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TOWARDS INCLUSIVE EDUCATION IN ARMENIA

AN INCLUSIVE EDUCATION TOOLKIT

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An Inclusive Education Toolkit

by

Erasmus + INCLUSION Project Team from the
American University of Armenia

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We would like to express our sincere gratitude to the Ministry of Education, Science, Sport and Culture of the Republic of Armenia and our colleagues from various educational institutions, NGOs and international organizations, including the National Institute of Education, Yerevan State Pedagogical University, UNICEF Armenia, Bridge of Hope, and Teach for Armenia, for the generous sharing of their research and materials on inclusive education in Armenia. We also thank these entities for their support in the creation of this Toolkit. We hope this Toolkit will serve as a valuable resource for those who work with students in order to ensure their equal access to education and lifelong learning.

CHAPTER 1: TOOLKIT OVERVIEW

This Toolkit provides resources to build teachers' ability to think about ways they can facilitate the inclusion of all children in learning, in the classroom, in the school and in the community, and to include all children in the learning process so that they can grow and to achieve their full potential. It contains activities that may be conducted individually or in collaboration with other teachers, and that best meet the needs of your school. This Toolkit was developed to support the in-service professional development of high school teachers, educational advisors, administrators and specialists in their creation of an inclusive, learning-friendly environment for all students. An inclusive environment educates and advances the abilities of all learners despite their gender, beliefs, or physical, intellectual, social, emotional or other strengths and/or challenges. This applies to gifted learners and young people with diverse needs and those from the border regions with limited access to educational materials and/or technology, from ethnic or cultural minorities, and from disadvantaged groups.

Who is the intended user of the Toolkit? This Toolkit aims at raising the awareness of teachers. There is a special emphasis on those within the school setting with a crucial role in supporting students' smooth transition from high school to university and the students' social integration in the life of their respective communities. It will also be of value to teacher trainers working within the frameworks of training institutions, NGOs, and/or other allied organizations.

How can the content of the Toolkit be applied? This Toolkit contains five sections, some of which reference the theoretical frameworks needed to understand inclusiveness while others contain tools and activities to be applied in creating inclusive classrooms and learning-friendly environments. Some activities provide classroom scenarios and ask the reader to reflect on practices in their classrooms in respect to creating inclusive-learning environments, while others will

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challenge readers to improve and enhance their own skills for working within a diverse classroom. There are additional resources, including activities both for students and for teachers, as well as video links addressing the practical side of inclusiveness. Finally, there is a list of references for further reading and appendices with practical applications.

After reviewing this Toolkit, the reader will understand:

- The definition of "an inclusive education" and the students impacted;
- The barriers that exclude rather than include these students and strategies to overcome these barriers;
- The challenges that compromise students' abilities to pursue higher education;
- Various tools to administer a self-analysis of inclusive practices within the school setting;
- What inclusive schools and classrooms look like and how to create one;
- The definition of "differentiated instruction" and strategies for its implementation;
- Inclusive technologies that assure a productive and meaningful teaching/learning environment for students of diverse needs;
- The key elements of inclusive assessment;
- Strategies for creating an inclusive educational environment through interactive and informative videos;
- Platforms and forums as resources to foster the implementation and development of inclusive education; and
- The implementation of benchmarking tools within classroom and schools.

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CHAPTER 2: KEY CONCEPTS

2.1. Terms and Definitions

One of the biggest challenges in developing this Toolkit was the choice of the appropriate, inclusive and user-friendly terms as most often the identical concept is described with multiple terms across the literature. Most importantly, it is imperative that terms used should be void of any discriminatory associations: for example, *young people with various/mixed abilities* is preferred over *disabled students*. The explanations of concepts and presentation of the material is designed to be user-friendly for teachers, educators and the public at large for easy access. Please note the following:

- *Students with diverse backgrounds and different abilities* is the most frequently used term in this Toolkit and refers to those young people in schools who usually get excluded from the high school and higher educational systems due to their physical, intellectual, social, cultural or other characteristics;
- *Learning environment* is used to describe typical high school classrooms with a minimum of twenty students; it can also describe any formal and non-formal environment (e.g. educational, cultural centers), where young people gain the necessary knowledge and skills for their daily life;
- *Inclusive education* or *inclusive learning* refers to creating equal opportunities and access to education in a formal setting for all learners using various elements of Universal Design for Learning (UDL)
- *Universal Design for Learning (UDL)* references the design of products, environments, programs and services for use by all people, to the greatest extent possible, without the need for adaptation or specialized design;
- *Universal design* can apply to a range of devices, activities, techniques, and teaching/learning approaches for various groups of persons with different abilities as needed ("Article 9 - Accessibility | United Nations Enable," 2019);

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- *Learning-friendly* means placing the student and his/her needs at the center of the learning process so that all learners get their chance to participate in his/her own learning. It also means recognizing the involvement of other participants (e.g. community leaders, high school administration, parents, friends/peers), in the learning process who serve to empower, motivate and support the advancement of differentiated teaching approaches and assistive technologies in targeting the needs of ALL learners;
- *Classroom* refers to the actual place, such as a classroom in public schools, where young people, aged 14-18, come together to learn and prepare for becoming students in higher educational institutions;
- *Student*, *learner* or *young people* interchangeably refer to anyone who is participating in formal learning in a high school;
- *Students/learners with mixed/different abilities* include those young people with physical, sensory, or intellectual disabilities who are oftentimes excluded from learning in high schools; they could have been born with a physical or psychological disability or acquired the impairment due to illness or an accident; and
- *Impairment* suggests that the learner experiences difficulty in seeing, hearing, or mobility, and that their learning style and pace may be impacted as a result.

Note: For a more expansive list of frequently encountered terms, please see "Special Education Terms and Acronyms" (2019), here in English: https://cutt.ly/JtTGPz

2.2. Inclusive Education: Definitions

Inclusive education means education in which all children are welcome in the same classroom and provided with high-quality instruction and the support tools needed to succeed. In practice, this requires helping schools and school systems to adapt to the needs [of] each individual child, rather than trying to 'fix the child in order to fit the system.' It also involves convincing parents, teachers, and other students that children with disabilities should be accepted and allowed to attend school alongside their peers.
(Handicap International, n.d.)

If the right to education for all is to become a reality, we must ensure that all learners have access to quality education that meets basic learning needs and enriches lives. (...) The UNESCO Convention against Discrimination in Education (1960) and other international human rights treaties prohibit any exclusion from or limitation to educational opportunities on the bases of socially ascribed or perceived differences, such as sex, ethnic origin, language, religion, nationality, social origin, economic condition, ability, etc. Education is not simply about making schools available for those who are already able to access them. It is about being proactive in identifying the barriers and obstacles learners encounter in attempting to access opportunities for quality education, as well as in removing those barriers and obstacles that lead to exclusion.
(UNESCO, n.d.)

Terms such as *inclusive education*, *inclusion*, and *fair access* to education have been used in a variety of contexts with different implications. Typically, the understanding of inclusion refers to a fair, equitable, and friendly learning environment where all students have the opportunity to attend schools within age-appropriate, general classes, and where all students have the right to attend and support to learn; within this framework and support from parents, peers, and

teachers, they will learn, participate in different aspect of school life and reach their full potential (Anapiosyan, Hayrapetyan, & Hovsepyan, 2014; Booth & Ainscow, 2002). This necessitates that the curriculum, programs, activities, and school facilities must be designed appropriately to satisfy all students' needs.

UNESCO Convention against Discrimination in Education (1960) was one of the foundational international documents for promoting inclusion in education. This convention advocates the right of education for all regardless of their differences - race, color, sex, language, religion, national or social origin, political views, economic conditions or birth ("Convention against Discrimination in Education, 1960," 2003). The principle of inclusive education was adopted at the Salamanca World Conference on Special Needs Education, held in Spain in 1994, and was restated at the World Education Forum in Dakar, Senegal in 2000. Within this context, Armenia adopted the principle of inclusive education as part of its political agenda.

Every child has the right to an education. That includes *young people with various/mixed abilities*. The CRPD goes further to stress that inclusive education is a fundamental human right for every child regardless of their challenges. An inclusive education system is one that accommodates all students whatever their abilities or requirements, and at all levels: pre-school, primary, secondary, tertiary, vocational and life-long learning. Inclusion is seen as a process of:
- Addressing and responding to the diversity of needs of learners through enabling participation in learning, and social activities on the school and community levels; and
- Removing barriers within educational institutions through the implementation of accommodations and the introduction of appropriate structures to enable each learner to achieve the maximum benefit from his/her attendance at school.

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This concept of inclusion promotes the active participation of the learner in his/her own learning process as the primary charge rather than just his/her mere presence in the classroom or the institution's provision of accommodations. The goal, therefore, is *inclusion*, not merely *integration* with the focus on "taking part" not just "being there".

A truly inclusive environment requires all stakeholders to:
- value all students and staff equally;
- restructure the policies and practices in high schools so that they are sensitive to the diversity of all learners;
- increase the participation of learners in, and reduce their exclusion from the curricula and culture of the high school education system;
- lower barriers to learning and participation for all learners, not only those who are categorized as *having special educational needs*;
- view the difference between learners as opportunities to reassess curricula to better support learning for all students;
- acknowledge the right of learners to an education in their local school;
- emphasize the role of high schools in building community, developing values, and increasing the educational level of all citizens;
- foster mutually sustaining relationships between schools and communities; and
- recognize that inclusion in education is one aspect of inclusion in society (Middlemas, Spanjers, & Rubiano, 2018).

To do this, schools must be adapted to meet every child's needs. This means having an in-depth knowledge of the students and adapting learning techniques and buildings accordingly. Moreover, it is important to change the mindset and attitudes of teachers, students and the entire educational community. The basic principle is that we

are all capable of learning and at the highest levels given the right tools/opportunity/support

The Convention on the Rights of Persons with Different Abilities ("Article 2 - Definitions | United Nations Enable," 2019) defines *different ability* as an evolving and open concept, which is characterized by the lack of inclusion and accessibility from within that society and not by the impairments of the person. This concept includes not only people with physical, psychological and learning disability but also those of the under-represented groups: students coming from rural areas and border regions, students from military service, students with children, and *vulnerable populations* as defined by the government.

'Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments, which in interaction with various barriers hinder their full participation in society on an equal basis with others' ("Article 1 - Purpose | United Nations Enable," 2019, p. 1).

While *disability* is often equated with *impairment*, there is in fact a distinction between these terms. The definition within the CRPD ("Article 2 - Definitions | United Nations Enable," 2019) considers *different ability* not simply as a health condition or impairment in isolation, but as the interaction of a person's impairment with the barriers in their environment that together leads to a situation in which the person's full and equal participation in society is hindered.

According to Article 2 of Definitions of United Nations Enable (2019), "discrimination on the basis of disability" means any distinction, exclusion or restriction on the basis of *disability* which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil

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or any other field. It includes all forms of discrimination, including denial of reasonable accommodation.

2.3. Armenian National Guidelines and Legislation

In 1992, Armenia adopted the Law on the Rights of Children in 1996, and UNICEF started to actively advocate for the introduction of inclusive education in the country (Hunt, 2009). It was in 1998, when the first school in Yerevan, School No. 27 after D. Demirchiyan, decided to accept the challenge to provide equal access and opportunities in education for children with different abilities. Since then, the number of inclusive schools has expanded to include those in other regions of Armenia as well, reaching 1,500 children enrolled in 63 inclusive schools by 2010.

The government of Armenia has aimed at mainstreaming all students and making all schools, primary and secondary, inclusive by 2025; consequently, the number of special schools will be drastically reduced (Out of School Children in Seven Communities of Shirak Province, Armenia, 2017). The process of making schools *inclusive* was to be implemented in stages, province-by-province. Since the initiative's inception, 248 out of the 1354 general education schools in Armenia have become *inclusive*. According to the Ministry of Education and Science for the 2016-2017 academic year, 6,700 students with special educational needs (SEN) were enrolled and mainstreamed in general education schools. The Law of the Republic of Armenia on General Education defines a person with special educational needs as "a person having difficulties related to the instruction, including physical and mental peculiarities of development, who needs special conditions for education for mastering basic programs of general education."

Legal Frameworks for Reform in Special Education in Armenia
- Law on Education, 1999
- Statutory Paper for Inclusive Preschool Curriculum, 2000

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- Strategy for the Improvement of the Educational Boarding Institutions System, 2002
- Law on Education of Persons in Need of Special Education Conditions, 2005
- Inclusive Education Concept Paper, 2005
- Law of the Republic of Armenia on General Education, amended by the Parliament of Armenia 2014; accordingly, all schools of the Republic of Armenia should become inclusive by August 2025; this law recognizes the rights of all students to learn with their peers in general classrooms.

2.4 Applications in the Classroom and School

The use of respectful words is not only important in class and in school but also in the community at large. It promotes the development of self-confidence and self-esteem, and allows the child to feel included in class and in the community. This also denotes the respect of human rights. Positive language helps the child to gain the right status by promoting a positive atmosphere, which is necessary for the acquisition of knowledge. For this to happen, both teachers and peers should banish negative-sounding words, including those that equate a disability to an illness. They must avoid nicknames and call all children by their own names. They need to avoid all words that may hurt, and adopt only positive or neutral words. The inclusive teacher strives to find the language that conveys respect to everyone and includes every child in the class. The aim is to provide an environment free from discrimination, frustration and anxiety. (For more see: "TESSA Inclusive Education Toolkit: A guide to the education and training of teachers in inclusive education", 2016)

The language used to talk about disabilities is ever changing. It is the teacher's responsibility to be attentive to change and to adapt accordingly. Children need to understand and talk about their differences and similarities and must consider them as a natural part of

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society. As a teacher you have an important role to play in helping children to realize that their opinions, perceptions and emotions can be different but that they all are important parts of society. Diversity in society is enriching. As a teacher you must model this by adopting a fair attitude towards all children and organize activities that allow them to work together, interact and build their learning together. You need to encourage inclusive social behaviors such as mutual appreciation and respect, listening, tolerance and empathy.

2.5. Case Study

Activity: Read the following case study and complete the activities following. (Adapted from "TESSA Inclusive Education Toolkit: A guide to the education and training of teachers in inclusive education", 2016)

> In a school in Yerevan, a young student named Karine has a light mental disorder reflected in a deficiency of attention. In class and in school, peers call her *debil*. Karine is really upset because of the nickname. At the beginning, she tried her best to avoid being called so, but the bullying continued and it got so bad that she even was assaulted by her classmates. She resigned herself to this subservient place rather than struggle eternally. As a result, Karine became detached and lost her desire to study. As a result, she neither participated in class activities nor answered teachers' questions because she was afraid that even the slightest mistakes would result in others deriding her. She would hear remarks such as: "One and a half hour can only say stupid things." Mr. Karapetyan, the teacher, could not understand why Karine would not participate in class even though her course work was of good quality.

