities, speech or language impairments, traumatic brain injuries, Down's Syndrome, and more.	
	Top 12 Websites For Children With Learning Disabilities	Parents and special education teachers often have difficulty finding new tactics to provoke the love for learning in children with learning disabilities. Fast-advancing technology has made the Internet one of the best resources for discovering entertaining activities that teach and excite children. Educational websites assist children with learning disabilities to master basic skills in reading and math or advanced concepts like calculus. To help with that process, the following 12 websites for children with learning disabilities, including dyslexia, dysgraphia, ADHD, and visual motor deficit are presented.	https://www.special-education-degree.net/top-12-websites-children-learning-disabilities/
	Iris Centre	The IRIS Centre is a centre dedicated to improving education outcomes for all children, especially those with disabilities, from birth through age twenty-one, through the use of effective evidence-based practices and interventions.	https://iris.peabody.vanderbilt.edu/
	Understood.org	Since 2014, Understood.org is dedicated to shaping the world where millions of people who learn and think differently can thrive at home, school, and work. Understood.org works with educators, health care professionals, researchers, and human resource professionals to provide proven, vetted information. By providing resources, support, and community,	https://www.understood.org/

		Understood.org can prevent people from being left behind and start to address systemic issues like high school dropout rates, underemployment, and the stigma surrounding disabilities.	
	WATI, Wisconsin Assistive Technology Initiative	The mission of the new Wisconsin Assistive Technology Initiative Development Team is to assist early intervention agencies, school districts, and their partners to provide assistive technology by making training and technical assistance available through our development of new and updated materials related to the provision of assistive technology tools, and services.	http://www.wati.org/

Remote education during crises times

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

Currently we are living an extreme period as we did not experience before. Covid-19 crisis brought new rules in each sphere of the social life. The education system was also affected by the pandemic crisis. Worldwide, schools have closed, social activities have been suspended, etc.

While physical presence was no longer possible, remote education emerged using a variety of tools, ranging from low end-solutions such as printed school material being delivered to the children (Belgium), to teaching via TV (China, Turkey), to applying online (educational) collaboration platforms such as Microsoft Teams (Bulgaria), WebEx and ZOOM (Belgium, Bulgaria).

(not) Challenging for pupils/students with disabilities

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While these solutions offer opportunities to children with disabilities, they also offer challenges. These are listed below. [219]

Advantages of remote education

Remote education allows learners with a compromised mobility to avoid everyday challenges of travel and negotiating the confines of a classroom. Instead, they are able to benefit from an optimised personal study space at home which also accommodates their range of motion.

[219] Pros, Cons of Online Learning for Students With Disabilities. https://www.usnews.com/education/online-learning-lessons/articles/2018-05-18/pros-cons-of-online-education-for-students-with-disabilities?fbclid=IwAR3MnwOORIMuubC0ouAPPu86iP7JNtBO9TT6QlxUmNoZwa9VggHzc4tKgvU

Often, learners that are less able to control their hands and feet because of cerebral palsy, muscular dystrophy, etc. are already used being at home to dictate text or email using voice-activated programmes or speech-recognition programmes like Dragon NaturallySpeaking. Many also use eye-tracking technologies like Tobii (which uses the iris to issue commands to the computer that then speaks for the user).

Learners with psychological or psychiatric disabilities, or post-traumatic stress disorder or cyclical mood disorders obtain the flexibility to map study times according to fluctuations in receptivity.

Learners with Asperger's syndrome and other autism spectrum disorders, or who otherwise struggle socially, can avoid large classroom settings and instead work in familiar, comfortable settings, such as at home. However, a side remark has to be made that confinements also disrupt a schedule to which children in the autism spectrum were accustomed to.

Communicating via forums and social media removes the pressure of interacting with others, especially for learners who are uncomfortable speaking in front of a crowd or who need time to assemble their thoughts.

Online programs may also free pupils from the time pressure. This is very relevant for pupils with learning disabilities like attention deficit hyperactivity disorder (ADHD), dyslexia, visual processing disorder, or dysgraphia. Equally, elements like stress and aural or visual overstimulus and distractions which may occur in the traditional classroom are avoided. Working at home at their own pace, pupils can review materials as often as needed and manipulate the digital text to process information.

Digitised teaching material, subtitled lectures (rare) and forum, and email-based communications offer opportunities to pupils with hearing disabilities.

Pupils with low or no vision can capture class lectures with hand-held digital voice recorders and note-taking apps like AudioNote. Equally, screen reader software, including the open-source NVDA and JAWS, or Job Access With Speech, provides text-to-speech output or a Braille display.

Disadvantages of remote education

However, despite the advantages of remote education, there are a number of disadvantages that are to be considered.

First of all, remote education requires for learners with disabilities to have all needed technical equipment available at home. This ranges from fast internet access, to the availability of a PC/TV/laptop/smartphone depending on the channel used by their educational institute to offer teaching. The impact of poverty on special education pupils has been thoroughly described in various studies[220], and therefore should not be ignored. Some countries (e.g. Belgium) have identified such requirements and have gathered many thousands of laptops to ensure everyone can follow lessons. In other countries like Bulgaria, focus has been on trying to teach also using smartphones, etc.

Digital-based online programmes assume pupils can navigate that content. However, some learning management systems challenge pupils with print disabilities or physical, cognitive or other impairments.

Many schools already lack online tools that are fully accessible and lack clear guidelines about what accessibility means. If they do purchase online learning materials that vendors promised would be accessible, often they find out that they do not meet blind learners' basic needs. A striking example is the fact that not all e-texts are keyboard friendly or accessible and may have a proprietary format that those with visual, motor or physical or sensory limitations cannot easily access. For pupils with motor neuron disease but that have visual acuity, pop-ups and overlays can make web browsing problematic. For those with photosensitive epilepsy, flashing lights or images may cause seizures. In the case of the Eureka ADIBib initiative in Belgium, PDFs of educational material which were not made in an accessible format are being

[220] Save the Children. (2014). Child Poverty and Social Exclusion in Europe. A matter of children's rights. *Save the Children*, Brussels.
https://www.researchgate.net/publication/235313110_The_impact_of_poverty_on_special_education_students, https://inclusion-europe.eu/wp-content/uploads/2015/03/SocInc_EUPovertyRreport.pdf, https://resourcecentre.savethechildren.net/sites/default/files/documents/child-poverty-and-social-exclusion-in-europe-low-res.pdf, https://link.springer.com/chapter/10.1007/978-90-481-2652-1_6

annotated so as to make them accessible for screen reader software. But this requires time, which in a sudden lockdown creates issues.

Those with low vision or colour blindness may have challenges viewing certain colours, fonts and formats. Dynamic e-learning content, like enhancements to e-texts such as videos and graphics that change as the user rolls over or clicks on different parts, can be problematic for those with other visual problems.

Video-based material may withhold information from pupils if they cannot comprehend every non-verbalized action. Also, normal captions cannot tell the whole story.

Visual aids like screen readers and audio transcribers may require higher bandwidth than pupils may have at home. Punctuation tends to be inconsistent from one screen reader to another, and not all marks translate. And keeping pace with improvements means regularly updating software, which can be costly with specialist screen readers.

Online learning does not accommodate for all differences in educational styles, social customs and body language. Chat environments styles can vary, seem strident and intimidating, and thus risk alienating or marginalizing learners.

Children in the autism spectrum depend highly on fixed daily patters. Remote education upsets this pattern and may lead to crises and meltdowns.

Examples

The table below provides some examples of challenges and how they can be addressed.

Some examples of challenges and possible solutions

Challenges	**Solution**
Personal support in missing the classroom	Remote assistance by some persons Example from Italy: https://www.facebook.com/fanpage.it/videos/644612996270926/
Communication using lip-reading hampered by mouth masks	Special mouth masks for pupils who read lips: "This is how deaf and hard of hearing people can still communicate"

	Example from Flanders (Belgium): https://www.vrt.be/vrtnws/nl/2020/04/23/speciale-mondmaskers-voor-leerlingen-die-liplezen/?fbclid=IwAR2WcBk93I0RRybTpFArzHYp-sHpm7LrLpsfb1g13z0gBOleuIQ_k9ZXzbw
Training material and platforms not accessible	Zoom is an easy and affordable conference tool for blind pupils, while homework assignments in the form of Microsoft Word documents and Google Docs can be read by screen-reading technology.
Parents are in panic how their child will be able to follow the lessons.	Talk with the parents and the child to identify their specific needs. Look at it as an opportunity to think creatively and think outside the box to figure out what you can do for this particular learner who's impacted.
How do I adjust my course for remote and accessible education?	Three main tips[221]: Keep it simple – don't try anything new or complex if you don't have to. Don't try to be perfect – this is a significant challenge for everyone. Things will not go as planned. The technology may falter. Pupils may have access challenges. Things will happen. Do your best and that will be enough. Be honest, transparent and respectful – communicate with your pupils about the challenges. Let them know what you're trying to do and ask for help, from them, from us, from your colleagues. Review and be sensitive to the required privacy and security settings.
Staff is not aware of accessibility guidelines for their teaching material	Resources should be made available to teachers, children and parents that lower the barriers towards participating in online courses. An extensive guide on accessibility, especially how to accommodate for pupils online, is needed. Free online resources can be very helpful: Accessible LibreOffice files: https://wiki.documentfoundation.org/Accessibility/Creating_Accessible_LibreOffice_Files Accessible Office documents: https://support.office.com/en-gb/article/create-accessible-office-documents-868ecfcd-4f00-4224-b881-a65537a7c155 (Outlook email, Word documents, Excel spreadsheets, PowerPoint presentations, OneNote notebooks, Sway design, Skype, SharePoint site)

[221] https://svp.umd.edu/keepteaching

	Accessible PowerPoints: https://support.microsoft.com/en-ie/office/make-your-powerpoint-presentations-accessible-to-people-with-disabilities-6f7772b2-2f33-4bd2-8ca7-dae3b2b3ef25?ui=en-us&rs=en-ie&ad=ie Accessible (Word) documents: https://support.office.com/en-us/article/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d

Different approaches and solutions

Latvia

Contributor: Katrina Elizabete Purina-Bieza (University of Latvia, Latvia)

Taking into account the statement of the World Health Organization (March 11th 2020), the Republic of Latvia Council of Ministers declared an emergency situation in Latvia on March 12th, 2020 regarding the spread of the Covid-19 virus, reaching the scale of a pandemic. The course of the study process was also changed and from March 13, the teaching-learning process in Latvia was started remotely in all educational institutions. Distance learning affected all primary and secondary education institutions, higher education institutions, extra-curricular education and sports institutions were closed; trainings, competitions and interest-related education programmes were adjourned in all age groups. Following additional restrictions, pre-schools remained opened, which children could attend after submitting a written confirmation from their parents that the child and family had not visited the Covid-19 affected countries, and had not been in contact with Covid-19 patients. In this statement, the parents also stated that they did not have the possibility to provide childcare in any other way.