Ask teachers to work in pairs and brainstorm on finding ways to help Karine to gain her self-confidence; the, devise and distribute an action plan - sample solution - to the teachers.

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Mr. Karapetyan talked with Karine and then organized an activity for the whole class. He asked all the students to write a harsh word and a kind word on two different pieces of paper. He then collected the papers and turned them face down on the table so that the children could not see what was written on them. Karine's classmates were made to choose one without looking at it and this nickname was pinned on their backs. Those who had harsh words were mocked by their classmates. Mr. Karapetyan asked the students how they felt when they were called by these names and mocked by their peers. He then asked those who got nice words how they felt. He concluded the lesson by asking students to think how Karine must have felt when they called her 'debil'. He motivated the young people to present their apologies to Karine and self-assess the language they used to address Karine and their peers.

2.6. Promoting an Inclusive Classroom

According to Thacker (Opp-Beckman, & Klinghammer, 2006, p. 71) there are twelve attitudes a good teacher shows that help promote an environment conducive to learning:

- Setting ground rules well in advance;
- Providing well-planned activities;
- Showing respect for each student;
- Providing non-threatening activities;
- Being flexible;
- Accepting individual differences;
- Exhibiting a positive attitude;
- Modelling thinking skills;
- Acknowledging every response;
- Allowing students to be active participants;
- Creating experiences that will ensure success at least in part for each students; and
- Using a wide variety of teaching modalities.

The organization of the physical space and the atmosphere in the classroom/school play a crucial role in facilitating learning. To create a classroom/school safe from physical or emotional danger you, as a teacher, need to ask yourself the following questions:

- Do my school and class enable children to move without danger?
- What are the actions I can take to enable all children to enjoy an accessible and risk-free environment?

The following explanations provide more about these key elements of *impairment* and *barriers* and how they interact:

> An impairment is a problem with a bodily function or structure due to genetic factors, disease, illness or injury. Impairment may be present from birth (congenital) or acquired later in life. Factors that can lead to impairment include violence, conflict and poverty. Impairment can cause a difference in the ability to undertake daily activities or functions, such as seeing, hearing, moving,

Based on the CRPD's definition ("Article 2 - Definitions | United Nations Enable," 2019), *impairments* can be categorized into broad categories based on the affected domain of functioning:

- *Physical impairment* is often the most easily identifiable; it is manifested in difficulty in the performance of bodily functions involving: movement and mobility (such as walking, climbing stairs, standing, or maintaining or changing position); body movements (such as reaching, crouching or kneeling); and using upper limbs (including gripping or using fingers to grasp or handle objects); persons with physical impairments may use assistive devices including walking sticks, crutches or wheelchairs;
- *Sensory impairment* includes vision, hearing and communication challenges;
- *Vision impairment* includes total blindness and compromised or low vision;

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- *Hearing impairment* includes deafness and various levels of hearing loss, even though the latter may include some residual hearing; persons with *hearing impairment* may communicate through spoken language or use sign language and/or lip-reading to communicate;
- *Communication impairment* includes difficulty with speaking or speaking with various levels of speech impairments that may require adapted communication techniques;
- *Intellectual impairment* includes the limited ability to understand new or complex information and to learn and apply new skills; this may impact three domains that determine how well an individual copes with everyday tasks: (1) the conceptual domain (skills in language, reading, writing, math, reasoning, knowledge and memory); (2) the social domain (empathy, social judgment, interpersonal communication skills, the ability to make and retain friendships, and similar capacities); and (3) the practical domain (self-management in areas such as personal care, job responsibilities, money management, recreation and organizing tasks); and
- *Mental and psychosocial disability* includes *impairments* related to mental health conditions, including chronic severe mental disorders or psychosocial distress; people in this category may experience difficulties in relating to others; distressed moods or confused thoughts; an inability to take care of themselves; and difficulties related to behavior, language and intellectual activities. These challenges, in turn, may impact their social skills and participation.

Despite the number of benefits of inclusive education, there are numerous obstacles/barriers to its implementation as well (for the recent results of SWOT analysis in Armenia see Appendix 1). Below is a list of some of the greatest barriers hindering the full participation of persons with disabilities (CDC, 2018):

- *Financial barriers*: Adequate funding is vital for the implementation of inclusive practices, and yet, it is one of the biggest challenges. It can apply both to the public sector (schools) and the domestic sector (families) as manifested in the lack of adequate facilities, qualified and trained teachers, and/or other staff members, insufficient or absence of appropriate educational materials, lack of opportunity to attend schools due to transportation costs (especially in rural areas), and the lack of parental support.

- *Attitudinal barriers*: One of the most significant barrier to effective participation and inclusion of persons with disabilities is engrained, cultural, negative attitudes and stereotypes. Traditional societies often see persons with *disabilities* as incapable, dependent or weak; on the contrary, society should view them as inspiring, heroic or superhuman as they have overcome great obstacles. Unfortunately, the traditional perspective perpetuates their segregation and exclusion from the community. A typical example of *attitudinal barriers* in the educational context is a school director who believes that persons with intellectual impairments are disruptive and incapable of learning deliberately makes these students feel unwelcome thereby creating a barrier for persons with disabilities to attend school and learn.

- *Religious and ethnic barriers:* Although this may or may not apply to the Armenian context, these barriers should be considered. While religious and ethnic minorities, such as the Yazidis, Assyrians, Muslims, and Malakans, have equal access to Armenian public education, including elementary and high schools, it is important to consider the impact of cultural difference on the social dynamics within the classroom and school.

- *Physical barriers* fall into two categories:
  - *Structural barriers* are obstacles in natural or man-made environments that prevent access or hinder persons with disabilities from moving around independently. Examples of structural barriers in the educational context include: steps

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at the entrance, pathways without tactile guide markers, narrow doorways and squat-style toilets; these create barriers for persons with physical impairment and persons with vision impairment. Such barriers also create challenges for high school staff members with disabilities to effectively undertake their work.

o *Communication barriers* may be experienced by persons with difficulties in seeing, hearing, speaking, reading, writing and understanding. These persons often communicate in diverse ways to persons without *disabilities,* and if adaptations are not made, they may be unable to convey information. Examples of *communication barriers* in the educational context include: presentation/learning material in a small, unclear font, without pictures or diagrams and without raised lettering or Braille; a workshop using spoken communications without providing for sign language interpretation; high service counters and rostrums creating a barrier for wheelchair users.

o *Institutional barriers* are often created when there is no binding framework for *inclusion* or when existing regulations, such as those that require programs and activities to be inclusive and accessible to persons with *disabilities* and make "reasonable accommodation" (see below) for their specific needs, are poorly enforced. *Institutional barriers* are difficult to identify because they are often entrenched within social and cultural norms. Examples of *institutional barriers* include a school that does not identify and respond to children's diverse needs by, for instance, developing individual education plans, providing classroom assistants or other supports, thusly creating barriers for children with *disabilities* to attend school and learn.

Following is a narrative on identifying institutional barriers. (Adapted from "TESSA Inclusive Education Toolkit: A guide to the education and training of teachers in inclusive education", 2016).

Part 1: Identifying barriers

Mrs Khachatryan is the principal. This academic year, the school is welcoming children with disabilities: a child in a wheelchair who also has a lack of visual acuity and a child with a hearing impairment. The principal checks her school with her team of five teachers to identify what needs to be modified. The first item on the agenda is adapting the physical space within the school and the classroom.

Mrs Khachatryan: We will walk around our school to plan the modifications needed to welcome the two children with disabilities who are going to join us. Let's first think about the infrastructure in our institution. What do you think we should adapt in the infrastructures?

Mr Ghazaryan: I believe that we can work with students to level the ground within the school to allow the child to move freely in the wheelchair.

Ms Tevosyan: Why should other students do the work?

Mr Goyunyan: It is a way to involve others and to show them that they can contribute to the successful integration of their new peer.

Mrs Ordyan: I believe that the door to the classroom is too narrow for the child to enter with his wheelchair.

Mrs Khachatryan: We will take the necessary measures and call the builder to make the door bigger.

Mr Matevosyan: We should also think about ramps. We should make a ramp from the door to the class and even from the class to the toilet.

Mrs Ordyan: I also think that the toilets are not adapted for the child's needs and he will not be able to use them. Additionally, the class is not light enough. We could change the color of the walls and blackboard to help the child with a visual disability. We could paint the walls into blue and white, change a section of the roof into a translucent pane to lighten up the classroom. We could also paint the blackboard in green and use yellow chalk, which will be more visible than white chalk on a

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black board.

Mrs Khachatryan: To conclude, first, call the builders to make the ramps. We have to avoid having steep ramps that could be dangerous not only for the disabled child but also for all children. Second, we will have adequate toilets installed and take measures to lighten the classroom.

Part 2: Welcoming students with specific needs

Mrs Khachatryan: Mrs Laban, this child will be in your classroom. Have you thought about what you could do for him? Remember he has also an impaired vision so he cannot see properly.

Mrs Ordyan: I was thinking of placing him in a position where he can see the blackboard better and I will make sure that he can move around in class without being injured.

Mr Matevosyan: We should also write clearly and bigger; read aloud what is written on the blackboard and prepare all the materials accordingly: big print, enlarged pictures, and so forth.

Mrs Khachatryan: Thank you everyone for your ideas. The other students can also help. There is a lot to do but remember that creating an environment more accessible for children with disabilities will be also beneficial for all students. They will all enjoy a more comfortable environment that will be easier to use. Now let's consider the student with a hearing impairment. Mr. Matevosyan, how will you facilitate her integration into your classroom, as she will be joining your class? Everyone else is welcome to contribute, of course! I will ask her to sit where she has her back to the light, not far from the blackboard and in such a way that she can see my face and the other students' faces. When we talk in the class, we'll have to articulate clearly and at a slower pace. I also intend to place her near a good, friendly student who will help her if needed. This activity will allow teachers to establish a list of strategies to make classrooms more accessible to different categories of children with specific needs.

All students need their teachers to show that they really care for them. When the teacher makes a conscious effort to know each student, it encourages him or her to do better, to integrate better and to participate more in class. To establish a peaceful, safe and comfortable environment, teachers have to be proactive. For example, if teachers notice displays of aggressive behaviours by students, they may address these by using games and activities that develop empathy and encourage good social behaviours. The class will then be able formalize a shared and agreed set of internal rules.

Tip #1: Place students' desks in groups

Arrange desks in small groups (2–4 desks per group) so that all students have the opportunity for cooperative learning, collaboration, and discussion. As well, place the teacher's desk on the periphery of the classroom. Teachers in an inclusive class rarely sit down during their day and don't need their desks getting in the way! In some cases, students sit at tables rather than desks. (*Designing a Classroom for Inclusive Learning,* 2011). This will be challenge in most Armenian schools as desks/tables are often anchored to the floor without the possibility of being moved.

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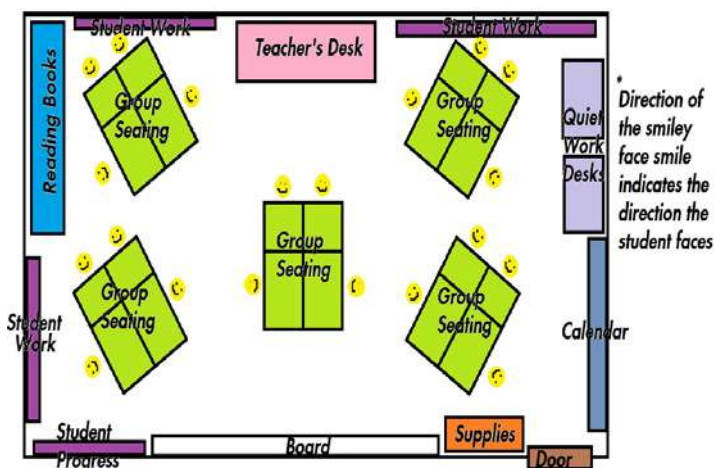
Tip #2: Provide centers

Centers appeal to various learning styles, but they must be accessible and open. As well, the materials and manipulatives at each center must be appropriate and stored where all students can reach them. Placing books on a high shelf is limiting for a shorter student or one who is in a wheelchair.

Tip #3: Create wide aisles

Ensuring the sufficiency of space is one of the important factors in providing an inclusive classroom. While you can't control the furniture within your classroom, you may have control over how to arrange it. (Again, many classrooms in Armenia do not have this flexibility.) For example, according to the UK standards, the space should be three times more for a student with a wheelchair or other mobility aids than for others. Also, additional space may be used for storing mobility aids and equipment. Furniture layout inside the classroom should maintain enough circulation space between the tables. Teachers need to make sure to create wide spaces between the aisles ("Annual Report 2012 | The National Disability Authority").

Tip #4: Classroom decor

An inclusive classroom needs to be decorated in a way that does not create distraction and sensory overload. Too many bright colors, posters, clutter, and furniture can easily become sources of distraction. Also clear clutter, stabilize furniture, tape down wires and cables, and place signs and symbols around the room that point out exit and entry ways in case of an emergency (*Designing a Classroom for Inclusive Learning,* 2011).

Tip #5: Practical areas and laboratories

Aside from circulation spaces, labs should include height-adjustable tables/benches and accessible equipment, e.g. proper lever handles for students with limited dexterity and clear visual markings. All routes

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should be clear of cables. Screens should be glare-free for students with visual impairments ("Annual Report 2012 | The National Disability Authority").

Tip #6: Easy access

School facilities should be accessible for vehicles and wheelchairs. Level thresholds are important for all entrances. Where there are multiple storeys or levels in a building, ramps and/or elevators should also be provided. All routes should be free of obstructions. These standards should include all evacuation routes. Glass doors or walls should be clearly visible for people with visual impairments ("Annual Report 2012 | The National Disability Authority," 2012).

Activity: Complete the following tasks in your group considering the six tips above

- Discuss with your teacher colleagues which of these tips could be implemented in your school
- Discuss specific steps for this implementation, e.g. meeting with the school principal, finding donors or sponsoring Construction Company, etc.
- Share your ideas with other teachers.

2.7. Reasonable Accommodations

Reasonable accommodation means making necessary, reasonable and appropriate modifications or adjustments that do not impose undue burden to ensure that a person with disability is able to exercise a certain right on an equal basis with others. Implementing *reasonable accommodations* is a requirement set out in the ("Article 9 - Accessibility | United Nations Enable," 2019).