Special educational institutions, children with special needs and their parents experienced additional difficulties in the implementation of remote learning. As the Saeima of the Republic of Latvia acknowledged in the April 2020 report “Inclusive Education for Children with Special

Needs in Latvia"[222], it is necessary to provide special support to families so that they can successfully implement distance learning at home. It is also stated that the situation is probably more beneficial for children in boarding schools of special educational institutions, because, establishing all necessary safety measures, education is continued in the usual way and is less stressful for children. In order to solve this situation, a proposal is made to establish a Pedagogical Psychological Support Service, as well as assistance to schools, families and children with special needs could be provided by specialists of the Regional Support Centre. The idea was also implemented and consultations are provided by telephone to 12 special education institutions - development centres in all regions of Latvia[223].

Considering these changes in the learning process at this level, the National Centre for Education of the Republic of Latvia started developing recommendations for principals and teachers of educational institutions, which were integrated in "Guidelines for General and Vocational Education Institutions for the Implementation of Remote Learning"[224], explaining how distance learning should be organized and what aspect should be taken into account to achieve successful continuation of the school year. The guidelines emphasize the implementation of a student-centred learning process, encouraging teachers to pay attention and plan:

- how the teacher will organize the follow-up of each pupil's involvement / presence in learning and psychological well-being;
- how the pupil 's participation in teaching-learning process and its outcomes will be monitored on a daily and weekly basis;

[222] Iekļaujošā izglītība bērniem ar speciālām vajadzībām Latvijā, Latvijas Republikas Saeimas pētījuma gala ziņojums. (2020.gada aprīlis).
https://www.saeima.lv/petijumi/Ieklaujosa_izglitiba_berniem_spec_vajadzibam_Latvija.pdf

[223] Izglītības un zinātnes ministrija. (2020). *Konsultācijas izglītības iestāžu pedagogiem un skolēnu vecākiem par speciālās izglītības programmu īstenošanas jautājumiem ārkārtējās situācijas apstākļos*.
https://www.izm.gov.lv/images/COVID-19/AC_kontaktinform%C4%81cija_2703.pdf

[224] Valsts izglītības satura centrs. (2020). *Metodiskie ieteikumi valsts noteiktās ārkārtas situācijas laikā.*
https://www.izm.gov.lv/images/MaciesMajas/VISC_Skola2030_Vadlinijas-attalinatam-macibam.pdf

- how feedback will be obtained on whether pupils have the necessary digital resources, such as the access to necessary devices and an internet connection to complete the learning tasks;
- whether and how pupils receive the necessary support at home from their parents;
- how pupils, in general, feel in the learning process.

Specific conditions for planning remote learning include (1) discussing and introducing new learning conditions, tools and communication processes with pupils at the first teacher-pupil meeting, (2) providing support for pupils in planning their time and learning tasks, (3) using interactivity to support pupil's learning motivation and (4) using assessment to support and improve their learning process.

However, the guidelines developed by the National Centre for Education of the Republic of Latvia lack the insight into how to work more successfully and help children with special needs in the remote teaching-learning process. As a result, various schools and organizations developed recommendations on how to fully ensure quality remote inclusive education. Riga 5th Primary School has developed an "Individual education plan for the implementation of distance learning for pupils with severe mental disabilities or several severe disabilities"[225], which emphasizes the main factors for implementing the remote learning process:

- planning of the teaching-learning process weekly and daily (individual education programme acquisition plan examples have also been developed and provided),
- being in close communication with the pupil's parents, setting out the weekly and daily learning plan and sending it to parents in a timely manner,
- seeking for constant feedback from the pupil 's parents,
- study content and tasks gathering and selection according to the interests of each pupil,

[225] Rīgas 5. pamatskolas attīstības centrs. (2020). Individuālais izglītības plāns attālinātu mācību īstenošanai izglītojamiem ar smagiem garīgās attīstības traucējumiem vai vairākiem smagiem attīstības traucējumiem. http://r5sips.lv/pdf/ac/Ieteikumi_attalinatam_macibam032020.pdf

- each activity planned for pupils must be divided in smaller steps and specific tasks and described in detail so that parents can understand and follow the execution of the assignment,
- a teaching-learning plan sent to parents should be supplemented with website addresses and numbered attachments (e.g. worksheets).

According to Anita Ščerbinska (director of Koknese Primary School Development Centre) the three main challenges that had to be addressed or are still being resolved[226]:

1. Creating a common understanding of remote learning for pupils, parents and teachers. There is a need for a clear understanding on how and why it is necessary to continue to follow a common daily routine for everyone involved in special education,
2. To provide information to pupils and their parents about the use of communication technologies. It is important that neither children, nor parents develop anxiety and additional stress when using new tools or resources, but that it is necessary to find an opportunity to explain and initially use simple tools that are very satisfying and useful in later life.
3. There is a need to create a platform with access to digital learning materials for pupils with special needs.

In April 2020, the concept of organizing the remote learning "Your Classroom"[227] developed in Latvia started gaining significant recognition on a global scale and was viewed in more than 50 countries of the world: Estonia, Germany, United Kingdom, Belgium, Russia, USA, Sweden, Norway, Finland and elsewhere. "Your Classroom" was organized using a free-to-air television platform: (1) ReTV, where lessons were broadcast for 1st to 4th grade pupils, and (2) Sportacentrs.com TV, where lessons were broadcast for 5th to 12th graders. The lessons were designed as 20-minute audio-visual materials covering the content of one remote lesson, encouraging pupils to strengthen their existing knowledge and acquire new knowledge in an engaging and interesting way. The project was implemented with the support

[226] Izglītības un zinātnes ministrija. (2020). *Par mācībām attālināti speciālajā izglītības iestādē Kokneses pamatskolā – attīstības centrā stāsta direktore Anita Ščerbinska.* https://www.izm.gov.lv/lv/aktualitates/3989-maciesmajas-dienasgramata-3-diena-kokneses-pamatskolai-attistibas-centram

[227] Izglītības un zinātnes ministrija. (2020). *Tavaklase.lv iniciatīva*. https://www.tavaklase.lv/

of the Ministry of Education and Science and in the course of the project about 100 Latvian teachers and field enthusiasts from different Latvian cities participated in lesson development. At the request of the Latvian Association of the Deaf (LAD), the Ministry of Education and Science has created an opportunity to provide sign language interpretation for lessons in “Your Classroom”. Sign language translation is currently available in mathematics, biology, chemistry, natural sciences, Latvian in certain age groups of students[228]. The Organization for Economic Co-operation and Development (OECD) has included "Your Classroom" among the world's best educational solutions during the Covid-19 pandemic.

Based on the results of the survey carried out by the Ministry of Education and Science collaborating with Edurio “End-of-school year surveys”[229], the learning process was mostly organized by pupils’ self-directed learning:

- performing tasks using digital tools and then sending the answers to the teacher,
- performing tasks on interactive platforms,
- performing tasks in notebooks / on pages,
- watching teacher-prepared video lessons.

36% of the surveyed pupils emphasized that they spent much more time studying remotely than at school. The main reasons for the duration of the study work, mentioned by pupils, were:

- difficulty concentrating (40% of pupils),
- misunderstanding of tasks (37% of pupils),
- the need to complete all assigned tasks remotely, as opposed to full-time learning (34% of pupils).

[228] Izglītības un zinātnes ministrija. (2020). TV projekts “Tava klase” tagad pieejams arī bērniem ar dzirdes traucējumiem.

https://www.izm.gov.lv/lv/aktualitates/4039-tv-projekts-tava-klase-tagad-pieejams-ari-berniem-ar-dzirdes-traucejumiem

[229] Edurio, Izglītības un zinātnes ministrija. (2020). Mācību gada noslēguma aptaujas. https://home.edurio.com/izm-gada-nosleguma-aptaujas?fbclid=IwAR2rcHRoKJ8gltPz-j1TEFw6y86z8iRwBdlJovy5PCLTyQz2wcJSEvyuOtQ

Teachers also emphasized that organizing the learning process remotely required significantly longer working hours (76% of teachers), mainly due to:

- development of new teaching materials and adaptation of existing teaching materials,
- providing remote feedback to pupils,
- correction of works submitted by pupils.

The survey concluded that young children and children with special needs lacked opportunities to socialize during the remote learning process.

The Ministry of Education and Science of the Republic of Latvia has developed three models (A, B and C) for the beginning of the new school year and how to organize the teaching-learning process, taking into account the epidemiological situation and the possibility of ensuring social distancing in common areas:

- Model A - face-to-face learning. Pupils follow social distancing rules, personal health monitoring and hygiene requirements and do inform school staff in a timely manner of any changes in their health.
- Model B - if the educational institution cannot provide full Model A implementation due to small common spaces or a large number of pupils, then semi-remote studies are carried out. In this model, primary school pupils have full-time face-to-face learning, while primary and secondary school pupils spend 40% -60% full-time and the rest of the teaching-learning process is conducted remotely.
- Model C - if COVID-19 is diagnosed in an educational institution or there is a large increase in the number of patients in the country, then remote learning is implemented. This model can be applied to a class, a group of classes, or an entire educational institution. In remote learning process, the learning content can be reduced compared to face-to-face learning.

Some examples of challenges, possible solutions and outcomes in Latvia

Challenge	**Provided solution**	**Outcome**
Creating a common understanding of	UNESCO has developed material making common inclusive education understanding during	Educators note the benefits of working with parents to

remote learning for pupils, parents and teachers. There is a need for a clear understanding on how and why it is necessary to continue to follow a common daily routine for everyone involved in special education.	COVID-19 crisis. The guide is mainly focused as a support material for parents[230]. For learners who have intellectual or multiple disabilities with significant support needs, this consistency in routine and expectations, as well as an open, collaborative relationship between the school and parents is essential. The staff of many schools and parents already work very closely together and these previously established relationships can be an asset in times when pupils are unable to attend classes in the school building for long periods.[231] Initial remote meeting: Meeting with the parents to go over the learning process and programme is critical. Present accommodations that are useful in the classroom; such accommodations could include frequent breaks, flexible seating, sensory tools, fidgets to focus, reduced distractions, motor breaks, and chewing gum while working independently. Educators note the benefits of working with parents to replicate some of these accommodations at home.	replicate some of these accommodations at home. Once a mutual understanding between parents and teachers is recognized and replications of accommodations are established, a weekly check-in has been useful in modifying the accommodation needs. Remember - having too many goals, assignments, and expectations has led to failure and diminished learner motivation. “Parents seem to be more invested as they take part in their child’s programming,” said Aimee Johnson, an occupational therapist in Auburn, New Hampshire. “It’s a perfect opportunity for parent education and collaboration. Parents can see the skills their children are working on and can carry them over more effectively.”[232]

[230] UNESCO. (2020). *Another COVID-19 Front line: Parents of children with disabilities*. https://en.unesco.org/news/another-covid-19-front-line-parents-children-disabilities

[231] Illinois State Board of Education Special Education Services Department. (2020*). Remote learning for students with significant intellectual or multiple disabilities*. https://www.isbe.net/Documents/Intellectual-Disabilities-Ideas-During-Pandemic.pdf