Students with disabilities must be provided with *reasonable accommodation* to help them gain an education on an equal basis with others. This can include adaptations or services which will help overcome discrimination. Deciding whether an accommodation is reasonable involves an assessment of whether it is relevant and

effective, in relation to how much it will cost. The type of accommodations needed must always be decided with the student, and where appropriate, parents or caregivers. Accommodations might include, for example:

- Changing the location of a class;
- Providing different forms of in-class communication;
- Enlarging print, providing materials and/or subjects in sign, or in an alternative format;
- Providing students with a note-taker, or a language interpreter;
- Allowing students to use assistive technology in learning and assessment situations;
- Allowing a student more time;
- Reducing levels of background noise and ensuring sensitivity to sensory overload;
- Providing alternative evaluation methods or replacing an element of curriculum by an alternative element;
- Providing sign-language interpretation for workshops;
- Making information and messages available in alternative formats (e.g. texts in Braille, large print, easy-to-read, audio, etc.);
- Providing screen-reading software for persons with vision impairments in a school; and
- Taking the needs of persons with disabilities into consideration when designing, building or renovating a building, in order to ensure the rooms, labs, toilets and other facilities are accessible.

CHAPTER 3: BENCHMARKING TOOL

This section provides six different benchmarks, which will help teachers and educational administrators to review the way their schools provide support for a wide range of students who need additional accommodations to ensure a high quality learning experience. This tool has been adapted from: http://inclusionerasmus.org/   (Middlemas et al., 2018)

The six benchmarking tools are:
- Benchmark 1: Our school context
- Benchmark 2: School regulations and guidelines
- Benchmark 3: Quality assurance and quality enhancement
- Benchmark 4: Facilities, buildings and accommodation
- Benchmark 5: Learning and teaching
- Benchmark 6: Additional support and advice

Inclusion Benchmarking Tools are designed to encourage conversations between teachers, administrators and/or students within the school, which can result in policy, procedural or other changes to be implemented within the next months or academic year. All stakeholders need to be involved in the conversation, such as a representative sampling of staff and students with various backgrounds and skills sets, in order to get a realistic and comprehensive picture of the situation from various perspectives. Some changes may be relatively simple to implement; others will take much longer due to procedural, fiscal or staffing challenges. The exercise should be repeated annually to identify new challenges and take an account of the school's progress.

Each benchmark statement has a score range from 1 to 4. The score should be totaled at the bottom of each page. Once completed and reviewed, priorities can be identified and the planning process can start.

3.1. Benchmark 1: Our School Context

Please tick the statements that most closely describe your school

1.1. Our school's vision and/or mission statement supports and promotes the Social Dimension (SD), and is actively shared with faculty, staff and students
1) No current vision/mission statement
2) We have a vision/mission statement but no recognition of the SD
3) Our vision/mission statement has some recognition of the SD
4) Our vision/mission statement has a clear recognition of the SD, and it is publicly available

1.2. We have prepared and published our strategic goals/strategic plan for the next 3-5 years
1) No current strategic plan
2) Strategic plan but no recognition of SD
3) Strategic plan has some recognition of SD
4) Strategic plan has a clear recognition of SD, and it is publicly available

1.3. We collect necessary student data regarding inclusion and/or diversity issues
1) No data collection at all
2) No data collection regarding inclusion/diversity issues
3) Some data collection regarding inclusion/diversity issues
4) We have a comprehensive data collection system regarding inclusion/diversity issues

1.4. We have identified leadership and committee responsibilities for issues related to the SD
1) No leadership responsibilities for inclusion, diversity or SD issues
2) Not well established leadership responsibilities
3) Well defined leadership responsibilities but still evolving
4) Well defined leadership responsibilities; there is a staff member dedicated to SD issues

1.5. Teachers have clear responsibilities for diversity and inclusion

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1) No teachers hold responsibility for inclusion, diversity and SD strategies
2) We have not yet fully established teacher responsibilities in this area
3) Some responsibilities have been identified
4) Well defined teacher responsibilities, with regular representation at key committees

1.6. We organize regular staff induction and/or training opportunities regarding SD issues
1) Not available
2) Limited
3) Moderate
4) There are substantial opportunities; we provide full support and training on SD for school staff

1.7. We have good links with local organizations representing groups addressing the needs of disabled or minority groups
1) Not at the moment
2) Limited links
3) Moderate links
4) Substantial links

Benchmarking Tool # 1: Score =   /28

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3.2. Benchmark 2: School Regulations and Guidelines

Please tick the statements that most closely describe your school

2.1. We have established clear systems for transition planning (high school to university/vocational training/employment) for students under SD
1) None for any students
2) No specific systems for students under SD in place
3) Some systems for students under SD in place
4) Well established transition planning available for students under SD needs

2.2. Faculty and staff are aware of national guidelines for implementing SD
1) Very few staff are aware of national policies/guidelines relating to the implementation of the SD
2) Some staff are aware
3) Most staff are aware
4) All our staff are aware of national policies/guidelines and understand how to implement them

2.3. Faculty and staff are aware of school policies for implementing SD
1) Very few staff are aware of school's policies/guidelines relating to the implementation of the SD
2) Some staff are aware
3) Most staff are aware
4) All our staff are aware of the school's policies/guidelines and understand their implementation

2.4. Our school has guidelines for how the social dimension (SD) should be implemented by teachers/staff both at course curriculum and school levels.
1) We do not yet have any school policies/guidelines relating to the implementation of the SD
2) We have a few school policies/guidelines relating to the implementation of the SD
3) We have some school policies that relate to implementation of the SD

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4) We have extensive school policies that relate to implementation of the SD

2.5. Our school has an outreach program to inform students and their parents what is available at our school (such as online or printed informational resources for the public)
1) There is no outreach strategy in place
2) There is a limited outreach strategy in place
3) There is some outreach with prospective students and their families, but the number of   informational resources is limited
4) There is extensive outreach with prospective students and their families, and all necessary information is available for dissemination

2.6. Faculty and staff are supportive of inclusive education
1) None of them supports the idea
2) Some staff/faculty is supportive
3) Most of the staff/faculty is supportive
4) All our staff is supportive and understands the importance and value of an inclusive educational environment

Benchmarking Tool # 2: Score=   /24

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3.3.   Benchmark 3: Quality Assurance and Quality

Enhancement

Please tick the statements that most closely describe your school

3.1. We have an evaluation system to assess progress and support
decision-making relating to action items for the Social Dimension (SD)
1) We do not yet have an evaluation system
2) We are just starting to set up such a system
3) We have an evaluation system, but it is not fully used by all
staff/teachers
4) We have a fully established evaluation system to assure quality in all
areas of the school

3.2. We have data that supports decision-making concerning
modalities of instruction and classroom management concerning SD
(e.g. peer review of teacher performance/curriculum design etc.)
1) We don't have data
2) We are now thinking of ways to collect relevant data
3) We have data but it is very limited
4) We regularly collect relevant data and use it to inform future
practice

3.3. We include students' views into account when structuring
curriculum and classes
1) No, we have our annual academic plan established by the Ministry
    of Education and Science
2) Yes, we take students' views into account but to a very limited
    extent
3) We take students' views into account but not fully
4) We always take the views of students into account

3.4. We have a set of quality indicators for learning and teaching
activities, which take the needs of under-represented groups of
students into account
1) We don't take students from under-represented groups into account
2) We take students from under-represented groups into account, but
only minimally

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3) We take students from under-represented groups into account, but not fully
4) We always take the needs of students from under-represented groups into account, and the data is shared with faculty and staff

3.5. Quality issues or concerns regarding under-represented groups are reported to all levels of the school
1) There are very few (or no) formal reporting systems at the moment
2) We are just starting to set up reporting systems for quality assurance issues impacting under-represented groups
3) We have some systems in place, but we still need to develop this area
4) We regularly review and report quality assurance issues, which is shared with faculty and staff

3.6. Current and new teachers receive regular training in quality assurance issues relating to the needs of under-represented groups of students
1) We do not have any regular trainings available
2) We are just starting to set up quality assurance trainings
3) There are some limited trainings in this area
4) All teachers have regular trainings where quality assurance issues are highlighted

Benchmarking Tool #3 : Score =   /24

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3.4.Benchmark 4: Facilities, Buildings and Accommodation

Please tick the statements that most closely describe your school

4.1. Most of our classrooms and school facilities are accessible to all students, including those with a physical or sensory disability; the staff is aware in advance of students' specific needs.
1) We do not have any accessible classroom
2) A few of our classrooms have been made accessible
3) Some are easily accessible, but we still have some work to do
4) All or most of our classrooms are accessible to all students

4.2. We have explored strategies to make our school/classrooms accessible
1) No, we are not sure how to accomplish this
2) We have just started to look for strategies to make our school/classrooms accessible
3) We have explored strategies but not fully
4) We have explored strategies and identified those appropriate for implementation

4.3. We make good use of technology and software to support learning at our school, especially for under-represented groups such as students with special needs
1) We do not actively support the use of technology/software at the moment
2) There are some teachers who are aware of the possibilities of technology enhanced learning
3) Most of our teachers have started to use technology to support teaching
4) All teachers are aware of a range of accessible learning technologies and have begun to implement those technologies to enhance the student experience

4.4. There is a range of meal options for students on special diets as per religious or medical needs
1) No catering available
2) No customized food options
3) There is a limited range of customized food options

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4) There is a broad range of food options to suit a range of dietary needs

4.5. We have disabled toilets at various locations on site
1) Not available
2) Very limited availability
3) Available in some areas
4) We have several fully accessible toilets, plus washing areas for students who need them

4.6. We have a medical center/medical support available for students who require monitoring/assistance (e.g. students with epilepsy or a chronic medical condition)
1) No medical support is available
2) Available, but very limited hours
3) We are developing our medical support facilities
4) We have a medical center/nurse, and the students make good use of this facility

Benchmarking Tool #4: Score =   /24

3.5 Benchmark 5: Learning and Teaching

Please tick the statements that most closely describe your school

5.1. Our curriculum design and delivery guidelines consider the learning needs of under-represented groups; there is a designated teacher in each discipline with this responsibility
1) Not at the moment; we do not have any specific guidelines for curriculum design
2) Some students' needs are taken into account (e.g. international or disabled students)
3) The needs of most students are understood by the majority of our teachers
4) The learning needs of all our students are fully understood, and all teachers are aware of the need to make each lessons or teaching resources as inclusive and accessible as possible

5.2. Teachers are aware of a range of inclusive pedagogical approaches, and use these effectively when planning their lessons (e.g. use of PowerPoint; provision of clear handouts; ensuring all students have advance notice of reading lists; use of different discussion techniques)
1) Teachers are not aware
2) Teachers have limited awareness of different approaches
3) Teachers have a moderate awareness
4) All teachers use a range of different pedagogical approaches to ensure maximum student learning

5.3. Students are regularly consulted about effectiveness of modalities of instruction and assessment
1) Students are rarely consulted about these issues
2) It depends on individual teacher awareness
3) In place for some under-represented groups
4) In place for all under-represented groups; students regularly have the opportunity to voice their concerns over the teaching and assessment formats with teachers

5.4. Our teachers have high expectations towards students from under-represented groups
1) This has not been discussed on the school-level

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2) Teachers have quite low expectations of some groups
3) Teachers have the same expectations for all students
4) Teachers have high expectations for all students, and enable each student to achieve their best

5.5. We arrange additional language and writing tutorials and support sessions for non-native speakers or students who need additional attention (e.g. students with academic difficulties; students with dyslexia)
1) There is no additional language/writing support
2) There is only a very limited provision
3) There is some provision
4) All students have full access to academic support as needed

5.6. Educational trips and visits organized by faculty are affordable/accessible for all students
1) We do not usually organize trips/visits
2) Available, but not affordable to most students
3) Available and affordable, but not accessible for all students
4) Trips / visits are affordable and accessible for all students; there is funding and additional support
5)

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3.6   Benchmark 6: Additional Support and Advice

Please tick the statements that most closely describe your school

6.1. Our school has a student support team, which
collaborates/evaluates the learning path of students with special needs
1)   We do not have a student support team
2)   We are just creating a student support team
3)   We have a student support team, but it does not function
     effectively
4)   We have a fully established a well-functioning student support
     team

6.2. Our school has financial resources available for purchasing
specialized equipment or software
1)   We have no financial resources available for students with special
     needs
2)   We are just identifying resources for such purchases
3)   We have financial resources available for assistive technologies,
     but little
4)   We have purchased assistive technologies for use by teachers and
     students with special needs

6.3. Our school provides advice on bursaries/grants available to under-
represented groups
1)   We do not have such information on grants to under-represented
     groups
2)   We are planning to implement such a service in our school
3)   We do receive information on bursaries-grants, but very little
4)   We received information on grants so that teachers, staff and
     students are aware of resources available

6.4. There is support staff (e.g. psychologist, speech therapist,
counselor, social worker) to provide services for students
1)   We don't have support staff
2)   We are just implementing support staff for students
3)   Some student support staff is available and provides services to
     students
4)   Our school has a well-established student support staff system

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6.5. We regularly evaluate and review our student support systems
1) We do not yet have a robust evaluation system in place
2) We are just starting to set up such a system
3) We have an evaluation system in place, but not all our staff/teachers understand its importance
4) We regularly evaluate our services to assure quality

6.6. There are procedural guidelines to ensure that evaluation data contributes to improve student support
1) We do not yet have procedures
2) We are just starting to set up such procedures
3) We have a system in place, but it is not fully implemented
4) We regularly evaluate our guidelines to assure quality for students from under-represented groups; these evaluations are available to teachers and key staff

Benchmarking Tool # 6: Score =   /24

CHAPTER 4: DESIGNING AN INCLUSIVE PEDAGOGY

In most cases allowing children with disabilities to attend schools and be present at lessons is perceived as inclusion, whereas the latter supposes full participation of a child in the education process and not just physical presence in a classroom (UNICEF, 2012).

Due to the recent redefinition of the concept of the *inclusive classroom*, it looks very different from classrooms of decades past. Inclusive practices and needs have totally changed expectations for modalities of instruction, curriculum development and classroom design. In an inclusive classroom, teachers create activities and lessons adaptable to the distinct ability levels of the students continually guided by the following questions:

- How do I make the classroom a learner-friendly environment?
- How do I incorporate technological tools in the classroom?
- How do I engage learners via these technological tools or other modalities of instruction?

Research has revealed several models of educational delivery reflecting an array of approaches in providing high quality education which ensures educational opportunities for all students and which increases their chances of continuing their education past high school ("For All Kids," 2019; *Inclusive STEM High School Design: 10 Critical Components*, 2019).

You must be aware of the injustice that you could display against students when you do not have an inclusive attitude in your class. Your positive attitude towards all learners including those with disabilities and those with special educational needs should be obvious, as should your efforts to include all learners in the teaching–learning process.

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This can only be done if you take steps to create a positive climate in the classroom.

A positive climate is important for all students' learning. This is aided not only by the mutual respect among students and between the students and you (the teacher), but also by the fact that you as a teacher have high expectations from all learners (in terms of behaviour, results, participation, etc.). You encourage them to meet your expectations by your warm and engaging attitude and you strive to make the class enjoyable both by its physical appearance and by the amicable atmosphere that stimulates learning.

Inclusive education means that the education provided is accessible to all. This is not limited to access to the classroom/school. It is often the case that another barrier to learning for some children is the language used. Not understanding what is being said is a cause of exclusion in the learning process.

When you address children, it is important to use words and structures that are easily accessible to them, regardless of their ability level. However, in all disciplines, you will need to use technical words: a fault line in geography, osmosis in science, a bisecting line in mathematics to name a few. All these technical terms will be new words for students, words that they will need to understand, learn and memorise.

- Posters on the walls of the classroom with the new words to be learned and practised, and illustrations explaining them
- Signs placed on walls with new words and definitions
- Activities for learners to practise using these new words, such as games and puzzles.

The following helpful hints on inclusive pedagogy is adapted from "TESSA Inclusive Education Toolkit: A guide to the education and training of teachers in inclusive education", 2016, http://www.tessafrica.net and from the Open University's "Open,

Learn, Create: an Introduction to Inclusive Education", see www.open.edu.

4.1. Lesson Planning

Lesson Planning is a crucial activity to prepare for the inclusion of all children in the teaching–learning process. It is during the lesson planning that teachers lay the foundation for allowing everyone to have access to the necessary skills, knowledge and know-how. It will also facilitate opportunities for participative learning and classroom life.

It often occurs that the portion of the subject or theme selected for one lesson is complex, because it is composed of several elements, or because it asks for new competencies or knowledge, but also because children acquire new competencies or knowledge in differently sized bites. Therefore, it is necessary to break down their teaching–learning into small steps that are well articulated and logically organised. This will allow all students to attain the objectives of the lesson.

After deciding upon the lesson's objectives and all the elements to include, it is time to consider the activities that will best allow students to take part in the learning process and achieve these objectives. The activities concerned are activities students will do in the lessons and that will engage their mind actively. It is important to remember that everyone has his or her preferred ways of learning:

- Visual learners learn best by visualising the information; a picture or a diagram is academically more meaningful.
- Auditory learners learn best by listening; they may take very few notes and are able to remember conversations and oral presentations.
- Kinaesthetic learners learn by moving, touching or doing; they prefer applied learning and hands-on tasks.

In your class, you have children with different learning styles. You may also have children with disabilities and you will need to select activities that will allow them to learn. Students with visual impairments are likely to respond well to auditory activities. Those that are hyperactive will have done well in activities for kinaesthetic learners that will enable them to move, and the techniques adapted for visual learning will be useful for deaf or partially hearing students. Thus, when preparing lessons, it is crucial to plan a range of learning activities that will cover the needs of different learners by catering for the range of learning styles, not only will you take into consideration your students' different learning styles, but you will also ensure that students develop a wide range of competencies.

When selecting and preparing learning resources, whether they are customized or collected from the classroom, school or community, teachers should analyse them from different perspectives. If in a class, there are one or more children with disabilities; do these resources enable all of the children to learn? Are they multi-sensory so that everyone may benefit from them? If these children are blind, will they be able to touch, smell and listen? If they are deaf, will they be able to visualise the information, smell or feel? The impact reaches beyond children with disabilities as diverse resources convey that everyone can access the same opportunities: boys learn home economics, girls do science experiments, children in wheelchairs play basketball, etc.

4.2. Differentiation

Differentiation is a process that involves the adaptation of teaching-learning strategies to the needs of all learners: 'The purpose of education for all children is the same; the goals are the same. But the help that individual children need in progressing towards them will be different' (Warnock Report, in Dickinson and Wright, 1993, p. 2). Differentiation is therefore a process whereby teachers recognise the individual students' needs in their classroom, and plan accordingly to

meet those needs, to give each student access to learning according to his/her own capability and to account for differences in comprehension, abilities, current knowledge and what he/she can achieve.

This process does not happen automatically: it has to be well planned. Differentiation means that the teacher(s) will do something intentionally. This is related to lesson planning to meet the individual needs of each learner. It is based on understanding individual differences, as well as the value placed on the learning of each student.

You should be aware that children acquire new knowledge, skills and understanding in different ways and at a different pace. The class lesson should be presented in such a way that the learner has access to the new teaching aids in order to progress. The lesson's outcomes are obviously the students' products; as students vary greatly, so will their products demonstrating learning. Outcomes are not an aspect that can be differentiated by teachers when they plan and prepare the lessons. Differentiation by outcomes is not something teachers can control or predict.

4.3. Using Explaining and Demonstrating to Assist Learning

Explaining is the giving of understanding to another. Demonstrations are ways of assisting the explanation process by using artefacts or other methods to show students something so that they understand it better. How explaining is done is just as important as having good subject knowledge. Just giving out information is not enough. Demonstrating an idea or a concept in a practical way often assists student learning. This can be done by:

- Using pictures, diagrams, models, specimens and artefacts to show what you mean;
- Getting students themselves to examine the subject of your explanation;

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- Enabling all students to see clearly what you are explaining (e.g. via a demonstration); and
- Asking for feedback from the students about their understanding of what they have experienced.

Always remember that to avoid student confusion in your explanations and demonstrations, you need to fully involve them to check that they understand what you are saying and doing. Ensure the following in the classroom:

- Ask them questions to find out what they already know and understand;
- Find out about misconceptions that are holding them back and which need to be 'unlearned';
- Use small groups to exchange ideas and understanding about the topic you are explaining or demonstrating;
- Ask them to explain to you and to each other what they understand about the current topic; and
- Be prepared to use different words with different students to make your explanations clearer.

4.4. Working with Large Classes

Here are ideas for teaching large classes:

- Plan ahead and prepare thoroughly; problems can be magnified in large classes, but they can also be dealt with effectively.
- Maximize classroom space by removing unnecessary furniture, and use space outside the classroom for learning and activities. Ask your students for suggestions on arranging the classroom in a comfortable way.
- Do everything possible to get to know your students. A positive relationship with your students means they will be more willing to actively participate in class.
- Give opportunities for students to individually introduce themselves to the class.

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- Move around the class when talking – this engages students, and it can reduce the physical and social distance between you and your students.
- Be natural and personal in class and outside of it – be yourself!
- Tell your students you will be available before and after class to answer any questions they might have.
- Keep track of frequently asked questions or common mistakes. Use these to develop lessons and help students avoid making mistakes.
- Be aware of the class. If you notice or even feel that there is something wrong, ask a student what is going on. Invite small groups of students to visit you to discuss important class issues. When necessary, involve students and use positive discipline to deal with misbehaviour.
- To check the content of your lessons and the knowledge and skills of your students, to identify those students that need your special attention.
- Recognize the attention span of students is limited: 15 minutes of lecture followed by an activity and then additional lecture if needed is ideal. Determine what information can be delivered in forms other than lecture and develop these methods. For instance, group work, role play, student presentations, reading outside class, and in-class writing can be excellent ways to vary classroom routine and stimulate learning.
- Develop a formal lesson plan to organize your teaching; this is a way to monitor whether or not your students are understanding what is taught; and a chance for you to think about what to do next and how to improve your teaching. In your plan, identify what topic is to be taught, the learning objectives, teaching methods, classroom arrangement, main activities, resources and assessment methods.
- Explain to your students exactly how and why you are teaching in a certain way. For example, 'This is why I give quizzes at the end of class (to check on your understanding.'

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- Develop a visual display of the day's topics and learning objectives (such as a list on the chalkboard). This will make following the flow of the class much easier for you and your students. Plan for a clear beginning, middle and end to the class.
- Use 'prompts' to develop students' question and answer skills, and count to ten after you ask a question to give time for the student(s) to answer.
- Give assignments that really assess whether or not your students are learning what you are teaching. Can they explain the process they used to solve a problem, and can they apply what they are learning to everyday life? Give clear and thorough instructions for all assignments.
- Develop a portfolio system or other ways to keep track of student performance – both successes and areas needing improvement – and to identify those students who require extra attention.
- Develop exams that really tell you if your students have learned and can apply what you have taught them, not just what they remember.
- Give prompt feedback on assignments and exams. Involve your students in the grading process to give faster feedback.
- Reflect on your teaching. Discuss with your colleagues and students how your class can be improved. Visit the classes of colleagues who are also teaching many students, and exchange ideas and materials. Above all, view the challenge of teaching a large class as an opportunity, not a problem.

4.5. Acknowledging and Promoting Students' Personal Expression

Since Inclusion focuses on ways all students can be equally empowered within the classroom and equally express feelings and present points of view, as a teacher, you have an important role to play; you will need to support your students as they develop these skills. It is important that all students feel included in the classroom and educational

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community, regardless of their state of health, home circumstances or any disability. You must ensure that all students feel free to express their ideas and feelings.

Questioning to Promote Thinking

Good questioning is an important skill for you, the teacher, to acquire. Questioning can be used to find out what your students know and assess their progress, but can also be used to inspire them, help extend their thinking skills and develop enquiring minds. Questions you can ask can be divided into two broad categories:

- Lower level questions, which involve the recall of facts and knowledge previously taught, often involving closed questions (a yes or no answer).
- Higher level questions, which ask the student to use bits of information previously learned to form an answer or to support an answer in a logical manner. Higher level questions are often more open-ended.

There are two issues with both higher and lower level questions. These are:

- Encouraging students to respond; and
- Improving the quality of their responses.

Many teachers allow just one second before answering the question themselves or asking another question. This leaves no time for students to think what they might say. By waiting between three and six seconds before saying anything gives students time to think of answers. Research indicates that this has a positive effect on students' achievement. By waiting after posing a question there is an increase in:

- The length of student responses;
- The number of students offering responses;
- The frequency of student questions;
- The number of responses from less capable students; and

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- The positive interactions between students.

The way incorrect responses are handled will determine whether students continue to respond to the teacher's questions. 'That's wrong', 'You are stupid' or other humiliation or punishment often stops students volunteering any more answers from fear of further embarrassment or ridicule. Instead, if you can pick out parts of the answers that are correct and ask them in a supportive way to think a bit more about their answer you may encourage more active participation. This helps your students to learn from their mistakes in a way that negative behavior towards them does not. The following phrase shows how you might handle an incorrect answer in a more supportive way:

> *'You were right about evaporation forming clouds, but I think we need to explore a bit more about what you said about rain. Can anyone else help us?'*

Another strategy is debating. This enables students to listen to the views of others and think critically. When you choose topics for debate in your classroom, make sure you choose topics that are important to your students so they will really want to express their points of view. To ensure that such debating activities are properly implemented you will need to introduce your students to the rules and procedures for debate. (Adapted from:

http://www.triviumpursuit.com/speech_debate/what_is_debate.htm)

- Explanation of a motion: In parliament, or on important committees, when the members are making decisions, someone may introduce a motion to debate. A motion is a statement about something that needs to be done or discussed. A debate explores all sides of the argument. For example, if a member of parliament stands up and says: 'I move that capital punishment be abolished,' this idea is discussed formally and a decision is reached, which results in the desired action being carried out or not. Students either support the motion or oppose the motion. A debate is a

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contest, or, perhaps, like a game, where two or more speakers present their arguments intent on persuading one another.

- Why debate?: By preparing for and participating in debates, students learn to find and use information to support their arguments. They also learn how to present their ideas clearly and persuasively. Through debating, they learn to understand views that are different from their own because, when debating, they may have to argue a case that they don't fully agree with, and they have to become very familiar with the view of the opposing team.

- Preparation: Good debaters are very well prepared. The debate you conduct in your class may be an informal one, but could build towards a situation where your students debate seriously in competitions. Before constructing a speech, debaters collect as much information on the topic as possible, from libraries, newspapers, magazines and discussion with people. They think of all the points in support of the motion, and against the motion. In other words, they become familiar with the opposition's case as well as their own. They prepare themselves for all possible questions that might be asked by the opposition, and all possible challenges they might offer. Good debaters structure their arguments very persuasively. They listen to other people debating, so that they learn the art and the skill of debating. They join debating societies, and debate as often as possible.

- The process: 1) there are two teams, each consisting of two or three speakers. One team (the affirmative) supports the motion, and the other (the negative) opposes the motion; 2) there is a chairperson, who controls the proceedings; 3) the speeches and speaking time are divided equally between the two teams; 4) each speaker makes a speech they have prepared to argue their case. The sides speak in turn, starting with the proposer of the motion (affirmative, negative, affirmative, negative). Each speaker has a specified amount of time to speak (e.g. three minutes or five minutes); 5) the debate can be opened to the floor, with speakers standing up to offer points supporting or opposing the motion.

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Each speaker from the floor is allowed a specified amount of time (e.g. one minute or three minutes); and 6) each team may then speak in 'rebuttal', after a short period has been allowed for the teams to consult. This means that they have a chance to argue against points raised by the opposition. Each team may have one rebuttal speech each, or more. The first rebuttal speech is made by the negative side and the final rebuttal speech is made by the affirmative.

- Important rules: 1) the team supporting the motion must not shift its point of view, and the same goes for the opposition, who must oppose the motion completely (whatever their private opinions may be); 2) if a speaker makes a statement, they must be able to provide evidence or reasons to support the statement (e.g. facts presented in a debate must be accurate, speakers may not bring up new points in a rebuttal speech, points of order and points of information); 3) members of the house (anyone involved in the debate) may interrupt a speaker by raising their hands and indicating that they have a 'point of order' (this means that they wish to point out that one of the rules of debate is being broken e.g. the speaker is speaking overtime, or does not have evidence to support his or her point); and 4) members may also raise their hands with a 'point of information' (a question or some information they have to offer).

- Judging: the winning team in a debate is usually decided on the basis of the quality of the debating, by a judge, or judges, however, it may also be decided by a vote.

Case Study: Debate

After Gayane and her students had written about being 'left out', the class discussed specific children who were not in school for some reason. Some of these children were disabled, some had only one parent, were orphaned, children of veterans or did not come to school because they were too poor to buy a uniform. Gayane introduced the idea of debating to the class, and presented the motion: 'This class

moves that all "out-of-school" youngsters, isolated because of barriers to learning, should be brought to school.' She grouped the students into groups of six, and asked half the groups to discuss points in favor of the motion and half to discuss points against. Then she gave them a framework for preparing their speeches. Each group drafted a speech, either in favor or against the motion, and chose a speaker from among their number. The debate was held the next day. The motion was carried, and students started making contact with out-of-school children, and working with their teacher and principal to bring them back to school. Gayane realized that the debate had provided an excellent opportunity for students to develop and express their points of view and for addressing an important community issue

A few months after Gayane first introduced the idea of inclusion to her students, there were two new students in her class. One was deaf, and the other had only one arm. She and her students were gradually learning to include them in their class, to communicate with them, and to support them without making them feel too 'different'. She now suggested the students write a letter to Ministry on the topic of the importance of including all students in school.