[232] Welby, K. (2020). *How to improve distance learning for students with IEPs.* https://www.edutopia.org/article/how-improve-distance-learning-students-ieps

	Goal setting: Pick a programme objective or two each week to focus on with your pupils. Service delivery participation: Occupational therapists, physical therapists, and speech and language therapists consider that the most significant benefit to providing services remotely is parent involvement. Many are re-creating services to involve fun activities that parents can participate while the therapist is watching virtually and making suggestions.	
Both parents and the principal of special schools anticipate that for many children with special needs, such a long time being out of their educational routine will result in their developmental "fall back".	It is now particularly important to clearly define the minimum requirements (objectives) that each pupil must meet in order for them to learn the basics and obtain at least a sufficient grade. It is important to think about how the feedback from these pupils will be received and what extra consultation opportunities they will have.[233] Teaching-learning process in special schools should be extended despite summer holiday. In June, all special education institution teachers are still working and preparing for the next school year. Therefore they could adapt for a few summer months and more purposefully promote the	The learning process will be formal. Firstly, because pupil s' intellectual abilities are limited - pupils have not developed self-directed learning skills, therefore remote learning is not possible. Each case is different, individual. Schools, parents and LU representatives are sceptical about remote education for children with mental health disabilities whereas this is neither theoretically, nor practically justified.[235]

[233] Rubene, Z. (2020). Projekta MansHUB pētnieki aicina neaizmirst par skolēniem un studentiem ar speciālajām vajadzībām un iekļaujošo izglītību arī Covid-19 radītās krīzes situācijā. https://www.lu.lv/par-mums/lu-mediji/zinas/zina/t/58487/

[235] Izglītības iestāžu darbība ārkārtas situācijā, Izglītības, kultūras un zinātnes komisijas sēde. (2020). https://titania.saeima.lv/LIVS/SaeimasNotikumi.nsf/webSNbyDate?OpenView&count=1000&restrictToCategory=18.03.2020

	development of special pupils by integrating various extracurricular activities into the programme.[234]	
Engaging learners with disabilities, supporting learning motivation.	Many of the accessibility features you will need are embedded into Microsoft 365 products. You can turn on 'focus' to eliminate distractions, make displays bigger, turn on captions or 'check accessibility' of content by clicking on the button next to spell check.[236] The Mindful Knight is a medieval interactive world that teaches mindfulness, social awareness and self-regulation and we have put together some lesson plans to get you started. Minecraft: Education Edition, allows learners to co-play, develop leadership skills, and explore and create worlds. The free educational content we have curated lets players explore the International Space Station though a partnership with NASA, learn to code with a robot, visit famous Washington D.C. landmarks, find and build 3D fractals, learn what it's like to be a marine biologist, and so much more. It includes Immersive Reader, and will read highlighted words and images out loud – like 'Creeper' and 'Mooshroom'. It's also free to download through June.	Microsoft product user Lauren Pittman: "I am a resource special education (SPED) teacher, which means that I work with students who are two-plus years behind in their reading, writing and math skills. These students present such a challenge because they have such large hurdles to overcome just to find "average." They are completely dependent upon you to access their education and many times this makes reaching them in the classroom feel impossible. In order to bridge this gap—the reality of where they are to the possibility of where they could be—you need to have tools that allow you as the teacher to make their independence possible." Crucially, learning games need to be perceived to be as good as commercial games. To sustain engagement, fun, speed and ease of use are

[234] Izglītības iestāžu darbība ārkārtas situācijā, Izglītības, kultūras un zinātnes komisijas sēde. (2020). https://titania.saeima.lv/LIVS/SaeimasNotikumi.nsf/webSNbyDate?OpenView&count=1000&restrictToCategory=18.03.2020

[236] Microsoft Accessibility Blog. Tips for your at-home students with disabilities. https://blogs.microsoft.com/accessibility/inclusive-remote-learning/

	FlipGrid is a favourite in our household, and is a neat way to drive connection with fellow classmates, friends and teachers. Students record 'short awesome' videos based on topics you (or your educator) create. Again, there are some sample lesson plans to get you started. Captions are available for the videos and it is navigable via screen readers.	key, as is variety: in context, mission and complexity.[237] Insight of what kind of educational games children would like to play[238]: learning environment should have a story format, 'using fantasy to provoke curiosity, allowing the learner choice and control, and providing opportunities for creativity' (Becta 2001), game context must be relevant to young adults' which ensures lifelong learning, learning opportunities must be embedded in the game structure. There should be links made to external materials as a part of the game.
Children with special needs often rely on communication with others on daily basis: being together with peers, purposeful activity together with an	For learners with technology and internet access[239]: Establish regularly scheduled connections, even if brief, between the pupil and school staff and/or other students via live, interactive platforms so that the pupil regularly sees and hears people he or she associates with school. If possible,	The survey carried out by the Ministry of Education and Science collaborating with Edurio "End-of-school year surveys" concluded that children with special needs lacked opportunities to

[237] Mitchell, A., & Savill-Smith, C. (2004). *The use of computer and video games for learning.* Learning and Skills Development Agency. https://dera.ioe.ac.uk/5270/7/041529_Redacted.pdf

[238] Mitchell, A., & Savill-Smith, C. (2004). *The use of computer and video games for learning.* Learning and Skills Development Agency. https://dera.ioe.ac.uk/5270/7/041529_Redacted.pdf

[239] Illinois State Board of Education Special Education Services Department. (2020). *Remote learning for students with significant intellectual or multiple disabilities.* https://www.isbe.net/Documents/Intellectual-Disabilities-Ideas-During-Pandemic.pdf

individual teacher (well known to a child), individual classes with support specialists (speech therapists, physiotherapists, etc.).	incorporate this into the pupil's daily remote school schedule. If the pupil is engaging in virtual one-to-one, small group, or class gatherings, use the opportunity to reinforce social bonds by reviewing who is present (image, name, or voice) and having the pupil point to the image and name and greet participants. To foster ongoing social connections, assist the pupil, as needed, to engage in chat with the staff and peers via secure/limited social media platforms moderated by school personnel. Give the pupil opportunities to practice a variety of skills such as speaking/listening; use of technologies; fine motor skills (e.g., using the keypad to type); letter, number, word, or name recognition; and other skills by phoning or texting with peers and staff, with assistant as needed. Remote Learning for Pupils without Technology and/or Internet Access Arrange with the teacher or other parents for socially distanced walk-by or drive-by visits with the staff or peers to maintain social connections and practice social or communication skills.	socialize during the remote learning process.[240]

[240] Edurio, Izglītības un zinātnes ministrija. (2020). *Mācību gada noslēguma aptaujas*. https://home.edurio.com/izm-gada-nosleguma-aptaujas?fbclid=IwAR2rcHRoKJ8gltPz-j1TEFw6y86z8iRwBdlJovy5PCLTyQz2wcJSEvyuOtQ

Bulgaria

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The use of new information technologies in the education process changes the traditional view of education and leads to:

- Improving education management mechanisms based on the use of automated databases of scientific and pedagogical information;
- Improving the methodology and the strategy for selecting the content, methods and organizational forms of training, corresponding to the tasks of developing the personality of the pupil in the contemporary conditions of informatization of society;
- Establishment of methodological training systems aimed at developing the intellectual potential of the pupil, forming skills for self-acquisition of knowledge, information and training, experimental and research activities;
- Creation and use of computer testing, diagnostics, monitoring and evaluation systems;
- Applying the capabilities of electronic textbooks as a learning tool, subject to training, management and communication tools, information processing tools.

The integration of new information and communication technologies into learning is objectively determined by the need of response to the educational needs of all pupils who have grown up in a high-tech environment and are active users of high-tech products and services in their day-to-day activities. The characteristics of their perceptions and thinking, formed in information-saturated, multimedia, interactive environments, require new ways of learning and exploring. They have direct access to digital technologies in every aspect of their lives and it is quite natural that this has a huge impact on their behaviour and their way of thinking. This shows that new technologies offer many more opportunities and at the same time, more challenges to pedagogical specialists.

The objectives of the new technologies are aimed at the personal development of each participant in the educational process as follows:

- All participants learn through experience using modern technologies;

- Creating an interactive environment that allows freedom of choice and expression of each pupil;
- Developing skills for working with computer systems and software and communication skills in the environment of active team collaboration;
- Expanding opportunities for social interaction and cooperative work;
- Respect for individual differences, needs and interests of pupils.

The use of information and communication technologies increases pupils' interest in the subject from the educational field, visual presentation of the learning material through multimedia. When working with multimedia programmes, feedback is provided, quick search of the required information, time to record multiple calls to hypertext, together with short text, the explanations are accompanied by a demonstration of animation effects and synchronous conversion.

The modern teacher has to use new technologies in his/her everyday work by expanding the learning environment beyond the classroom.

The school is not just a place where learners have access to new technologies, but it is a space where modern pedagogical methods are used and pupils' key competencies (skills) are developed.

Teachers should have the necessary knowledge and skills in the priority areas of education - new technologies and interactive methods. New technologies in education undoubtedly support the process of mastering knowledge and skills. In pedagogical practice, there is a high level of efficiency when the information is used to combine different types of information - text, static graphics, audio and video.

When using information technology in training, the teacher, in addition to traditional teaching methods and specific methods, can apply the following to increase their teaching and learning experience:

- Supporting method. In this method, the technologies are used for increased precision when presenting the work. By using additional programmes, it helps to increase the security and confidence of learners;
- Method for examination of the control - Technology helps the pupil to explore, experiment and build solutions. Simulation software packages enable pupils to

experiment with virtual environments that represent real life in the learning environment;

- Guiding method - the information is presented to the learner at the appropriate level and time, enabling feedback on progress in learning. New technologies enable pupils to engage in new forms of creative design by combining different means into one product;
- Resource method - technologies are used to access information, etc. resources, whether online or offline, using CDs and other software. Using technology as an information resource enables pupils to develop their abilities by asking questions and doing research;
- Linking method - technologies are used for communication among pupils.
- The use of these methods by teachers in the educational process can stimulate and maintain the interest of pupils in modern training, complementing traditional ones with the benefits of computer and new technologies.

In this context, it can be stated that the use of multimedia resources in the training process has some advantages such as:

- Easy, interesting and accurate presentation of the content of the course material;
- Easy and fast updating of the learning content;
- Increasing the possibility for self-employment and group work;
- Creating a positive motivation for learners to the content;
- Targeting learners towards activities that develop thinking, comparing, generalizing, creativity, etc.

Modern educational practice faces the challenge of constantly seeking options for improvement, leading to an increase in the motivation and interest of its participants (children / students). With the development of information and communication technologies, the game acquires new dimensions and features that make it an increasingly important part of the education of children and students. It combines elements of all learning methods, and it also stimulates the activity, motivates and entertains. All these characteristics make it particularly important as a learning tool.

Here is the place to point out that the game's design is used to successfully use the game in the educational process and to achieve the goals. It requires a high level of competence both

in the field of pedagogical design and in the design of digital games and software programming in order to achieve a good balance between the elements of learning and entertainment.