Students liked this idea and brainstormed what they could say. They produced an outline for the letter.

- Theme: Schools should make efforts to bring in 'out-of-school' youngsters.
- Reasons.
- Ways to counter the possible arguments against.
- Our experience.
- Successes and challenges.
- Repeat theme.

Gayane gave students guidance on the kinds of phrases to use when presenting the argument.

Assessment questions:

- Does the letter start by stating the case, or argument, clearly?

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- Does it present arguments supporting this statement?
- Does it include some information that relates it to local circumstances or events and gives it a human touch?
- Does it present the case once more, conclusively, in the last paragraph?
- Is it well structured, divided into paragraphs, each with a main idea?
- Is it accurate, with no grammar, spelling or punctuation errors?

You may need to do some editing before sending the letter, but try to keep the students' words. Think what your students have learned from turning debate arguments into a letter. Critical thinking and creative problem-solving skills take more time and practice, but the most uncertain aspect is influencing values and attitudes.

Case Study: Letter Writing

4.6. Universal Design for Learning

Universal Design for Learning (UDL) is an important educational framework for the improvement of flexible learning environments with the aim of accommodating individual learning differences. When considering UDL, teachers prepare the learning environment with a flexibility of means, methods and materials that will allow them to address the needs of every student. As each individual's learning style is unique, UDL proposes curricula with the following:

- Multiple means of representations to give learners different ways of obtaining knowledge and information;
- Multiple means of expressions to provide the environment for the learners to demonstrate their knowledge; and
- Multiple means of engagements to touch upon each learner's interests, and further motivate them in the learning process and challenge them reasonably.

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Though UDL is aimed at specific students within a general classroom, the practice shows that special need learners benefit the most from the UDL guidelines. Moreover, UDL principles can be used to implement new, experimental teaching approaches when a student is struggling and lagging behind his/her learning. The word *universal* may seem problematic; it may appear to refer to one design of learning for all students within the classroom, but actually it is the opposite; it champions a multidimensional and flexible teaching/learning approach that meets multiple needs simultaneously. It is a multidimensional tool to increase access to knowledge by reducing cognitive, physical, intellectual and organizational barriers in learning (Morin, 2019) . And it addresses four essential aspects of lesson planning: 1) methods, 2) materials, 3) instructional goals, and 4) assessments.

The first principle of UDL invites teachers to use "multiple means of representation." With this in mind, we ask, How do you share content with your students through lectures, readings, discussions, graphic representations, videos, and hands-on artistic models? Teachers have multiple ways to share information. While each of these may be valuable, using a variety can ensure that content is accessible to everyone.

Example 1

Activity: *Read the following example of a teacher using multiple means of presentation:*

> Tenth grade Geography teacher, Anahit Ayvazyan, provides content by showing a video that has captions, thus accommodating students who have auditory and visual challenges. The addition of captions improves access for a variety of students, those with hearing impairments, those learning a new language, and those working to improve reading or spelling skills. Using different media to present information and engage students is important in inclusive

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classrooms.

Now think of one of your classes and think of some alternative ways how you could present the same content to your students to accommodate to students' different learning styles and needs. Then, share your examples in a small group.

Example 2

The second principle of UDL calls for teachers to use "multiple means of action and expression", how do students show their understanding of the lesson. Some students prefer writing as their best outlet and means of expression, while others would perform better with presenting orally, acting out in a play or creating a work of art. When we provide students with the opportunity to express their knowledge through multiple media, we learn what works best for them individually and discover strengths not identified before.

Activity: *Read the following example of a teacher using multiple means of presentation:*

After learning about UDL, Syuzanna Karapetyan, a 9th grade biology teacher, decided that she would provide more options and student choice for how they will present projects. In doing so, she alleviated anxiety and saw more students achieving a higher level of performance.

Think of the same class you identified in the previous activity. Now, come up with a few action items that will be more inclusive of the

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diverse expressive needs of your students with different learning styles. Share your ideas in a small group

Example 3

The third principle of UDL encourages teachers to use *multiple means of engagement* which can require some creative approaches to foster genuine connections of students to the lesson.

Activity: *Read the following example of a teacher trying to connect her lessons to her students' experiences*

> While a diversity of materials and media (theater, art, video, and computer software) can engage students, connecting lessons to what students care about is also essential to foster engagement. Armine Vardanyan, a high school teacher of literature, admits that she invests a lot of time in asking students about their families, weekends, and interests. "Not only does this build our relationships; it also gives me great ideas for connecting content to what students care about. It's never a waste of time and students love coming to my classroom." Invest time in talking to students about their life experience and offer choices and flexibility whenever possible.

Again, considering the same class, suggest a few strategies for how you could engage your students in different ways. Share your thoughts in a small group.

Example 4

No matter how homogeneous or diverse a classroom may be every student benefits when inclusion and diversity is a priority. When curriculum depicts characters, languages and cultures from a diversity of backgrounds, students learn understanding, empathy, and acceptance. A sense of connection is created when students with a wide range of cultural experiences see themselves reflected positively

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in the classroom materials and teachings. Ultimately, they see that their teacher values students from diverse cultures and backgrounds.

Activity: Read the following.

Tamara Baghdasaryan, an alumna of V. Brusov Linguistic University, spoke to her school's librarian about providing more books about disability and diversity in the school and classroom libraries. She said "Talking about disability and looking at disability as an issue of diversity will help our school community and hopefully, others to see that diversity is 'normal'."

In respect to your own class, think of examples how you can reflect diversity in your content. Share your ideas with your colleague(s).

Grappling with issues such as bias, inequality, conflict and social justice can be difficult for teachers. Brainstorming with other teachers about ways to address concerns can help everyone navigate such topics appropriate to the contexts of our communities. When these issues are thoughtfully and respectfully addressed and taught, students develop lifelong tools for succeeding in a diverse world. Students develop essential critical thinking skills proven to counter prejudice and create empathy.

Brainstorming, Group Work and Mind Mapping in the Classroom

Brainstorming is a group activity that generates as many ideas as possible on a specific issue or problem then decides which idea(s) offers the best solution. It involves creative thinking by the group to think of new ideas to address the issue or problem they are faced with. Brainstorming helps students to:

- Understand a new topic;
- Generate different ways to solve a problem;
- Be excited by a new concept or idea; and
- Feel involved in a group activity that reaches agreement.

Before starting a session, you need to identify a clear issue or problem. This can range from a simple word like 'energy' and what it means to the group, or something like 'How can we develop our school environment?' To set up a good brainstorm, it is essential to have a word, question or problem that the group is likely to respond to. In very large classes, questions can be different for different groups. Groups themselves should be as varied as possible in terms of gender and ability.

There needs to be a large sheet of paper that all can see in a group of between six and eight students. The ideas of the group need to be recorded as the session progresses so that everyone knows what has been said and can build on or add to earlier ideas. Every idea must be written down, however unusual. The following rules are to be clear to students:

- Everyone in the group must be involved.
- No one criticizes anyone else's ideas or suggestions.
- Unusual and innovative ideas are welcomed.
- Lots of different ideas are needed.
- Everyone needs to work quickly. Brainstorming is a fast and furious activity.

The teacher's role initially is to encourage discussion, involvement and the recording of ideas. When students begin to struggle for ideas, or time is up, get the group (or groups) to select their best three ideas and say why they have chosen these. In conclusion:

- Summarize for the class what they have done well; and
- Ask students what they found useful about their activity, and what they learned in the brainstorming that they didn't realize before?

Group Work

Group work can be very effective way of motivating students to learn by encouraging them to think, communicate, exchange ideas and thoughts, and make decisions. In groups, students can both teach

others and learn from each other in ways that result in a powerful and active form of learning. Group work can be used:

- At the start of a lesson or topic, to find out what students already know;
- During a lesson, to encourage understanding or to share views and opinions about a topic; and/or
- At the end of a lesson, to help students think about their learning and be clear about what they know and what they still need to understand.

Before starting a group session, be clear about what you want to achieve from it. It needs to have a clear purpose or objective. For example: 'By the end of the session we will be able to describe how rain is formed and what it does to our local landscape.'

Steps in setting up group work:

- Divide the class into manageable groups depending on the size of your class, but don't make them too large – everyone needs to be able to contribute. You may have to move furniture or perhaps have some groups outside.
- Give each individual a job to do in the group. These could include: recorder of what's said; organizer; devil's advocate; peacekeeper; spokesperson; link person with other groups.
- Decide ways in which you will divide students into groups. You could use friendship groups, put similar personalities together, different personalities together, similar ability groups, mixed ability groups – or have no category at all. Which one will work best in the situation you are planning?
- Plan enough time for the students to reach a conclusion as well as time at the end of the session for each group – and you – to summarize the conclusions.

Introducing the group work:

- Once students are in their groups, explain that working together to solve a problem or reach a decision is an important part of their learning and personal development. Tell them what you expect of them in terms of behavior (e.g. respect for each other, listening, making decisions) and individual roles (e.g. spokesperson, recorder).

- Explain the task clearly and write it on the board as well. Tell the students what they have to do and what the outcome of their group work should look like. This is very important because if they do not understand what they have to do, the session will get off to a bad start. Allow students to ask questions before you start, and be helpful with your answers.

Managing the group work

- Check how the groups are doing. Resist the temptation to get involved too soon. Let them struggle with difficulties for a while. If you give them answers too quickly they will come to rely on you rather than on themselves. If necessary, clarify your instructions. It is important to remember that all learning requires us to struggle with difficulty or uncertainty. So expect a lot from your students, telling them how confident you are in them as you go between the groups.

Concluding the group work

- End with a whole-class session in which you get, for example, one idea from each group until you meet the original objective, or ask each group to tell you about the most interesting thing they learned. Try to make the final session an exchange of ideas rather than you telling them what they have missed.

- Summarize the work of the groups in a way that makes them feel proud of what they have done. Also, ask them to tell you how well

they thought they worked in a group. This gives you a clue about their own response to group work.

- Finally, think about how well you did in managing the group session. Recognize the parts you did well and note those areas where you could have done things differently to make the groups more effective. Use this information to develop your techniques for the next time, and note your own improvement and that of your students.

Mind Mapping

This is a way of representing key aspects of a central topic. Mind maps are visual tools to help students structure and organize their own thinking about a concept or topic. A mind map reduces large amounts of information into an easy-to-understand diagram that shows the relationships and patterns between different aspects of the topic.

When to use a mind map:

- A mind map is useful when you want to encourage creativity as its structure encourages free thinking.
- When trying to solve a problem, a mind map helps to highlight the aspects of the problem and how they relate to one another.
- A mind map can help to revise previous work with a class – quickly and in an organised way.
- Use mind maps when you want to encourage discussion, variety, experimentation and thinking in class groups.

How to make a mind map:

- Begin by drawing a box in the center of a piece of paper. Write in it the main theme, topic or idea you are going to represent.
- Make branches from the main box that have sub-themes associated with the main theme.
- Be creative with your basic map, adding in ideas around your sub-themes.

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- Try a mind map out on your own before trying it with your class. You could use it as a demonstration.

The following page shows a mind map of all the information teachers thought of at a workshop on the topic 'all we know about water':

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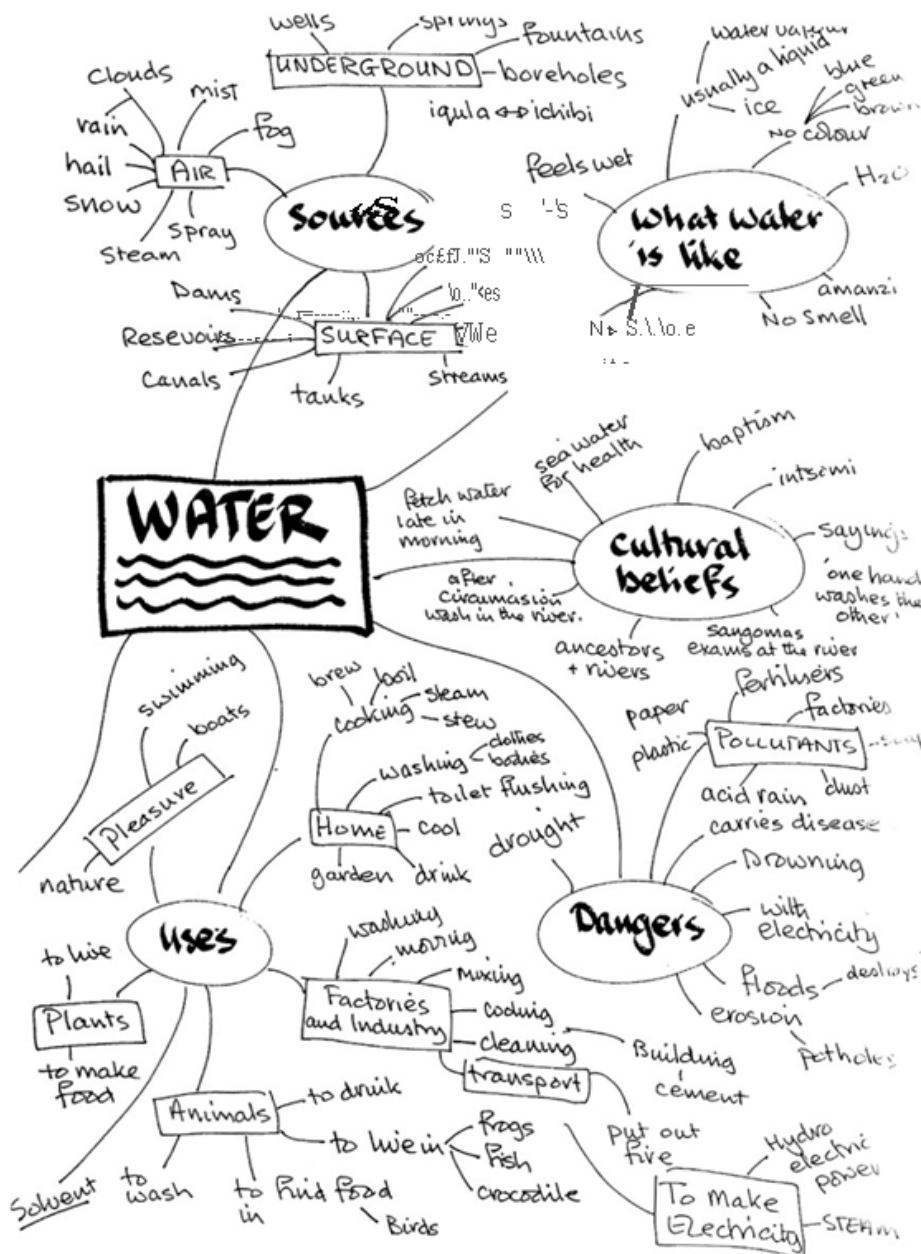
4.7. Parallel Co-Teaching as a UDL Model

Another UDL strategy is the *parallel type of co-teaching* (Keeley, 2015); herein teachers are paired together with full accountability for their classroom and the equal responsibilities of planning, instructing, and assessing their students. Co-teaching often assumes pairing general with special education teachers to create a more inclusive discussion (Stein, 2016).