When using the game, the teacher must have clearly defined educational goals.

- Select a suitable platform that meets the needs of the target group, the learning content and the plot of the game.
- The environment should be interactive, designed to support active learning so that pupils can build their knowledge by interacting with information, tools and materials and in cooperation with other pupils. It should encourage research, problem solving, create the conditions for pupils to experiment with their ideas, to consolidate what they have learned.
- The environment must provide adequate feedback, which is recommended to be structured not to the micro level, but a higher one, to enable learners to gain greater satisfaction for its overall progress in the strategy used for their overall performance instead of any specific action or solution during computer game learning.
- The environment should engage learners with explicit and achievable goals, provide a high level of interactivity research, multiple and different ways to achieve the success. The game must stimulate pupils' curiosity and provide an appropriate level of challenge and control over the environment.
- The game should be relevant to the context of learning for which it is intended, the curriculum and the way of evaluation is associated with the problems of the course, meet the time and comply with the requirements and needs of pupils for which it is intended.
- The environment and related activities should support and create conditions for reflection, enable pupils to understand the game and contextualize the learning.
- The environment should be constructed in a way that provides equal experience for all pupils, taking into account differences in the level of their available knowledge and experience. The best thing is if it allows personalization and gives equal opportunities for all learners to participate. Where possible, alternative pedagogical approaches should be applied that are adequate to pupils’ individual performance.
- The game should be implemented as a mechanism to ensure continuous process of support, from the initial orientation and basic tasks that provide quick success, with the increasing complexity of tasks, create the feeling that the virtual

environment is not limited. The goal of the game experience is to bring players to a higher level of competence.

- The game must include an evaluation module that allows data to be collected during each session. These data can be used as an assessment tool, giving a clear picture of the performance of each pupil.

The **serious educational games** that can be used by the pedagogical staff are:

- Serious Educational games - they help the process of perceiving and understanding the knowledge. They are used to increase activity and motivation.
- Simulations and prototypes - used to analyse knowledge, reinforce and improve skills;
- Case solving and modelling games - require more in-depth knowledge and analysis skills; stimulate the creativity of learners;
- Games with aims to win badges and medals - these games are usually levelled and have a different level of complexity, stimulating learners to earn more badges, medals and prizes;
- Teamwork games, virtual worlds - develop world-class skills for working in a group, through collaboration and mutual support. Often these games are related to some type of social networking or virtual world. The environment provides opportunities for joint success. Social skills are being developed here.

The development of technologies and mobile applications in education lead to a qualitative change in the educational process, mainly to increase the interest and motivation of pupils because they have fast access to the Internet. Mobile learning is seen as a set of approaches, tools, practical parts, custom applications, and knowledge access resources at anytime, anywhere. Mobile technologies (mobile phones, portable and small computers, music and video players) that are everywhere and are part of the pupils' daily life are at their core. In many ways, these technologies improve learning.

The benefits of mobile applications are:

- Organization of group and team activities, thanks to cloud services;
- Organization of individual work and creation of a personal educational space;
- Diagnosis and reporting of the individual characteristics of the learners;
- The use of educational games;

- Developing skills for continuous training;
- Additional technological capabilities (touchscreen, accelerometer, gyroscope, magnetometer, etc.)

The following mobile applications can be used:

- QR code - Added Reality (Augmented Reality -AR) and Smart Textbooks;
- Testing Apps and Forming Apps - Plickers, mQlicker;
- Graphic calculators – Desmos.

Mobile apps are available through the Google Play for Android digital distribution platforms; App Store for iOS, etc., and many of them are free, which is an advantage.

It is important to point out that the choice of technology depends on the teacher, the form of training, and the needs of learners. Technologies can be used alone and in combination with other technologies, i.e., they can be combined.

In recent years, school education has used educational robotics as a teaching/learning tool that encourages pupils to use guided discovery, to place and solve problems. Pupils get used to working in groups, solving problems, finding solutions and verifying the results. In pedagogical practice, there are good examples in this direction in innovative schools with the application of STEAM training. STEAM training (Science - Technology - Engineering - Art - Mathematics) is the abbreviation of this type of training and is conducted through the methods of science, technology, engineering and mathematics.

A major advantage of STEAM training is the ability to integrate separate learning subjects within a project framework. Combining learning subjects on the one hand, allows children/students to understand the links between the subjects they study at school and, on the other hand, to answer questions such as "Why do I need this knowledge or skill“? and "Where will I use what I am studying now in the future “? This training is giving the opportunity to develop educational robotics with the aim of developing the creativity, critical and creative thinking of learners. Children and students are given the opportunity to develop their mathematical, scientific and personal skills through educational robotics. Project-based learning allows different groups of pupils to develop a number of individual decisions on the same case. Work on solving a particular problem teaches children/students to plan, organize and research. They use the research to create possible solutions to the case and then to make adjustments to the proposed solutions.

Educational trends tend to include children from an early age into creativity, imagination and self-discipline, and this is done through robotics and digital technologies. The aim is to overcome the learning difficulties and to raise the pupils' level of competence. In school, education can use systems such as: "Lego Mindstorm and WeDO", "Turtlebot", "BeeBot", "Robot NAO", Educational Robots, etc.

Keep in mind that if there are several school-age children and one phone /tablet /computer in the family, this can be a problem if you plan to use a platform that includes real-time viewing and /or material use /problem solving online. Then a schedule should be made of who will use the device when. This would also be a problem in families with parents whose work is computer-related and who will work from home.

Do not expect, no matter how prepared and trained you are, to work with electronic platforms and resources, where potentially everything will not work perfectly from the first time and from the first day. Don't be disappointed! These days are precisely the time when we can test what works, what does not, and how to adapt things to work.

Be prepared to adapt the chosen methods and means on a daily basis according to what the pupils give you. A system is more alive the faster it adapts.

Seek the help of parents - they can be your first assistant to ensure the commitment of pupils and that they will take the necessary time. Don't worry about some parents having a low level of education: if they have a commitment to their children's education (and this is often the case with the most uneducated), they will be able to secure their children's commitment. It is now a period of crisis. Approach your parents by showing them that together you can overcome this crisis. This unites and creates communities. This will strengthen the bond between parents and teachers. For Roma, a sense of belonging to a community is particularly important, understandable and recognizable. In addition, in the Roma community, mutual aid is one of the main values and widespread practice. Show your parents that you trust them and it would be difficult to cope without them.

Seek the help of educational mediators and NGOs working with the parents of the most marginalized families. They can reach them, but remember that they need to be properly equipped and instructed, as mentioned above.

Think about how to make the pupils themselves active in this process: assign them responsibility, give them the opportunity to create things - this will provoke their interest.

Belgium

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In Belgium, remote education can be preferable as the last option. However, this decision should be taken by several stakeholders such as teachers, pedagogical supporters, CLB, and family. In case of the need for remote education, CLB officers control the process and examine the need for remote education. Besides, they provide alternative devices to keep pupils connected with the classroom. Bednet/AdiBib are some of the main instruments to follow the courses from home. KlasCement also provides a platform to have online sessions.

Some examples of challenges, possible solutions and outcomes in Belgium

Challenge	Provided solution (with URL)	Description	Outcome
Attending lessons in person/ physically	Bednet - www.bednet.be	Synchronous internet education. Bednet ensures that sick children and young people who are temporarily unable to go to school are still in the classroom from home. This way they join the lesson and they continue to see their friends. Both five-year-olds and children from primary and secondary education are eligible. Bednet connects the sick child to his or her class live via the internet: the class sees the Bednetter on the computer screen at the	Since its start, Bednet has been used more than 4116 times in 1621 Flemish schools. In more than 1 in 4 Flemish schools, there was a long-term or chronically ill child who could be connected to his class thanks to Bednet. In 912 schools this even happened twice or more. 737 children have worked with Bednet for 2 or more school years. A Bednet process takes an average of seven months. The diseases most frequently requested for Bednet were

		back of the class. Via a camera that the child can control from home, the child can follow the lessons and / or talk to his classmates. Bednet is free for parents and school: computer, internet & guidance.	psychological frailty (22%), cancer (19%), and disease of the bone-musculature and connective tissue (15%).
Reading lesson material	Eureka ADIBib - www.adibib.be	Eureka ADIBib provides online resources and courses for people with disabilities.	These resources support pupils with special needs to have extra resources designed based on their special needs to be included in mainstream education.

Cyprus

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Professional Development during crises

Due to the coronavirus situation, the Ministry of Education of Cyprus decided to shut down all schools (pre-primary, primary and secondary) on March 22. Secondary school pupils who are in the final year of their studies returned on the 11th of May to prepare for their final exams, while other primary and secondary education pupils returned on May 21st. Up to those dates, pedagogical support and information to learners of all levels, teachers and parents was provided through different websites. Through distance education, teachers have been trained to create virtual classrooms (using several resources and tools) to support their pupils' learning.

The Cyprus Pedagogical Institute (CPI), in the context of the promotion of vocational learning of teachers of all levels offers optional or part-time seminars by its officers, as well as other seminars, based on the constantly increasing needs that the current situation creates. The seminars are offered remotely, through the Online Learning Environment - Moodle

(https://elearn.pi.ac.cy) that the CPI has been utilizing in recent years, and/or through the MS Teams application.

Additionally, the Ministry of Education has created a website with useful links related to the general principles of distance education. At the same time, useful teacher material, tools and resources for distance education and learning, as well as pedagogical ideas and examples that teachers can use to develop their own activities, questions, and tasks have been made available.