Students are placed in groups based on their abilities and are asked the same question about a given topic. Thereby, every student contributes to the group activity as much as he/she can. Based on the students' abilities, teachers think of alternative ways of fostering interaction between diverse students, for example, creating big and small groups and assigning distinct tasks (one group can do writing, while others can listen to his/her peers then retelling). Therefore, the discussion topic for groups within the classroom is the same, but every student/group addresses the topic based on his/her knowledge and abilities. In this model, the instructor who considers the variety of ways in which he/she represents the information and how the learners synthesize and present their learning establishes the inclusive classroom.

Melissa Ferry (Ferry, 2013) describes some of the benefits of co-teaching with students with different abilities, such as:
- Gaining access to the general education curriculum and general education setting;
- Receiving specialized instruction;
- Learning in an intense, individualized manner;
- Having greater instructional intensity and differentiated instruction;
- Reducing negative stigma associated with pull-out programs;
- Feeling more connected with their group and classmates; and
- Having skillful teachers with a wider scope of expertise.

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Cook and Friend (1995) offer the following models of co-teaching that enhance inclusive practices in schools:

- **One teaches one observes:** One teacher delivers instruction while the other observes student learning and assesses student understanding and academic functioning.
- **One teaches, one assists:** One teacher focuses on providing instructions while the other moves around the classroom and assists struggling students or the ones who may need extra help.
- **Parallel Teaching:** The class is divided in half and the same material is presented at the same time by both teachers.
- **Station Teaching:** Both teachers are actively involved in instruction and the students rotate from one station to the next, learning new material.
- **Alternative Teaching:** One teacher takes a small group of students and provides instruction that is different than what the large group is receiving.
- **Team Teaching:** Both teachers instruct on the same lesson with all students present.

Note: You can find some additional information and resources on co-teaching concepts at the following websites in English:

Two Teachers in the Room blog by Elizabeth Stein
Need to Know: Successful Co-Teaching, by Wendy Murawski, Ph.D.
Collaborative Team Teaching: What You Need to Know, by Amanda Morin
6 Steps to Successful Co-Teaching, by Natalie Marston
Collaborative Team Teaching: Challenges and Rewards, by Marisa Kaplan

4.8. Inclusive Lesson Plans

Activity: Read sample lesson plans below. In small groups, discuss

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- What specific UDL principles are implemented in the lesson plans.
- What specific ideas or techniques can be implemented in your own classes.

Sample Lesson

The focus of this lesson is on *education for sustainable development* (ESD) What is it?

Education for sustainable development enables people to develop the knowledge, values and skills to participate in decisions about the way we do things individually and collectively, both locally and globally, that will improve the quality of life now without damaging the planet for the future. (Panel for Education for Sustainable Development, 14 September 1998)

Sustainable development is an integral part of citizenship that will enable students to:
- Understand that despite physical, material and cultural differences, there is a lot that connects us with the wider world;
- Think critically and challenge injustice and inequalities;
- Identify, respect and value diversity;
- Develop a concern for and commitment to environmental issues and sustainable development;
- Be willing to act to make the world a fairer and more sustainable place; and
- Take responsibility for their actions.

Both citizenship and ESD provide great opportunities for active, student-centered learning styles from which students get a sense of their role as global citizens. Such an approach to learning includes lessons that explore distant localities and environmental issues. Exploring the local community and then communities further afield will help students to expand their thinking about how different

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communities and cultures can be and how the same problem can be solved in many ways, and provide new ideas to try and test. ESD also explores ways to be more self-sufficient. This means making best use of the resources around you but not using them all up.

Thinking about ways you can replenish or replant will ensure continuity. It means using only what you need. Local resources are not everlasting but have a limit unless we try to share and use these wisely and replace, where possible, what we use. Adapted from original source: http://www.bbc.co.uk/

The following outlines a science lesson that is adaptable to UDL while developing responsible attitudes in students. The topic is the importance of sustainable resources. In this case study, teachers try to make students aware that we have limited supplies of many materials on the Earth. (Original source: http://www.footprintnetwork.org Calculate your ecological footprint.)

A teacher encourages the students to go out into their own community and think about the impact of people on their environment. The class researches, designs and carries out a long-term compost-making project. You can start by introducing the terms 'biodegradable' and 'non-biodegradable' and explaining what causes rotting – bacteria. Students will be able to give you many examples of materials in each of these groups – this could be a brainstorm activity. Later, you might want to go into income-generating production of compost, which would involve systems for safely collecting local compostable waste and its subsequent sale or use in a school vegetable garden.

From the previous work, students will have begun to realize that we need to think carefully about using non-renewable resources. We need to start thinking how we can act to become part of the solution to this problem and not just part of making the problem worse. It is good to get students involved in positive action that benefits the environment

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in some way. Students can explore other ways to recycle or reuse what would otherwise be waste material. People in poorer communities do this in very creative and imaginative ways out of necessity.

The ecological footprint is a tool that measures how much land and water area a human population needs to produce the resources it uses and to absorb its waste. In order to live, we consume what nature offers. Every action has an impact on the Earth's ecosystems. This is of little concern as long as human use of resources does not exceed what the Earth can renew. But are we taking more?

Today, humanity's ecological footprint is over 23% larger than what the Earth can regenerate. In other words, it now takes more than one year and two months for the Earth to renew what we use in a single year. We are surviving by using up the Earth's resource stores. We are both using up non-renewable resources such as minerals, ores and petroleum but also renewable resources such as fish stocks, animals, forests and groundwater – we are using these up faster than the Earth can resupply them. We depend on these ecological assets to survive. Livelihoods disappear, resource conflicts happen, land becomes barren and resources become increasingly costly or unavailable. This is made worse by the growth in human population, as well as by changing lifestyles that place more demand on natural resources.

By measuring the ecological footprint of a population (an individual, a city, a nation, or all of humanity) we can assess how much of the planet we are using, which helps us manage our resources more carefully. Ecological footprints enable people to take personal and collective action so that we live within what the Earth can regenerate.

The challenge and the goal are "sustainability". Sustainability is a simple idea. It is based on the fact that when resources are used faster than they are produced or renewed, the resource is depleted (reduced in number) and eventually used up. In a sustainable world, people's

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demand on nature is in balance with nature's capacity to meet that demand.

Answer the following questions to see how big your ecological footprint is. Add up your points, indicated at the end of each question (for example [2]) to see if you are making a high, medium or low impact on the environment around you. Remember, the smaller the footprint, the better!

1. How much of the food that you eat is processed, packaged and from far away?

a) Most of the food I eat is packaged and from far away. [3]
b) About half the food I eat is packaged. [2]
c) Very little. Most of the food I eat is unprocessed, unpackaged and locally grown. [1]

2. What is the size of your home?

a) 30 sq m or smaller [1]
b) 90–130 sq m [2]
c) 200 sq m or larger [3]

3. Do you bicycle, walk, or use animal power to get around?

a) Most of the time [1]
b) Sometimes [2]
c) Rarely [3]

4. On average, how far do you travel on public transportation each week (bus, subway, taxi)?

a) 25–100 km per week [3]
b) 20 km per week [2]
c) 0 km per week [1]

5. On average, how far do you go by car each week (as a driver or passenger)?

a) 0 km per week [1]
b) 250–500 km per week [2]
c) 700 km or more per week [3]

6. Compared to people in your neighborhood, how much waste do you generate?

a) About the same [2]
b) Much less [1]
c) Much more [3]

Now add up your points and refer to the table below.

If you scored between 0–6 points, you currently have a low impact ecological footprint. Well done! See if you can improve your score by using some of the ideas below.	If you scored between 7–12 points, you currently have a medium impact ecological footprint. See if you can improve your score by using some of the ideas below.	If you scored between 13–18 points, you currently have a HIGH IMPACT ecological footprint. See if you can improve your score by using some of the ideas below.
• Set up a group in your area to discuss issues and raise awareness about the impact humans have on the environment.	• See if you can eat more locally produced foods to cut down on fuel used to transport products. • See if you can walk or use public transport, rather than travelling by car.	• Try to walk or use public transport instead of travelling by car. • Try to cut down on the number of packed or transported foods that you eat. • See if you can reuse and recycle any waste materials that your household produces.

In this example, you are encouraged to develop this thinking in your students in relation to the tension between commonality and diversity among human beings. A next step could be to use these ideas by involving your students in thinking of ways to improve their environment.

4.9. Inclusive Assessment

Inclusiveness in the assessment process is very essential for successful teaching. The assessment should reflect diversity in its design in order to correspond the various needs and difficulties of the diverse learners in the classroom; it should also ensure fairness and equality. Though, it

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is possible to use a single-design assessment (for example, give the same tasks to various learners), individually created and conducted assessment mechanisms reflecting the ability levels of all learners is preferable. All tasks and assessments should provide every learner with equal chances to demonstrate his/her abilities and achievements. Much of the narrative below is adapted from "TESSA Inclusive Education Toolkit: A guide to the education and training of teachers in inclusive education", 2016, http://www.tessafrica.net and from the Open University's "open, Learn, Create: an Introduction to Inclusive Education, see www.open.edu.

Inclusive Assessment strategies require that the teacher:

- Identify students who will need varied assessment tools;
- Ensure that there are many ways to measure learning and assess;
- Ensure that his/her assessment strategies are culturally inclusive;
- Accommodate students' abilities when setting deadlines;
- Know students' preferences for the completion of tasks (e.g. offering flexible approaches to a task or exam); and
- Ensure that the assessment will capture the knowledge and skills required by the lesson.

Assessment falls into two categories. One category looks back and makes a judgement on what has been learned already. Summative assessment (the assessment of learning) can be seen in the form of tests and marks which tell the students how well they have done in a particular subject or piece of work.

Formative assessment is quite different. Formative assessment (the assessment for learning) is based on the idea that students will improve most if students:

- Understand what it is they are meant to learn;
- Know where they are now; and
- Realize how they can close the gap between these two.

As a teacher, you will get the best out of your students if you aim to use the three points above, which makes assessment as much a

responsibility for the student as it is for the teacher. How does this work?

When you decide the learning outcomes for a topic or a piece of work you should share it with the students. You need to be clear by distinguishing not just what it is they have to *do*, but what it is you are expecting them to *learn*. So to check they have understood, rather than saying 'Have you all understood?' ask a question that gives you the chance to assess whether they have really understood. For example:

- 'Who can explain in their own words what we have to do and what we aim to learn?'
- 'How can you make me sure that you have understood what I have just said?'
- 'So what is it we are going to do today?'

Their answers will enable you to know if they understand what it is they have to learn before they start. Give them time to explore the true meaning of your learning outcomes.

In order to help students improve, you and they need to know the current state of their knowledge. It is your role to be sensitive, constructive and enthusiastic in finding out the current state of knowledge of your students. Insensitive comments and behavior can have a damaging effect on student confidence, motivation and enthusiasm. Think back to those teachers who damaged your own confidence and enthusiasm, and do not follow their behavior. Instead, when you talk to students about their current learning, make sure that they find your feedback both useful and constructive. Do this by:

- Identifying students' strengths and suggesting how they might further improve them;
- Identifying weaknesses and be positive about how they might be tackled, checking that students understand and are positive about your advice; and
- Assessing learning as a two-way process.

Closing the Learning Gap

You will need to provide opportunities for students to improve their work. This means that by talking to them about their work you may discover misconceptions that mean you have to modify the content and style of what you have been teaching if you want to close the gap between where they are now and where you wish them to be.

Very often, by slowing down with a group of students you can actually speed up, because you have given them time and confidence to think and understand what they need to do to improve. By letting students talk about their work amongst themselves and reflecting on where the gaps are and how they might close them, you are providing them with ways to assess themselves. Key to all this is you, the teacher, demonstrating a belief in your students, giving constructive guidance on how to improve and providing opportunities for them to take charge of their own learning.

If formative assessment is beneficial for the students, it is also beneficial for teachers: if teachers think about the students' reactions, learning outcomes, the way the lesson developed and the quality of the activities, then teachers can improve their own performance. This enables teacher self-evaluation.

The key word for formative assessment (or assessment for learning) is 'constructive'. Giving and receiving constructive feedback is a very important part of the assessment process. It is important for teachers to give students either written or oral feedback, explaining clearly what is good about their work, what is not so good, and how it could be improved. This provides the opportunity to give individual students personalised targets to enable them to progress and improve at their own pace according to his/her abilities and needs. This is what Dickinson and Wright name 'differentiation by response'.

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Concerning written comments on assessments, when teachers work with a large teacher–student ratio, creating a roster could be a solution. If a student has done something that surprises you because it is really good or not as good as usual, take time to analyse what may have happened so that he/she continues to produce quality work or try to improve.

Think of using the feedback given in previous sessions to do your lesson plan, the activities and the following assessments. Remember that making the learner participate in their evaluation will help in the learning process.

Becoming an inclusive school is not easy and it is crucial to consider the types of support that both students and teachers need. Teachers can use various support strategies to promote learning and the inclusion of all. It is important to remember that teachers working towards an inclusive school will need support; it is a process that frequently challenges their (often long-held) own values, attitudes and their practice.

Inclusive Assessment Cycle (FutureLearn, 2018)

See the following diagram for how these three overlapping circles demonstrate how the components of assessment – presentation, content and output – overlap to improve inclusion.

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Inclusive Assessments

= inclusion

Think digital as well as paper Technology can provide visual, audio and tactile versions

Presentation

Output

Content
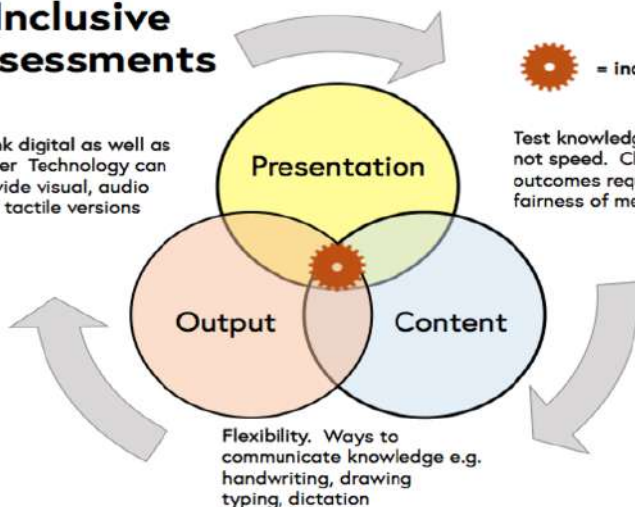
Test knowledge and skills not speed. Clarity of outcomes required and fairness of measurement

Flexibility. Ways to communicate knowledge e.g. handwriting, drawing typing, dictation

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Here are two demonstrations.