More information can be found at: http://enimerosi.moec.gov.cy/ypp10606

Different approaches and solutions

Some examples of challenges, possible solutions and outcomes in Cyprus

Challenge	Provided solution	Outcome
Pedagogical support for learners of all levels and classes through distance education	Ministry of Education, Culture, Sports and Youth website: http://www.moec.gov.cy/endeiktiko_yliko.html The gate for schools: www.schools.ac.cy	Useful material for learners of all levels about their school subjects posted and constantly multiplied
Pedagogical support for pupils, teachers, and parents	Pedagogical Institute of Cyprus website: www.pi.ac.cy	Useful material for pupils, teachers, and parents posted
Psychological support for pupils and their parents during the coronavirus crisis	The Educational Psychology Service: http://www.moec.gov.cy/edu_psychology/arthra_erevnes_meletes.html	Material prepared by psychologists to support pupils of different age groups, to understand what coronavirus is and its consequences. Moreover, guidance material to support parents and youth
Parents and pupils' activities online	Ministry of Education, Culture, Sports and Youth website: http://www.moec.gov.cy/dkpe	Activities online using the website of the Environmental Education/ Education Unit for Sustainable Development. Useful material on

		environmental education can be found on the website, which provides material for pupils and their parents. Ideas for parents on how to spend their time creatively with their children are shared. The material is divided into five basic categories related to: a) simple constructions on the subject of the environment, b) simple experiments based on the environment, c) pleasant pedagogical activities of an environmental nature, d) interactive games with environmental content, e) electronic environmental fairy tales (e-books).
Software for pupils to do their homework easily and for free	Office365 website for schools http://office365.schools.ac.cy/	Information for free software licenses for students and teachers through the Microsoft 365 service
Teacher training on how to apply useful tools for distance learning	Ministry of Education, Culture, Sports and Youth website: http://enimerosi.moec.gov.cy/ypp10630	Utilization of the Microsoft Teams application (MS Teams) in the learning process. Distance learning training for teachers of Gymnasiums, Lyceums and Technical Schools and teachers of primary 5th and 6th grades on how to use the Microsoft Teams application.
Organization of meetings for setting strategic goals for distance learning	Ministry of Education, Culture, Sports and Youth website: http://enimerosi.moec.gov.cy/ypp10630	Teleconferences with the secretaries of schools to set the goals for pupils who are in the 5th and 6th grades of primary schools and exchanged views on the content and methodology of this type of teaching, as well as on the asynchronous pedagogical support given to the rest of the classes and the pre-primary school.
Pedagogical staff training to get the knowledge to apply distance education	Ministry of Education, Culture, Sports and Youth website: http://enimerosi.moec.gov.cy/ypp10606	The Ministry of Education is training the teacher staff on how to create their virtual classrooms using the Microsoft Teams app and it has

	Pedagogical Institute of Cyprus website: http://www.pi.ac.cy	created a website with useful links about the general principles of distance education. At the same time it has posted useful material, tools and resources for distance education and learning, as well as pedagogical ideas and examples that teachers can use to develop their own activities, questions and tasks.
Continuous Professional Development of Teachers	Pedagogical Institute of Cyprus website: https://elearn.pi.ac.cy	The CPI, in the context of the promotion of vocational learning for teachers of all levels offers optional or part-time seminars that are scheduled to take place during the next period by the CPI officers. The seminars are offered remotely, through the Online Learning Environment Moodle (https://elearn.pi.ac.cy) that CPI has been utilizing in recent years, and/or through the MS Teams application.

How the social media and internet campaigns can promote awareness of inclusive education

Latvia

Contributor: Arta Rudolfa (University of Latvia, Latvia)

1. The LAMPA Conversation festival creates an environment and an impulse for personal growth. The festival offerings enable one to overcome apathy: two uplifting days, everyone, who wants to learn and talk about issues important to Latvia, Europe, and the world. Discussion "Learning with a child with special needs. What do typical children and society gain?" Abstract: Our society goes on to say that children with special needs will study alongside typical children in general education schools. This possibility frightens so many - educators, parents, sometimes (but rarely) also children. However, being together, including children, has indescribably many important benefits for every child, for educators, for society as a whole![241] Representatives of the movement "We do not want to burn out"[242] and the social project "Children are not born with prejudice"[243] will talk about this in the discussion. (2020)

2. Charity campaign "Angels over Latvia" *(Eņģeļi pār Latviju).* The sincerest charity campaign invites everyone to become guardian angels of children, giving what is really important - the opportunity to be healthy and happy. The funds donated during the campaign will provide assistance to children by ensuring therapies, medications, aids, equipment, as well as innovative treatment and assistance in emergencies. The charity campaign takes place from November 12 to January 12. However, on December 22, viewers TV channels of TV3 and LNT will be greeted by a special Christmas concert.[244] (every year since 2007)

[241] https://festivalslampa.lv/lv/programma/pasakumi/1339

[242] https://www.facebook.com/messaviemberniem/posts/2411694992387018/

[243] http://news.lv/Kurmenite/2019/02/28/berni-nepiedzimst-ar-aizspriedumiem

[244] https://skaties.lv/engeli/

3. Charity campaign "Goodness Day" *(Labestības diena)* - Every year with the help of the "Goodness Day" campaign we have been able to change the lives of many children and their families. This year, in a social campaign donors donated funds to help 48 children whose health needs support and that is not paid for by the state.[245] (every year since 2007)

4. The Children's Hospital Foundation continues the charity campaign "I undertake**"** *(Es apņemos)* to help 40 children with AST provide early intervention. The funds donated during the campaign will provide assistance to children by providing therapies, medications, aids, equipment, as well as innovative treatment and assistance in emergencies. Data from the National Health Service show that in 2019, there were 2 369 children in Latvia who were diagnosed with an autism spectrum disorder (AST), Asperger's syndrome, or mixed specific developmental disorders. These children are supported by donor support, as most often the treatment is not paid for by the state. Negotiations have started with the Ministry of Health and the Ministry of Welfare on helping children with AST, Liene Dambiņa, head of the Children's Hospital Foundation, informed in a press release.[246] (2020)

5. From June 29 to July 13, it will be possible to follow the analytical research project "Eternal Children" *(Mūžīgie bērni)* on the social media and media "Re: Baltica". Journalists will find out what the state's position is and what still should be done to improve the lives of families with severely ill children. What does it mean to dedicate life to someone else's life? To deal with your own forces, to ask someone for help or to make unthinkable decisions?[247] (2020)

6. The charity initiative – "We will give 40 children the opportunity to live normally!" *(Mēs dosim 40 bērniem iespēju pilnvērtīgi dzīvot!)* To provide therapy for 40 children with AST under the age of 5. 100,000 euros are needed! The aim of the campaign is to raise 50,000 euros in

[245] https://skaties.lv/labestibasdiena/jaunumi/

[246] https://www.lsm.lv/raksts/dzive--stils/vecaki-un-berni/berniem-ar-autiska-spektra-traucejumiem-nepieciesams-valsts-apmaksats-pakalpojums.a368816/

[247] https://www.lsm.lv/raksts/zinas/latvija/ar-mediju-projektu-muzigie-berni-velas-panakt-izmainas-smagi-slimu-bernu-aprupe.a365272/

donations, which will be doubled by the EBRD / EBRD *, thus helping 40 children! (European Bank for Reconstruction and Development).[248] (2019)

7. The Autism Cabinet and the Children's Hospital Foundation are releasing a new series of videos that discuss not only the issues of AST and sensory perception but also the causes of autism, rehabilitation methods, and much more.[249] (2019)

8. Parents of children with special needs ask for the support of the President. With the slogan "We do not want to burn out" (Mēs negribam izdegt), parents want to draw attention to the fact that they need support. In the video, they do not ask for benefits, but for support, understanding, respect, and acceptance. [250] (2019)

9. The "High Five" *(Dod pieci*) social campaign, which each year selects a group of society who need help and support, to collect donations (radio DJs live in a glass house for a week and invite well-known people, politicians to the conversation or performance. Donations are collected by voting for the songs played on the radio). And so, in 2015, the campaign "Families with specially cared for children - noticed and better understood" *(Ģimenes ar īpaši aprūpētajiem bērniem – pamanītas un labāk saprastas),* inform: "We called to see families with seriously ill children and give families the opportunity to receive a special assistant /nanny for their seriously ill child." EUR 139,445.42 were donated, which allowed to provide a special assistant for 48 children in 2016.[251] (every year since 2014)

Bulgaria

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[248] https://www.bsf.lv/lv/ziedot/kam-ziedot/labdaribas-iniciativa-dosim-40-berniem-iespeju-pilnvertigi-dzivot

[249] http://www.autismsberniem.lv/lv/materiali/video-materiali

[250] https://www.piesaiste.lv/2019/11/ipaso-vajadzibu-bernu-vecaki-ludz.html

[251] https://dod.pieci.lv/arhivs/2015

Karin Russell[252] defines five principles we encounter today on social media:

- Cooperation: use of collective intelligence;
- Narrative: characterized by transmedia storytelling (a term used by Henry Jenkins in "Cultural Convergence");
- Entrepreneurship: we see a problem, we take risks to try something new in solving it;
- Creating identity: of individuals, brands, organizations;
- Culture: online culture as well as intercultural communication, imposed by the global nature of online communication.

Some of the key functions of social media in the field of education are:

- Provides opportunities for communication between groups of people. There are mechanisms that allow interest groups to connect electronically - to monitor what they do together and review the actions of others in the group.
- Allows communication between many people.
- If the authors wish, their work can be made available to the rest of the digitalized world. Access is for both experts and beginners and allows them to work together.
- Provides collection and sharing of resources.
- Provides the means to collect materials that are always available.
- Provides cooperation between participants in collecting and indexing information.

It is no longer a question of knowledge limited by historically constructed views of curricula. There are new ways to organize and find information that is of interest to you and the groups with whom you share your interests.

[252] Петков, С. (2011). *Ролята на социалните медии в образованието*. http://ebox.nbu.bg/ssc12/index2.php?id=ne3/05.%20Stoyko%20Petkov.htm&z=%D0%A0%D0%BE%D0%BB%D1%8F%D1%82%D0%B0%20%D0%BD%D0%B0%20%D1%81%D0%BE%D1%86%D0%B8%D0%B0%D0%BB%D0%BD%D0%B8%D1%82%D0%B5%20%D0%BC%D0%B5%D0%B4%D0%B8%D0%B8%20%D0%B2%20%D0%BE%D0%B1%D1%80%D0%B0%D0%B7%D0%BE%D0%B2%D0%B0%D0%BD%D0%B8%D0%B5%D1%82%D0%BE&n=4.%D0%B3%D0%BB.%20%D0%B0%D1%81.%20%D0%B4-%D1%80%20%D0%A1%D1%82%D0%BE%D0%B9%D0%BA%D0%BE%20%D0%9F%D0%B5%D1%82%D0%BA%D0%BE%D0%B2,%20%D0%9D%D0%91%D0%A3

You can choose the information flows from which to be informed and the information to come to you, not you to look for it. In addition, it is possible to track the activity of your colleagues online.[253]

Media literacy is most often associated with the development of competencies in new technologies and includes the skills to properly understand media as the environment, means and content. The complex defined so widely, certainly, includes media management tools - skills for working with information and communication technologies (ICT), skills to use the media for a variety of purposes and in a variety of contexts, search, verification and dissemination skills of information. It also includes the competencies resulting from digital education and digital citizenship, terms often used as equivalent, though bearing quite a few differences.

Based on the whole complexity of the discussed issues the development of media literacy as understanding, mastering and teaching - at different stages and ages - is a difficult process. Therefore, this dissertation includes the basic definitions that build the essence of (digital) media competence, while traced along the path of their natural evolution. Along with this, the theoretical part of the work presents numerous good practices of different countries, collecting and analysing the rich experience underlying what is presented in the practical research - developing a sustainable implementation model of a media literacy training programme. This programme takes into account European Union requirements in the field of digital education and citizenship as key factors for upward individual development, and at the same time a pledge for the effective growth of the member states.

Although it is indisputable that the use of information and communication technologies on a global scale is constantly expanding its scope, both in directions and depth, still in many parts of the world, including Bulgaria, it is not clear enough (or at least not clearly understood) how new technologies help people to be able to communicate better and more humanely, to have the awareness that the assimilation of these technologies should be a means rather than an

[253] Siemens, G., & Tittenberger, P. (2009). *Handbook of emerging technologies for learning.* https://www.academia.edu/2857175/Handbook_of_emerging_technologies_for_learning

end goal. The wealth of information available through the media and technology does not guarantee higher public awareness.