A geography teacher in 10th grade, Mr. Hunanyan, is conducting an oral exam. One of his students who has a speaking disorder cannot fully present his knowledge because of this barrier. So while others are taking an oral examination, he is writing the answers of the same examination. In order to hide the diversity of this one student, Mr. Hunanyan asks other students, or randomly chooses some other students, who will also complete the examination in written form.

A literature teacher in the 9th grade, Mrs. Vardanyan, assigns group presentations to introduce some prominent authors. A student who with good computer skills but has hearing issues is assigned to produce the technical part of the presentation (e.g. choose headings of the slide pages, choose pictures and make the outline). The same technical tasks should be given to other groups' members, who may prefer not to verbally present. To highlight the work of those students who will not be verbally presenting, the teacher acknowledges the contributions of "the content designers" with the award of titles such as "most creative thinkers" or "most responsible student".

CHAPTER 5: INCLUSIVE LEARNING TECHNOLOGIES

Inclusive learning tools can be described as those technologies, whether software or hardware, that help students learn strategies to bypass, work around or compensate for their difficulties. Many of these technologies incorporate Universal Design features, which focus on providing learning resources that accommodate for learner differences. Inclusive technologies may be designed to remediate specific difficulties and contain key supportive features, while others have features that support a range of learning needs. They may be standalone programs or may integrate with other commonly used applications. The use of Information and Communication Technology (ICT) has become an essential tool in upgrading classrooms and pedagogies that strive to become inclusive.

Inclusive classes generate many challenges for teachers and other school staff members. Although innovative technologies and tools assist the teachers in managing all students in the classroom, teachers should also attain the corresponding teaching skills needed to implement these new and innovative tools. Technologies should facilitate the learning process and promote the literacy, communication and social skills of diverse students.

Technology use may not always be equally effective for all students, as it depends on their technological preferences, learning styles and attitudes towards communication tools. Particular attention should be paid to the selection of ICT tools to maximize the benefits for students with impaired vision, hearing, language understanding, etc. One example of a gap in technological adaptation is gender-related. Male students tend to be more enthusiastic in using the computer, even for non-academic purposes, than females who do not always have appropriate digital skills to comfortably use a computer (Bagon, Gačnik, & Starcic, 2018).

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5.1. Visual Impairment Assistive Tools

Accessible calculator	Accessible calculators offer Braille displays, large buttons and a speech output setting. Many types are available for standard functioning, scientific calculations and graphing
Pocket magnifier	Pocket magnifiers are compact tools (lenses) that magnify reading materials. While some are compact, others convert into standing mode and serve to magnify a larger scope.
CCTV magnification systems	This closed-circuit TV magnification system can magnify any printed material or image to a video display or television screen.
Braille translation software	This software converts any written document to braille that can then be sent to a personal reading gadget or Braille display device.
Screen readers	Screen reader software allows students with visual disabilities to read any text on a computer screen through a braille display or speech synthesizer.
Tactile displays, graphs, maps, models and pictures	These displays provide information on countries' location on the map during geography classes.
Applications on gadgets	Accessnote, Evernote (note taker) Dragon Dictation - This app allows to dictate any message and add punctuation verbally; the text appears on the screen instantly. Talking scientific calculator – This calculator has a wide range of voices to choose from and allows the recording of the learner's voice. It works with VoiceOver (supportive app) for the blind.

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	MyScrypt calculator (more applications: http://www.perkinselearning.org/technology/blog/five-calculator-apps-help-students-low-vision-classroom).

Recently, The Braille Institute has developed an IOs app (ViA- Visually Impaired Apps) that accommodates in excess of 500,000 + apps on the App store; it also can find the most appropriate applications for students who are visually impaired or have no vision.

5.2. Mental Disorder (including Attention Deficit) Assistive Tools

Storybird	In order to create an engaging learning environment in the classroom, Storybird (https://storybird.com/) can be used. It is a friendly language arts tool. The learner can write stories from many creative illustrations available. It is free. Educators can use this platform to review students' performance, generate comments and issue assignments. Users (learners) can share their illustrative stories for peer review. Parents can also review their child's performance and make comments. In order to use this tool, a classroom should be provided with computers or at least the school/educator should make sure the learner has access to a computer at home. Many learners in the classroom can benefit from this tool as it will provide a digital space for a child who has speech disorder to create their own stories and be heard.
Inspiration – Mind Mapping	This software takes notes, organizes information, and structures writing for plans, papers and reports, uses the integrated Outline View to focus on main and supporting ideas and clarifies thinking in written form. With Inspiration's Presentation Manager, diagrams, minding maps and outlines can be transformed into polished presentations that communicate ideas clearly and demonstrating knowledge. (more info:

	http://www.inspiration.com/)
Overlays (can be included in the visual part	Colored overlays, a type of tinted filter, are placed over text to eliminate a wide range of reading difficulties such as low reading rate, comprehension and accuracy.

These are some low or average budget tools that we envision for use in the classroom, but such technologies don't preclude accommodations being made to the school building and its facilities.

CHAPTER 6: SUSTAINABILITY

Sustainable Development (SD) in education and learning allows everyone to acquire the knowledge, skills, values and attitudes necessary to shape a sustainable future. It requires participatory teaching and learning methods that empower and motivate learners and educators to change their behavior and take necessary action for promoting sustainable development. SD in the learning sphere promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way. Oftentimes, this requires changes in the way education (classroom learning) is practiced. "ESD is essential for the achievement of a sustainable society and is therefore desirable at all levels of formal education and training, as well as in non-formal and informal learning ("The European Council in 2010," 2011). The following components for sustainable development of schools as they adopt inclusive practices are

![inclusion logo]

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recommended by de Silvia and Padmanathan(Padmanathan & De Silva, 2013).

6.1 School Culture

A strong, cohesive school culture ensures the long-term sustainability of quality education. This applies to inclusive practices in schools. The following components contribute to the development of a cohesive school culture:

- Changing attitudes: 1) Establish mission/vision statement, 2) Set objectives collaboratively by faculty, staff, parents, students, stakeholders, 3) Implement established objectives through collaborative team approach, and 4) Delegate shared duties and responsibilities.
- Leadership: 1) Become an agent of change through example, 2) Continuous self-development, 3) Supervision and monitoring of faculty, staff, school programs and school community at large, and 4) Organizing resources to improve teaching and learning in the classroom.

Parents, particularly those of children with disabilities, are often afraid to come to their child's school. However, if communications between parents and teachers were easier, teachers would learn to know the children and their needs better and quicker, which would allow children to progress more rapidly. Reflect on the following questions:

- What types of events attract parents and members of the community to the school and enable an exchange between them and the teachers?
- Can teachers visit parents and members of the community? In which circumstances?
- What do you, and what do teachers and other staff members do, so that parents are encouraged to come back over and over again to school?

- Who are the students whose parents do come and who are those whose parents never come? Are there particular reasons that prevent the latter from coming to school?
- What does the school do to encourage the parents that never come to start coming?

Networking is a way to make the most out of all available knowledge and expertise to raise the community's awareness on different topics, encourage all parents to send their children to school, make them stay in school and reach their full potential. Networking avoids efforts being duplicated and has a more powerful and effective result.

Capacity building provisions involve the key stakeholders in the schooling community:

- Ongoing Staff Development: 1) Trainings and workshops to keep the faculty, staff and administration updated on the latest developments in the field of inclusive education, 2) Experts in specialized fields related to students with learning challenges should be scheduled to provide the most current and applicable approaches in pedagogy, 3) Observations of peer-teachers (inter and intra-school) as a part of peer mentoring process, 4) Administrative monitoring and the establishment of quality assurance markers of best practices in inclusive teaching/learning methods, and 5) SWOT (Strengths, Weaknesses, Opportunities and Threads) analyses of existing conditions with all involved stakeholders (for a sample SWOT analysis, 2018 see Appendix 6).
- Parent education: 1) Open House with visitation to classrooms and school facilities, 2) Orientation of special programs, equipment, and services available at the site, 3) Observation within the classroom with administrative approval, 4) Parent education classes designed for parents of students with special needs, 5) Regular parent meetings, and 6) Creation of a forum where parents can interact, exchange ideas and provide mutual support (e.g. Viber chat group, FB Messenger).

6.2. Forums and Platforms for Sharing Experiences

The events suggested below are typical in a school context and lend themselves well to implementing sustainable inclusive practices:

- Teacher and staff meetings;
- Meetings with stakeholders, including local and international organizations representing groups - such as disabled /minority groups;
- Teacher training sessions;
- Media coverage and dissemination of shared experiences: online and/or printed information; and
- Raising awareness activities.

Activity: Now that you are aware of the notion of Sustainability Development in three different aspects: school culture, capacity building, and forums and platforms, complete the following activity.

In small groups of three or four, discuss your experience regarding SD and come up with a list of SD activities that your school has already implemented. Then, compare your answers with those of the other groups while identifying common areas of strength and weakness. Then, name some of the SD activities that you would like to implement in the future.

ADDITIONAL RESOURCES

Activity 1

The following is adapted from "TESSA Inclusive Education Toolkit A guide to the education and training of teachers in inclusive education," 2016.

Target audience: Teachers

Number of teachers: 50

Objective of the activity:

- Enable teachers to differentiate between the various types of schools
- Apply their knowledge about schools in developing their own ideas/definitions about inclusive education
- Read the definitions of different types of schools in small groups of 4-5 (Appendix 2)
- Decide the corresponding name for each school type and match
- Check your answers using the information in the table (Appendix 3)
- With your group create your own definition of *inclusive education*
- Ask volunteers to share some of the ideas with the rest
- Compare your initial definition/ideas of *inclusive education* to the following definitions

Inclusive education is the welcoming of all learners into the same classroom and providing them with high-quality instruction and the support tools necessary for their academic success. To ensure a successful implement, schools and school systems are required to adapt to the needs of each individual student, rather than trying to fit

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the student to the system by "fixing" him/her. Parents, teachers, and other students also should be convinced that different types of student-learners, including those with disabilities, have the right to attend school alongside their peers ("Handicap International | Humanity & Inclusion," 2019).

The UNESCO Convention against Discrimination in Education (1960), and other international human rights treaties, prohibit any exclusion from or limitation to educational opportunities on the basis of socially ascribed or perceived differences, such as sex, ethnic origin, language, religion, nationality, social origin, economic condition, ability, etc. Educational structures need to become proactive in identifying the barriers and obstacles learners encounter in attempting to access quality education, as well as in removing those barriers and obstacles that lead to their exclusion ("Convention against Discrimination in Education, 1960," 2003).

- Highlight characteristics you believe to be important in creating a fair educational environment, and share your definitions identifying new, more progressive elements.

Inclusive classroom also means that the educator should create and use collaborative educational models. One of them is co-teaching. Together with the teacher (main instructor of the classroom), the co-teacher (the assistant) plans the lesson, creates general activities for all students in the classroom (regardless of their ability levels), discusses the limitation(s) of their lesson, tackles lesson redesign (if/when appropriate), and implements the changes (with peer assessment of the new lesson).

The concept of *inclusive learning* is the same for all classrooms, but in all practicality, it will vary across classrooms due to variation in disciplinary content, technology usage, and students' needs. Therefore, the instructor should find the best way to conduct their lessons. For example, he/she can implement *an interactive* teaching-learning

methodology; the teacher and their assistant should ask students questions about the same topic with the expectation that each will address it in the best way they can. In short, all the students will be learning the same thing, however, in different ways.

Activity 2

The following activity is adapted from http://www.open.edu. ("Distance Learning Courses and Adult Education - The Open University," 2019)
This activity is designed to help teachers decide which type of activity is best suited for specific types of learners.

- Gather the preparation notes of the last two lessons you have prepared.
- Draw a table (Appendix 4), and do the following for each preparation sheet:
  - o In column 1, note down the activities done by the students.
  - o In column 2, specify for which kind of students these activities (visual, auditory or kinesthetic) are appropriate and the skills that they will develop.
  - o Finally, in the last column, indicate for which students you would require personalizing the proposed activity – think about their gender (girl/boy), disability, etc.

Review your list critically. In each lesson, do you have activities that cater to different types of learners? If not, which activities could you introduce into the lesson so that all types of learners reach the learning objectives? If possible, share and discuss your ideas with a colleague.

Activity 3

The following activity is adapted from "Success for all Students in Inclusion Classes," 2019.

The objective of this activity is to provide an understanding of inclusive, learning-friendly classrooms. Decide which of the classrooms below is inclusive and learning-friendly – Classroom A or Classroom B.

Classroom A

Forty learners are sitting on wooden benches behind desks with their exercise books open and their pens in their hands. The teacher is copying a story on the chalkboard from the textbook, making sure that she writes it exactly as it is written in the textbook. The boys, who are sitting on the right side of the room, copy what the teacher has written into their exercise books. The girls, who are sitting on the left side of the room, wait for the teacher to move so that they can see what she has written and copy it into their exercise books. As she writes, the teacher asks: "Are you copying the story that I am writing?" Everyone answers: "Yes, teacher."

Classroom B.

Two groups of learners are sitting on the floor in two circles. Both groups contain girls and boys. The teacher is teaching geometry to the learners. In one group, the children are talking about circles. The teacher has shown them some common round objects that she had asked the students to bring from home. The children handle the objects and then work together to make a list of other objects that are circular in shape. In the other group, some of the children are holding rolled up newspapers that look like long sticks. The teacher calls a number, and the child with that number places her stick on the floor in the center to begin forming a square. One child with hearing difficulties adds her stick to form a triangle and smiles at the teacher. The teacher smiles back at her and says "very good," making sure that the child can see her lips as she speaks. A parent, who has volunteered to be a classroom helper for a week, pats her on the arm, and then turns to assist a student who is confused about where to place his stick in order to form a new shape.

Now, answer the following questions:

- Which one of these classrooms do you believe is inclusive and learning-friendly (For the full-length characteristics of the inclusive classroom see Appendix 5)?
- In what ways is it inclusive and learning-friendly? Brainstorm your list and compare it with a colleague's. What items on your lists are the same? What items are different?

You may have many different answers. Some of your answers may include how the children are seated, the teaching materials that are being used, who is in the classroom, and the ways they interact with each other (their relationships). These characteristics are very different in the two classrooms, and they tell us about the kind of learning environment the teacher has designed.

The table below presents some of the characteristics of a learning-friendly classroom. You may think of many others.

Reflection Activity

What's the situation in our school?

Think about the elements of an inclusive, learning-friendly classroom (Appendix 3), and ask yourself the following questions:

- What type of classroom do I work in?
- What changes can I introduce to make my classroom more inclusive and learning-friendly?
- How can I make the topics I teach more interesting for my students?
- What they will want to learn about them?
- How can I arrange my classroom so that ALL of the students are learning together?
- Who can help me to create an ILFC (e.g. the principal, other teachers, my students, parents, and community leaders)?

Videos

Below are the links to a video generated by AUA in three languages: Armenia, English and Russian, talking about inclusive education and inclusive classrooms:

https://m.youtube.com/watch?v=_3-TzhoFsjg

https://youtu.be/bDvKnY0g6e4

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APPENDICES

Appendix 1: Results of SWOT Analysis on Inclusive Education in Armenia (AUA, 2018)

Below are the results of SWOT analysis from a roundtable discussion on Inclusive Education in Armenia, held at the American University of Armenia (2018) that presents not only opportunities and challenges for inclusion of students with hearing, visual, and mobility impairment, and psychological, developmental, and mental health issues, but also suggests action items to overcome the barriers in the implementation of inclusive education.

Inclusion of Students with Hearing, Visual, and Mobility Impairment

Strengths

- Legislation requires environmental adaptations (e.g. vocal traffic lights, ramps and other facilities' adaptations, etc.);
- A few schools have acquired assistive technologies;
- Initiatives have been implemented (e.g. art therapy, OT, personal guides, "SOURCE");
- Awareness of inclusion agenda is improving with increased parent-teacher cooperation;
- Availability of Assessment Centers and Rehabilitation Centers;
- Free training of specialists in higher educational institutions;
- Free education of students with I and II-degree disability; and
- Hearing screenings for newborns and medical/surgical procedures allow for earlier interventions.

Weaknesses

- Many of the above cited "strengths" are not universally available in schools in Yerevan and the marzes (e.g. availability of technologies, best practices in pedagogy, academic and professional tracks for children, physical equipment, qualified

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support staff, screenings of children to detect potential issues, etc.), therefore there is an absence of reasonable accommodation;

- Inconsistent use of terminology (e.g. children are weak/sick/disabled, etc.), can potentially lead to a misapplication of ethical norms;
- Lack of a unified, national database with the names of children identified under I and II-degree disability;
- Mandates outlined in the legislation are mostly unfunded, and resources needed to fund the hiring of support teams within schools are insufficient;
- Without true inclusion, these children will continue to be isolated, segregated; and
- Lack of differentiated approaches to learning and adaptation of alternative learning materials and media.

Opportunities

- Legislative framework exists – needs to be fully implemented;
- State finances exist – need to be properly apportioned to schools (Yerevan and marzes);
- Implementation of consistent curriculum, learning objectives and modalities of instruction via universal design;
- High level of motivation and experience within the current Armenian structures and institutions;
- Cooperation with international organizations, local civil society networks, experts, and donor support (global and diaspora);
- Programming in arts and sports in schools and across schools including opportunities to connect with Paralympic and Special Olympic structures;
- IEPs identifying modalities of instruction, student learning outcomes appropriate to children's needs;
- Sharing of best practices between schools; and
- Service multiplication, resulting in a competitive field and high quality services.

Threats

- Lack of societal/cultural recognition and support for the issue of Inclusion (e.g. persistence of negative terminology affecting child and family, etc.);
- School facilities not being retrofitted to meet needs;
- Lack of appropriate resource allocation;
- Absence of translation centers to develop learning materials for the visually and hearing impaired;
- Insufficient number of properly trained professional staff; and
- Limited government (and/or international) grants to address funding gaps.

Action Items

- Conduct an inventory of current K-12 facilities to assess their compliance with legislative mandates, specifically in regard to their accessibility for those with physical disabilities.
- Identify current best practices in respect to the use of assistive technologies for children with hearing and visual impairment (e.g. teaching best practices, learning resources).
- Identify the profile of professional staff needed to work with young people (e.g. their educational degree(s), professional training, internships/field experiences, etc.).
- Recommend to the MoES the identification of an individual specifically charged with identifying grants and other resources needed to address human and fiscal shortages.

Psychological, Developmental, Mental Health Issues

Strengths

- Children/students are currently mainstreamed in schools and live with families;
- Legal frameworks exist protecting students;
- Presence of specialists' training programs;

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- Positive trend in overcoming stereotypes in the community; collaborative networks exist;
- Utilization of IEPs and children's/students' needs assessment;
- Interdisciplinary teams and Resource Centers often include psychologists to provide support;
- Teachers' assistants and teachers are trained and willing to provide support to children/students; and
- Collaborations among institutions, school and organizations.

Weaknesses

- Insufficient and inconsistent number of specialists, trainers and trainings for teachers across Armenia;
- Inability to provide services outlined in IEPs; lack of adequate assessment of child's needs and follow through on student learning outcomes;
- Universal inclusive design is unrealistic;
- Culture of assessment is not currently instituted system-wide;
- Decrease in number of student support positions as a result of new disability categorizations and child/student assessment methods;
- Lack of human and fiscal resources on national, and most importantly, regional levels;
- Lack or insufficient number, and inconsistent effectiveness, of Pedagogical-Psychological Centers and Resource Centers;
- Healthy learning atmosphere is disrupted for non-disabled students in classroom;
- Students with severe disabilities are not manageable in mainstreamed setting;
- Lack of consistent terminology; and
- Those with intellectual disabilities face harsher stereotypes than those within the category of the "medical model"

Opportunities

- New assessment methods may achieve greater effectiveness across system;
- Potential to increase number of trainings for teachers, specialists and outreach to parents/community;
- Opportunities exist for greater collaboration between schools, NGOs and Pedagogical-Psychological Centers;
- Opportunities exist to identify additional resources, human and fiscal;
- Conferences, forums, and similar events on various issues/disabilities can be scheduled on various topics (e.g. ADHD, AUTISM);
- Need to convene working group to make the IEP more functional;
- Additional alternative services can provide a greater variety of modalities of instruction (e.g. art therapy, sand therapy, tale therapy, cultural and sport activities);
- Design incentives encouraging specialists to work within marzes; and ICT development in Armenia.

Threats

- Lack of adequate financial support for initiatives within and without the schools;
- Lack of human resource allocation (e.g. student/teacher ratio);
- Only one public HEI trains teachers and specialists;
- Low SES of families impact a variety of issues including transportation to schools/Resource Centers; lack of access to rehabilitation centers;
- Pervasive stereotypes towards children with disabilities exist among all stakeholders;
- Teachers are inadequately prepared to work with children/students;
- Uneven distribution of available resources across marzes;

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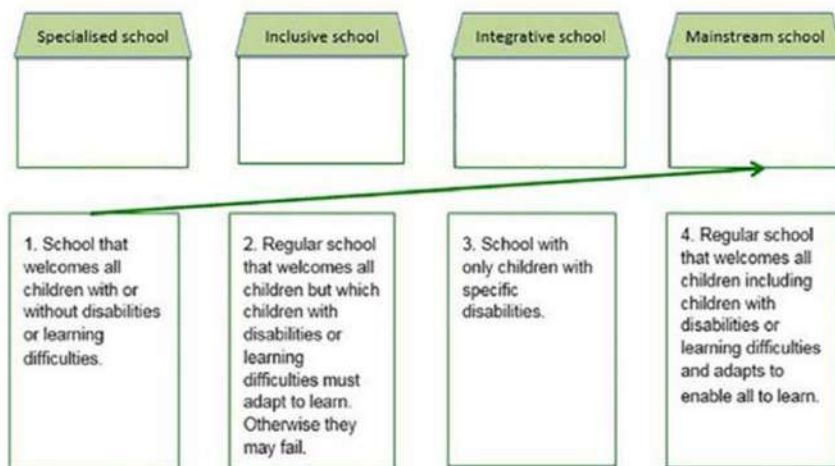Erasmus+ Programme
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- Barriers on the legal field impede inclusive education's' effective implementation; and
- Social inclusion does not equate to inclusive education.

Action Items

- Broaden the discussion of "disability" beyond the medical model to include developmental, psychological and mental health issues.
- Ensure that trainings and educational degree programs for teachers and specialists sufficiently address this broader scope of "disability".
- Research and implement best practices in alternative modalities of instruction to engage children/students with autism and ADHD.
- Reassess IEPs and assessments to ensure that students' needs are being properly defined and addressed.

Appendix 2: School Types

Read the definitions of the different types of schools and match them with the corresponding school type (taken and adapted from "TESSA Inclusive Education Toolkit A guide to the education and training of teachers in inclusive education," 2016).

Specialised school	Inclusive school	Integrative school	Mainstream school

| 1. School that welcomes all children with or without disabilities or learning difficulties. | 2. Regular school that welcomes all children but which children with disabilities or learning difficulties must adapt to learn. Otherwise they may fail. | 3. School with only children with specific disabilities. | 4. Regular school that welcomes all children including children with disabilities or learning difficulties and adapts to enable all to learn. |

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Appendix 3: Answer Key for School Types

Use the table to check your answers regarding the school types (taken and adapted from "TESSA Inclusive Education Toolkit A guide to the education and training of teachers in inclusive education," 2016).

	Special Education	**Regular Education**	**Integrative Education**	**Inclusive Education**
Are Allowed	Children with specific impairments	All children	All children, but they must change to fit the system	All children, with their individuality and differences, different levels of ability, different ethnic groups, girls and boys, valid or with disabilities
Curriculum and Methods	Everything is adapted to meet the children's specific needs	Everything is regular	The children need to adapt, otherwise they might fail	Everything is designed so that every child can learn and reach her/his full potential
The Teachers	Specialized	Regular	Follow the system that remains the same	Adapt the curriculum, methods, and system to the needs of the children

Appendix 4: Characteristics of an Inclusive, Learning-Friendly Classroom

Use the table below describing the characteristics of an Inclusive, Learning-Friendly Classroom to check your answers and complete the activity (taken and adapted from ("TESSA Inclusive Education Toolkit: A guide to the education and training of teachers in inclusive education," 2016)

	Traditional Classrooms	Inclusive, Learning-Friendly Classrooms
Relationships	Distant (the teacher addresses students with her back towards them)	Friendly and warm. The teacher sits next to and smiles at the student with a hearing impairment. The parent-helper praises this student and assists other learners.
Who is in the classroom?	The teacher as well as students with quite similar abilities	The teacher, students with a wide range of backgrounds and abilities, and others such the parent-helper
Seating arrangement	Identical seating arrangements in every classroom (all children seated at desks in rows; girls on one side of the room, boys on the other)	
Learning materials	Textbook, exercise book, chalkboard for teacher	Variety of materials for all subjects such as math materials made from newspapers, or posters for language class

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Resources	The teacher is interacting with learners without using any additional teaching materials.	The teacher plans a day in advance for the class. S/he involves the learners in bringing learning aids to the class, and these aids do not cost anything
Evaluation	Standard written examinations	Authentic assessment; Observations; Samples of learners' work over time such as portfolios

Appendix 5: Planning for Accommodations

Fill in the following table, specifying the skills that the children will learn (taken and adapted from "TESSA Inclusive Education Toolkit A guide to the education and training of teachers in inclusive education," 2016).

Activity done by students	Learning type and skills being developed	Accommodations for …
Earth Science: Classification of living and non-living objects	Visual Observation, logic	Deaf children: Use sign language to give instructions or put them in writing in advance Blind children: Choose items that they can touch or make them work in pairs and have their partner give detailed descriptions (brief partners carefully)

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Math		
Etc.		

Appendix 6: Results of SWOT Analysis on Human Capacity in Armenia

This is a SWOT analysis regarding the issue of Building Human Capacity: Administrators, Teachers and Interdisciplinary Teams (AUA, 2018) that can be used as a sample.

Strengths

- The National Institute of Education designed teaching modules and is charged with delivering 20-hour trainings for teachers (completed in 3 marzes – Tavush, Syunik, Lori); trainings available to teachers once every 5 years;
- International organizations, as well as NGOs, provide experts and implement trainings and other initiatives;
- The State Pedagogical University has a Special Education Department and curriculum that includes two required courses on inclusive education in the bachelor's and two in the master's; tuition waivers are available for students pursuing special education as their specialization; the Institute of Physical Education also has an allied program in Adaptive Physical Education;

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- HEIs in the marzes have established departments to prepare specialists in the fields of special education and/or social work;
- Parental and, in general, public awareness is progressing, better in Yerevan than marzes;
- Pedagogical-Psychological Centers and Resource Centers provide professional services (and social workers and social educators) and support the effectiveness of interdisciplinary teams in schools to support children/students; and
- Gaps in the present system are acknowledged by the MoES.

Weaknesses

- Fiscal and human resources are insufficient to meet the legislative mandate and child/student need; this includes few to no trainings for the interdisciplinary teams, specialists, teachers and principals in rural areas;
- Trainings provided by the National Institute for Education are insufficient – only limited hours and not regular; teachers remain unclear as to the conceptualization of inclusive education, the allied pedagogies, classroom management, IEP implementation, and assessment criteria, as well as the assessment of the trainings themselves;
- Higher Education programs for teacher education are more focused on theoretical than applied knowledge; the current practicum is insufficient in length and depth of experience;
- Lack of cohesiveness and collaborations between various universities and their programs;
- Members of interdisciplinary teams and other specialists are not licensed and held to consistent professional standards; this is also true of the teaching assistants; and
- Lack of cohesion between stakeholders.

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Opportunities

- Collaborations possible between NGOs, donors, and universities for the exchange of best practices, expertise and the identification of funding opportunities;
- STEM/AUMAT LABs and assistive technologies and smart devices can be acquired;
- The creation of an assessment system for trainers, trainees, and trainings would raise expectations and outcomes;
- Teachers would be incentivized to complete trainings and adopt new modalities of instruction through their accrual of additional benefits/salary;
- Universities can offer courses in inclusive education; and
- The infusion of "inclusion" across curricula and discourse on education in Armenia would publicly endorse the initiative (e.g. championing success stories and current best practices).

Threats

- Concept of inclusive education is not understood within and without schools;
- Parental expectations in respect to the schools meeting their children's needs are not being met;
- Competing national interests affect funding for schools and teachers' and support staff's salaries;
- Armenia does not currently have a sufficient number of qualified specialists to meet the need created by legislative mandate;
- Current structure/system for trainings is perceived as neither efficient nor effective;
- Lack of qualified specialists in the rural areas limit hope of progress; and
- Cultural stereotypes hinder teacher attitude and performance.

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Action Items

- Assess and make recommendations on the design, effectiveness and efficiency of the trainings designed by the National Institute of Education.
- Assess the design of the current degree programs at the State Pedagogical University to ensure alignment with the professional needs in the schools (K-12).
- Review and make recommendations on the job descriptions and salaries of teachers, teaching assistants and interdisciplinary team members to ensure that they match the level of knowledge and skills required.
- Devise a strategy to ensure that new teachers and specialists are incentivized to work in the marzes.