This - at first glance paradox - poses a serious threat to democracy - not from violent attack but from apathy, passivity and habituation to spreading and exposing false information. In other words, technological progress, the entry of the media into more and more aspects of life makes their consumers increasingly vulnerable. Therefore, citizens should have the ability to use and take advantage of the media and not fall prey to fake news, manipulation and delusion, i.e., people need to acquire new competencies, building the nature of media literacy, skills and attitudes that go far beyond traditional literacy.

Our understanding of media literacy is – yes, we see it as a holistic educational approach that needs to be applied in teaching in all subjects; as a means of enabling the use of media and digital technologies as a tool of critical thinking. In other words, as a methodology for understanding, mastering and managing the world of knowledge, in which the media are our guide, methodology for learning and teaching, but also for ascending personal and professional development.

"Social media does not teach us dialogue, because by using them, we very easily avoid getting into any disputes ... Besides, most people use social media not to unite, not to broaden their horizons, but on the contrary, they "break away" from a comfort zone where the only sounds they hear are from the echo of their own voice, and the only things they see are the reflections of their own faces. Social media is very useful - they offer us guaranteed pleasure. They are also a trap. "(Krasimir Valchev, Minister of education and youth, Bulgaria).

Examples:

- www.priobshti.se - https://priobshti.se/category/kampanii/kampaniya-2019

This online portal is created by America for Bulgaria Foundation and Centre for inclusive education Sofia. There teachers, learners and parents may find many national resources, case studies, testimonials, games and resources, which support further implementation of inclusive education in Bulgaria.

Since 2016, every year Inclusion Days have been held under the motto "Let's be better!

Last year in 2019, the focus was on children and the relationships among them. The nationally representative survey of well-being among seventh-graders, which was conducted in 2018, showed us quite disturbing statistics that 44.7% of seventh-graders do not believe that their classmates are good people.

With 2019 campaign they challenged them to be better to each other. The main message of the initiative was to seek the good, because it is all around us, as long as we have eyes to see it.

10 of the most exciting stories were included in a special video on the Aide.BG channel.

As part of the campaign, they organized two competitions for pupils and teachers from all over the country.

- www.ucha.se – https://ucha.se/motiviramse/razlichni-ne-bezrazlichni-rezultati/

The platform consists of over 16,000 video lessons and tests complying with the official school curriculum.

Ucha.se conducted its national campaign "Different, not indifferent" in search of a common language between the generations. For this purpose, we conducted detailed surveys, which raised the topic of the difference in communication between parents and pupils, and how it can be overcome.

The first step was for pupils and parents to share what they believed in and what was important to them.

- https://www.unicef.org/bulgaria/%D1%82%D0%B5%D0%BC%D0%B8/%D0%B4%D0%BE%D1%81%D1%82%D1%8A%D0%BF%D0%BD%D0%BE%D1%81%D1%82-%D0%B8-%D0%BF%D1%80%D0%B8%D0%BE%D0%B1%D1%89%D0%B0%D0%B2%D0%B0%D0%BD%D0%B5

Specialists and resource teachers working with children with disabilities have clearly identified the need for additional online support for both children and teachers and parents. In response to this need, UNICEF, in partnership with the Ministry of Education and the Sofia-City Regional Centre for Inclusive Education, will create an online interactive platform to make education more accessible to children with disabilities and their teachers and families, in close

cooperation with relevant professionals. They will be able to gain knowledge and resources to be even more useful to children. UNICEF will involve professionals, teachers and parents in the development of the platform to best identify children's specific needs.

During this campaign they offered:

- Video teaching materials and resources for children with special educational needs, developed by psychologists, speech therapists and teachers, approved by the Ministry of Education and Science;
- Training tools for professionals and parents in the form of practical materials, online seminars and discussions for parents;
- Opportunity for cooperation between the family and professionals with a focus on the individual learning needs of the child;
- Online consultations and live chat with experts to help teachers, parents and children, as well as useful contact information at the place of residence.

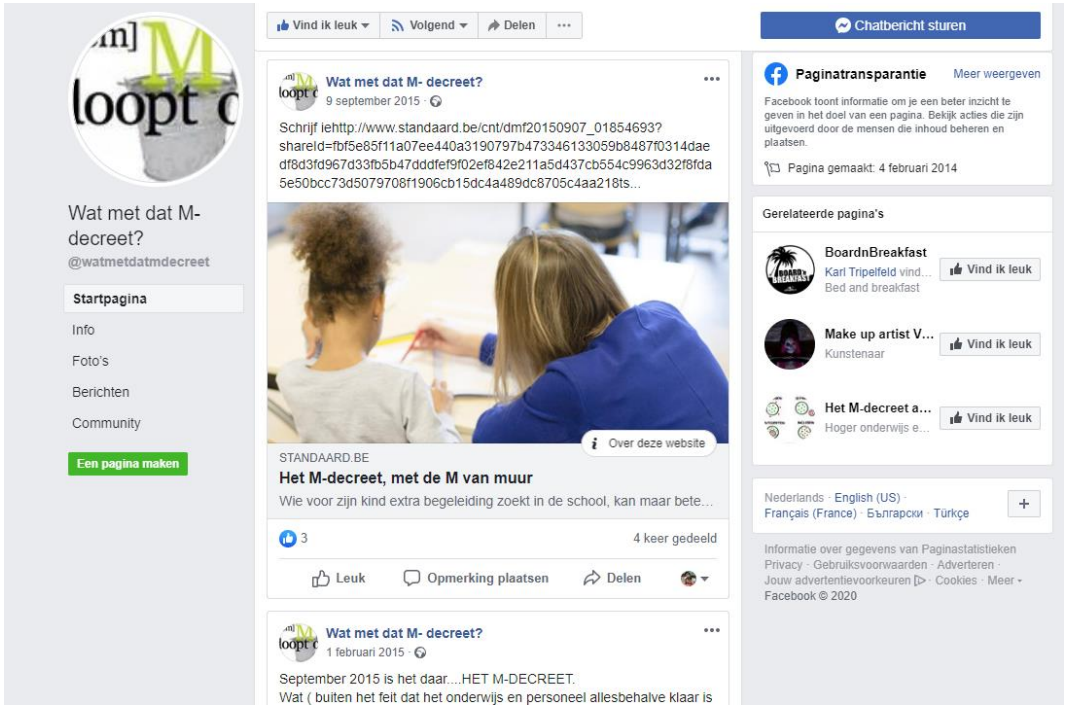
Belgium

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

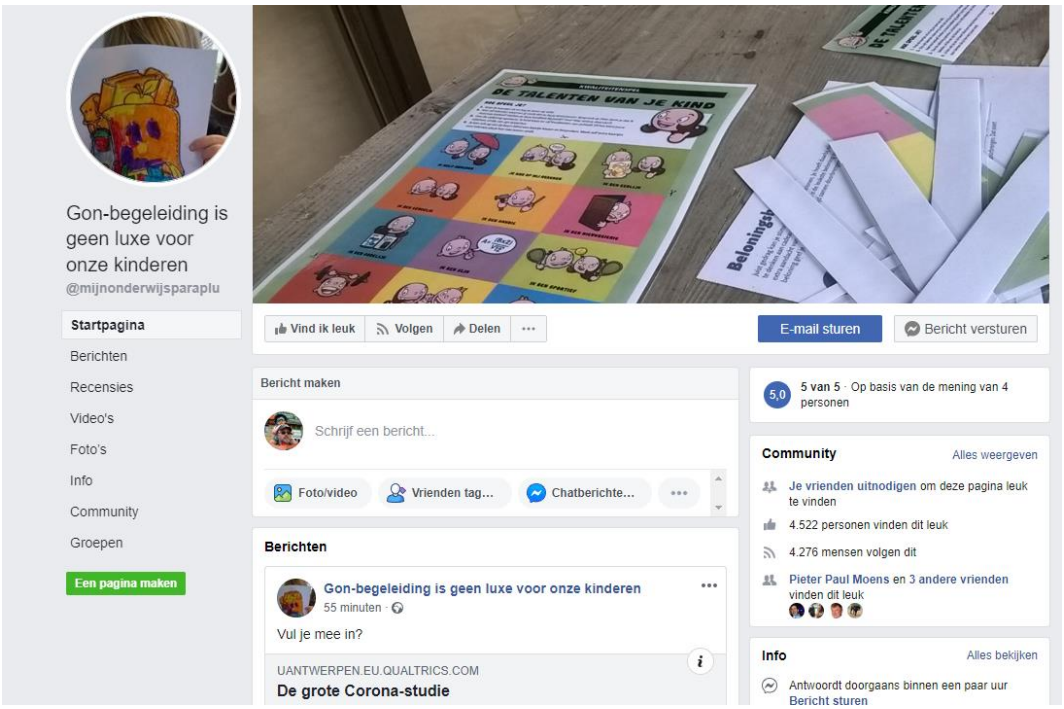
At this moment, any campaign promoting the M-Decree is absent as the decree itself will be revised. However, online, via social media, parents, and teachers have grouped to express their concerns, as well as to support each other.

Below are some of these initiatives.

https://www.facebook.com/mdecreetzorgenomhetkind/



https://www.facebook.com/watmetdatmdecreet/



https://www.facebook.com/mijnonderwijsparaplu

https://www.facebook.com/Het-M-decreet-als-motor-voor-uitmuntend-onderwijs-169912903417060/

https://www.facebook.com/steunpuntdiversiteitenleren

Cyprus

Contributors: Marianna Gregoriou, Angelos Nicolaou and George Milis (EUROCY Innovations Ltd, Cyprus)

In Cyprus, professionals, parents, and non-profit organisations are promoting awareness of inclusive education mainly using social media (Facebook, YouTube, etc.) and other traditional media (radio and TV programmes).

Cypriot Club on Inclusive Education (KOEE)

The Cypriot Club on Inclusive Education has created a Facebook page named “Diversity is the rule, not the exception” to promote and connect people who share the same belief. Almost two thousand people follow and like this page. They use the page to announce different seminars, actions, and events regarding Inclusive Education, which in most cases are open to the public. The last announcements were related to seminars, like: The Inclusion and the smooth transition of children from kindergarten to primary school; Supporting children in the general classroom; The role of the special educator; The role of the special educator in the special unit and Civil Rights to Disability Rights.

More information at:

https://www.facebook.com/%CE%97-%CE%94%CE%B9%CE%B1%CF%86%CE%BF%CF%81%CE%B5%CF%84%CE%B9%CE%BA%CF%8C%CF%84%CE%B7%CF%84%CE%B1-%CE%B1%CF%80%CE%BF%CF%84%CE%B5%CE%BB%CE%B5%CE%AF-%CF%84%CE%BF%CE%BD-%CE%BA%CE%B1%CE%BD%CF%8C%CE%BD%CE%B1-%CE%BA%CE%B1%CE%B9-%CF%8C%CF%87%CE%B9-%CF%84%CE%B7%CE%BD-%CE%B5%CE%BE%CE%B1%CE%AF%CF%81%CE%B5%CF%83%CE%B7-189511614517024/

“I live, so I exist” radio show of the University of Cyprus

“I live, so I exist” is a weekly radio show created and produced by the University of Cyprus students on the radio station of the University of Cyprus (ucyvoice95.2). They invite professionals who speak about disabilities or people who encounter disabilities. One of the latest speakers was a teacher who spoke about “Disability in the school context: Education for the acceptance and overthrow of stereotypes.”

People can listen to the show through radio (95.2) or using the Ucyvoice app (for smartphones) or through the website of the radio station of the University of Cyprus.

More information at: http://www.ucy.ac.cy/ucyvoice/

Inclusive Education in Cyprus

Inclusive Education in Cyprus is a public group created on Facebook by a group of teachers who support the education of all children in general school. “Unified Education is a matter of values and human rights", as Len Barton said. They use this group to announce seminars and provide material, share video links of people who encounter disabilities. One of the latest videos they shared was about a deaf woman who explained how her everyday life went by, what struggles she faced, etc.

More information at: https://www.facebook.com/groups/388693039765/

“Mazi” non-profit organization

“Mazi” (translates to “Together) is a non-profit organization, linking people with disabilities, teachers, and parents, who can share their views regarding inclusive education. They use their Facebook page not only to raise awareness, but also to inform regarding their events, such as the “Autism in the air”, where sixty children with autism, along with their guardians, visited Larnaca Airport to take part in a special 20-minute flight with Cyprus Airways. The aim of this event was to deliver the message that children with autism can experience travelling, but also for professionals to share their stories regarding the coronavirus crisis.

More information at: https://www.facebook.com/syndesmos.mazi/

Road to Inclusive Education

A Facebook public group named “Road to Inclusive Education” aims to promote educational reforms, so that all pupils are included in the general school, regardless of nationality, religion, culture, behavioural and learning issues.

Their specific goals through this group are to push towards:

- Re-training of all teachers in differentiation and inclusion.
- The school principals to ensure that differentiation strategies are provided in all classes to all children, and not just to children with disabilities.
- Creating the position of an inclusion coordinator, who will be responsible for creating behavioural and educational goals, establishing/upgrading the list of children with special needs and behavioural problems, and providing teachers advice on differentiating and involving pupils.
- The school psychologist to evaluate pupils and provide advice to the person in charge.
- The school assistant, who must always been trained regarding special needs, and must also act as a teachers’ advisor regarding the lesson, the behaviour, and the differentiation strategies in the class.
- Only pupils with serious behavioural problems (aggression, self-harm, etc.) be recommended to be placed in special schools.
- Informing parents about inclusive education and its benefits.
- The ministry to provide educational objectives in each subject and not dry knowledge in books to give teachers the freedom to create unique courses and schools.

They are posting videos and other material to promote awareness about inclusive education and what education should look like.

More information at: https://www.facebook.com/groups/831610846979036/permalink

Inclusive education: Current challenges and recommended future directions

European level

Contributor: Karel Van Isacker (PhoenixKM BVBA, Belgium)

According to article 30 of the European Social Charter, the State parties undertake to take measures to promote the effective access of persons who live or risk living in a situation of social exclusion or poverty, as well as their families, to, in particular, education.

European countries follow EU regulations, however, member states are sovereign in their domestic regulations. There is no consensus in the case of inclusive education, with various types of implementation across Europe.

A 2018 publication by the Council of Europe[254] provides a very complete overview of several initiatives taken in various European countries to address inclusive education.

More information may be found through the European Agency for Special Needs and Inclusive Education[255], the online compendium of good practices[256] set up by the European

[254] Study on inclusive education in Europe and in the Republic of Moldova: reasonable accommodation, access to education and non-discrimination, 2018, Council of Europe, https://rm.coe.int/study-on-inclusive-education/1680932033

[255] See in particular European Agency for Special Needs and Inclusive Education, 2017. Raising the Achievement of All Learners in Inclusive Education: Lessons from European Policy and Practice. (A. Kefallinou and V.J. Donnelly, eds.). Odense, Denmark ; See also the Eurydice network which supports and facilitates European cooperation in the field of lifelong learning by providing information on education systems and policies in 38 countries and by producing studies on issues common to European education systems ; https://eacea.ec.europa.eu/national-policies/eurydice/home_en

[256] Delivered by an expert working group on promoting citizenship and common values; https://ec.europa.eu/education/compendium

Commission, and also online collaborative platforms[257] funded by the European Commission bringing education and training professionals together[258].

Country wide challenges

Latvia

Contributor: Dita Nimante (University of Latvia, Latvia)

Although Latvia has made important steps both in developing proper legislation to support inclusive education and to implement good inclusive practices, there are still a number of challenges and issues that need to be addressed:

- lack of data about inclusive education259,
- insufficient systemic approach to the implementation of inclusive education in all levels of education260,
- lack of transparency in the financial provision for inclusive education; the research reveals that special schools are better equipped with methodological and other learning materials, technologies than regular schools. There is an identified need for teacher development programmes, as regular school teachers lack knowledge and support if there is a pupil with special needs included in the classroom261,

[257] The platforms are spaces where education and training professionals can share ideas and experiences, learn new approaches or techniques from their peers and discuss big challenges faced by their colleagues around Europe; https://ec.europa.eu/education/initiatives/collaborative-platforms_en

[258] See also European Network on Inclusive Education and Disability, IncluD-ed (2012), Inclusive education and disability: Good practices from around Europe, P.A.U. Education and Barcelona, available at http://www.includ-ed.eu/sites/default/files/documents/inclusive_education__disability._good_practices_from_around_europe.pdf.

[259] Apvienoto Nāciju Organizācijas Bērnu tiesību komiteja (2016). Noslēguma apsvērumi par Latvijas trešo līdz piekto periodisko ziņojumu [Concluding remarks on Latvia 's third to fifth periodic report]. 29.01.2016. http://www.lm.gov.lv/upload/berns_gimene/crc_c_lva_co_3-5_22983_e_lv_final-2.pdf

[260] Rozenfelde, M. (2016). Skolēnu ar speciālajām vajadzībām iekļaušanas vispārējās izglītības iestādēs atbalsta sistēma. Promocijas darbs. Rīga: LU.

[261] Raščevska, M., Nīmante, D., Umbraško, S., Šūmane, I. Martinsone, B., Žukovska, I. (2017). Pētījums par bērniem ar speciālām vajadzībām sniedzamo atbalsta pakalpojumu izmaksu modeli iekļaujošas izglītības

- insufficient system of identifying children with special needs in general education schools262,
- segregated forms of education for children with special needs, insufficient support for children with special needs in regular schools, lack of human resources (for example, assistants), teachers' insufficient readiness to work with children with special needs263.

Bulgaria

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In recent years, Bulgaria has made efforts to overcome the challenges faced by the education system - discrimination, segregation and marginalization, by returning all children to schools, those with disabilities, special educational needs (SEN), and minority children. Normative and strategic documents containing measures against early school leaving are being developed, as well as issues related to the development of pedagogical staff affecting one of the important focuses in educational policies, namely, inclusive education. The multiple challenges are related to many spheres of life, but the fact is that all the opportunities are used to overcome them because expectations are on the main goal of creating a supportive school environment for children, through appropriate training and education in the process, above all for the benefit of the child, his / her needs, individuality, of its specifics, which we all will not only comply with, but also work to be at the centre of a developing and sustainable trend.

īstenošanas kontekstā. (Projekta līguma Nr. ZD2017/20386, projekta LU reģistrācijas Nr. L-20386-ZR-N-040) LU. http://www.izm.gov.lv/images/izglitiba_visp/IZMiepirkumamLUPPMFgalaparskats08122017.pdf

[262] Raščevska, M., Nīmante, D., Umbraško, S., Šūmane, I. Martinsone, B., Žukovska, I. (2017). Pētījums par bērniem ar speciālām vajadzībām sniedzamo atbalsta pakalpojumu izmaksu modeli iekļaujošas izglītības īstenošanas kontekstā. (Projekta līguma Nr. ZD2017/20386, projekta LU reģistrācijas Nr. L-20386-ZR-N-040) LU. http://www.izm.gov.lv/images/izglitiba_visp/IZMiepirkumamLUPPMFgalaparskats08122017.pdf

[263] Beizītere, I., Grumolte-Lerhe, I., Ziemane, I., Valtenbergs, V. (2020). Iekļaujošā izglītība bērniem ar speciālām vajadzībām Latvijā [Inclusive education for children with special needs in Latvia]. Latvijas Republikas Saeima. https://www.saeima.lv/petijumi/Ieklaujosa_izglitiba_berniem_spec_vajadzibam_Latvija.pdf

The efforts of teachers, principals, educational planners and experts as well as the policy makers and government should be in the sense of working to support the inclusion of every child in quality education and ensuring that:

- Every child is enrolled on time;
- Every child is learning and acquiring learning outcomes;
- Every child is supported by effective and efficient governance.

The major challenges are related to the transformation of the physical environment, skills development in teachers and educators and provision of specialized support by psychologists, speech therapists and special teachers. Development and implementation of violence prevention school protocols that help schools to build an inclusive and safe environment are also very welcomed. The development and implementation should comply with the individual needs of particular pupils and the opportunity to study in forms of education different from daily/individual, combined, independent. The topic of specialists and teachers working in the education system in Bulgaria, the need to acquire new necessary competences, which would increase their sensitivity to differences, is still very little affected.

Belgium - Flanders (see M-Decree section for extensive reporting)

Contributor: Karel Van Isacker (PhoenixKM, Belgium)

The M-decree[264,265,266] has ensured that the right to inclusion and reasonable accommodation has been strengthened and discussed in the educational world. After years of debate on inclusion, the M-decree is a first step in the implementation of the International Convention on

[264] Inclusief onderwijs in vlaanderen een tussentijdse analyse. https://www.unia.be/files/Documenten/Tussentijdse_analyse_inclusief_onderwijs-CRPD.pdf

[265] Naar een Inclusief Onderwijssysteem in België: Inspiratie ne Voorbeelden. (2019). https://www.unia.be/files/Documenten/Publicaties_docs/Naar_een_inclusief_onderwijssysteem_in_Belgi%C3%AB_2019.pdf

[266] Departement Onderwijs en Vorming. (2017). *Meta-evaluatie M-decreet: Synthese van evaluatieve publicaties verschenen sinds de inwerkingtreding van het M-decreet in 2015.* https://onderwijs.vlaanderen.be/sites/default/files/atoms/files/Synthese%20tussentijdse%20evaluatie%20M-decreet.pdf

the Rights of Persons with Disabilities (IVRPH). The dynamics that have been stimulated by this are valuable.

Even though not everything is running smoothly, Flanders has left the standstill mode with the M-decree. The M-decree contains many impulses that promote inclusion: it strengthens the enrolment right and anchors the right to reasonable adjustments in education legislation; it promotes a social view of disability thanks to the introduction of action-oriented working, acting within a care continuum and action-oriented diagnostics; and it tightens supervision of the reference to special education. It becomes important to maintain and strengthen those positive elements.

However, the implementation of the M-decree happens with very variable success in schools and centres for learner guidance (CLBs). The professionalism and willingness to realize inclusion are not equal in size everywhere. Much depends on the extent to which schools invested in basic care and increased care before the M-decree. The minimum quality of care that is the foundation for inclusive education has not been developed in every school as may be expected. This makes it a common practice to choose special education as a solution “in the interest of the child”. Parents' testimonials indicate that this often happens before inclusion had a real chance.

CLBs are in a difficult position if there is no willingness to achieve inclusion and if the quality of inclusive education is not sufficient. However, they were given a crucial role to ensure that the referral to special education runs correctly. It is not easy for CLB employees to deal with that pressure. Sometimes they are asked to issue certificates for a specific type, although this is not possible according to the criteria. Other signals point to the pressure to explain that the care continuum and action-oriented work and action-oriented diagnostics have been followed, while this is not entirely the case. This is followed by pressure to agree to an individually adapted curriculum, which means making a report giving access to special education. Parents often do not experience the CLB as the independent and objective contact point that it should be.

Fortunately, there are also examples of teachers and CLB employees who work together to achieve inclusion and differentiation. Those exceptions should be the rule to achieve the goal of more inclusion and less segregation. The starting point should be that the child has the right to quality inclusive education that meets his needs.

Cross-network cooperation opened up opportunities to build and share expertise on inclusive education. By ending this collaboration in the past years, expertise in inclusive education has been lost. However, schools and CLBs are still struggling with many questions and need expert support. Children and parents must be able to count on the same interpretation of the legislation and the implementation of the legislation must be consistent with this. While parents and children used to be able to use the second-line inclusion network, they now no longer find a point of contact here.

It is not clear at this time what the future support model will look like and whether it will lead to more expertise on inclusion at the guidance level. The task of informing and supporting schools in the implementation of the M-decree currently lies mainly with about 70 competence counsellors. However, there is uncertainty about their further integration within the guidance services and their concrete range of tasks. Will they form a complementary duo with system and subject counsellors within the pedagogical counselling services in the future? Will they merge into the whole and will this only happen after sufficient expertise has been built with inclusion among all pedagogical counsellors?

Practical example: At the end of the school year, the teacher achieves different final objectives. Teachers must raise the bar for each child to a different level so that each child is challenged at his level. However, teachers are not trained well enough to manage this progress smoothly. Measurement is not efficient to reflect the advantages and disadvantages of the process. According to the teachers, the support network is not yet ready. "I lack confidence in the CLB," Verwaest says. 'When I report a problem, someone first comes to observe in the class to see whether there is, indeed, a problem or not. Moreover, the requested help often comes too late. Since this year I have a deaf student in the classroom, who can only hear a computer voice through a cochlear implant. Since September I have been waiting for someone from the support network who will explain to me how the implants work. "[267]

[267] Knack Four years of the M-decree: has inclusive education passed or been abandoned? https://www.knack.be/nieuws/belgie/vier-jaar-m-decreet-is-het-inclusief-onderwijs-geslaagd-of-gebuisd/article-longread-1446217.html

In addition to that the M-Decree increased the question about the salary of the teachers. They argue that their job responsibilities increased but they are being paid the same as before.

Because of the lack of experience, some special needs children face problematic issues in the normal classes. Some of them become excluded in the classroom.

As a result, although, since the M-Decree has taken the effect, the number of pupils in special education has fallen sharply in the first instance (especially concerning special primary education), this trend was not continued for the academic year 2018-2019 and there was even an increase of 375 pupils in special primary education. This increase is especially visible for pupils with autism in type 9.

Cyprus

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Country wide challenges in Inclusive Education

The Cypriot educational system is under reform. Despite most children with special needs are being schooled in mainstream education, in its 2017 report, the UN Committee on the Rights of Persons with Disabilities criticised the 'absence of a clear and implemented concept of inclusive education in mainstream schools in national legislation'. According to the UN, segregated approaches remain common in teachers' and other professionals' attitudes. To address the problem, Cyprus is currently reviewing its policy (EU report for Education and Training Monitor in Cyprus for 2018).[268]

[268] Education and Training Monitor 2018 Cyprus Country reports. https://ec.europa.eu/education/resources-and-tools/document-library/education-and-training-monitor-2018-cyprus-report_en

The educational system is under the process of reforming to achieve better results in inclusive education. In the next paragraphs, we discuss some of the key changes that the educational system is going through to better measure and achieve quality in education.[269]

- The new Appointee System: Since 2017, all teachers who want to be appointed in public schools need to succeed in written examinations (Law 127(I)/2015, The new Appointee system).
- The School Unit Improvement Plan: During the academic year 2017-2018, a plan for allowing school units to operate with more autonomy and set their own objectives, which will be tailored to the needs and demands of pupils, teachers, and the school unit itself was developed (in pilot phase).
- The Reform of Special Education: During the academic year 2019-2020, a project for modernizing special, inclusive, and unified education was initiated. The plan includes a resource analysis, a study visit, and working groups. A draft regulation has been forwarded to the House of Representatives to be voted.
- The new Evaluation System for Teachers. During the academic year 2020-2021, the new evaluation system for teachers that aims to improve the quality of the education system is scheduled to be implemented. Some of the key innovations of the proposed evaluation system include: A mechanism for selecting the most suitable teachers; Provisions for continuous support of teachers in all stages of their career; A new job position for evaluators; Criteria for the numerical score that refer to the value of the teacher in terms of his teaching work; The Director of the School Unit essentially participates in the evaluation of teachers; Continuous improvement of the evaluation criteria, forms and procedures used for the evaluation and evaluation of the Evaluators.
- The new Regulation on the Operation of Public Secondary Schools [Κ.Δ.Π. 60/2017].270 The House of Representatives voted the adoption of the amending Regulations concerning the evaluation of pupils in the four-month period in public

[269] Cyprus. National Reforms in School Education. https://eacea.ec.europa.eu/national-policies/eurydice/cyprus/national-reforms-school-education_en.

[270] The new Regulation on the Operation of Public Secondary Schools [Κ.Δ.Π. 60/2017].

secondary schools on July 27, 2019. The new legislation introduces replacing the existing system of the final (end of the school year) examinations by a system of semester examinations; Introducing a system of remedial teaching, to take place after every written semester examination drawing on the examination results, etc.

Specific challenges for students who need support

In Cyprus, mainstream teachers fall into two broad categories, primary school teachers and special need teachers (SNT). The SNT are mainly employed to provide services in the special unit that is attached to the mainstream school or in special schools. Although education has made steps towards inclusive education, challenges still exist. Some of the most important challenges refer to children's integration in the mainstream class, parents and teacher collaboration and expectation regarding the learner's progress, the need for further professional development for the school staff regarding the utilization of inclusive methodologies and on how to apply assistive technology to support specific learners.

When a pupil is integrated in a mainstream class for a few times a week, the pupil is accompanied by a school assistant (without an education background). This has created many concerns to parents regarding the effectiveness of the inclusion process. As they suggest their children have limited opportunities to participate, since the school assistant usually doesn't have the knowledge to face the struggles that the pupil has to face, or the knowledge on how to support the pupil when they need help to use their communication or other assistive devices, to participate and interact with the teacher and classmates in the integration class.

Usually, the school assistants have low-level qualifications and are low-paid staff, employed to provide support to pupils during the day in numerous ways, such as transferring them from the unit to the integration class, helping them in case they face difficulties and cannot self-nitrite or use the toilet independently, supporting the special need teacher in the unit, being with the pupil in the class. However, it is not a prerequisite for the assistant to have background knowledge on special needs and assistive technology, although it is stated in the requirements that it would be positive if the candidate had experience or knowledge regarding special needs. This creates tension between the parents and school and leads to ineffective inclusion of those children. Sometimes the Ministry of Education encourages parents to find a more suitable person for their child on their own. For children to gain the benefits of inclusion, they need to

be accompanied by the correct personnel that will understand their conditions and will have the knowledge to support them based on their needs.

Conclusion

This handbook provides an in-depth analysis on how a selected number of countries have deployed inclusive education, what good practices have been identified as well as gaps. Overall, the presented multiple initiatives, resources and strategies aim to support and strengthen the implementation of inclusive education practices in mainstream schools. Bringing such good practices together is important in order to share it with other countries. For this reason, a novel ICT platform repository (called HUB) has been developed especially for the project “MyHUB – a one-stop-shop on inclusion practices, tools, resources and methods for the pedagogical staff at formal and non-formal educational institutions”. This database classifies the resources via a wizard-style driven and semantically supported logical framework. The HUB provides the functionality to search for inclusive learning resources based on the criteria such as: disability; educational sector; type of subject; type of resource (method, tool, training material, case study, serious educational games, robotic mediated learning, role play games, etc.). It can serve as the main open educational resource which will facilitate the creation of a Pan-European learning community (represented by the project partners) among different actors – educational institutions, formal and non-formal learning providers, public authorities, NGOs. The HUB is accessible from the Learning Resources item of the top-right menu at www.inclusion-hub.eu, or directly at: elearning.inclusion-hub.eu. The system comprises a rich database of learning resources, developed on top of the widely adopted Open Source Software (OSS) Moodle Learning Management System (www.moodle.org). Depending on the language selected through the project website, the appropriate language version of the Inclusion Hub is presented to the visitor. There is no restricted access to the resources, since the MyHUB project aims at providing all these resources for free to the community of stakeholders, which, in turn, can use the feedback and upscaling mechanisms to participate in the improvement, expansion and sustainability of the portal. In that case the MyHUB will achieve a scaling up of good practices on inclusive learning and their cross-educational transfer and exploitation. The Inclusion HUB portal is available in the project working language, English, as well as in languages such as Latvian, German, Dutch, Greek, and Bulgarian. The tool offers the option to be translated in other languages as well, as part of the sustainability beyond the duration of the MyHUB project. Using feedback mechanism, the users of the hub will be able to: 1) submit comments and suggestions with regards to the already listed resources; 2) submit their own resources to be checked and

published by the maintainers of the tool; 3) describe cases where they used the resources, giving details on the methods used, the results achieved, the effectiveness of the tool, etc.

The MyHUB tool can be beneficial not only for educators who will have the opportunity to gain lots of knowledge by viewing the resources but also for parents of special needs children to be more informed upon initiatives done regarding inclusive education in their country. Also policy makers will have quicker access to practices done in the consortium countries regarding inclusive education and check on the results, this might help them to create partnership with a country that has much better result on the practices for inclusion and transfer this knowledge to help their own country. Additionally, researchers using this platform will have the opportunity to check upon a pool of recent practices held in the consortium countries. This will give them inspiration to initiate more ideas and use this platform to explore the possible partnerships. This platform is just the beginning of exchanging good practices between countries. By continuing adding resources and tools and encouraging also other countries to contribute to the pool of knowledge, it will be getting bigger and bigger. This could be beneficial for the progress of inclusive education not only on the national level but also on the EU level.

About contributors

Latvia

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