

A Toolkit for Assessing Capacity for Assistive Technology and Alternative Augmentative Communication for Children and in Educational Settings

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The Toolkit is offered to collect and analyze data to inform decision-making related to AT and AAC Capacity.

The toolkit has different functions:

1. To provide stakeholders with tools for the rapid assessment of the state of the art in country or region regarding AT and AAC Capacity for Children and Educational Settings.
2. To help stakeholders to take confidence with the current situation and the challenges that need to be addressed to improve the situation.
3. To help stakeholders to develop actual action plans.

The toolkit has been tested in multiple locations and is sufficiently flexible to be tailored to use in a specific location. The data is collected through initial desk research and document analysis to provide evidence of the current position within a location and enhanced by using the questions as the basis of semi-structured interviews or focus groups. It is not anticipated that every question would be asked of every participant, but rather that they guide the interview or focus group through the areas of discussion acting to prompt and probe for information.

The gathering of that information can be further refined according to context and gathered evidence within a location, country or region.

The first tool collects data at country level on the 5 domains used by the WHO to describe aspects related to increasing access to AT, the so-called 5 P's: People, Policy, Products, Provision and Personnel. For each P a high-level performance indicator is established, informed by international policy documents and good practices. It is preceded by a section that reports basic demographic data to provide a rapid profile of the country. This tool is typically to be completed by a panel of experts that know the situation in a country well or, alternatively, by a single researcher that could collect the information by interviewing different stakeholders.

The second tool contains a list of issues that could inform the building of consensus before action plans are developed.

The third tool could guide schools to improve their performance in supporting learners with disabilities.

The fourth tool could help to investigate the training needs of educational staff.

Tool 1. Assessment of AT and AAC Capacity for Children and Educational Settings

Country profile - macro level

Name of the country	Name
Majority ethnic group	Name
Minority ethnic groups	List
Languages spoken	List
Age distribution population	Break down in age groups
Rural-Urban distribution	Data
Educational system	Public/private/mixed
Health care system	Public/private/mixed
Annual income per capita	Amount in Currency (Euro/USDollar)
Expenditure for education	% of GNP
Expenditure for health	% of GNP
Expenditure for welfare	% of GNP
Disability statistics	Available Yes/No

Analysis at country level - meso level

People

Goal: The disabilities and educational needs of children are identified as early as possible, and provide the basis for allocation of support, including assistive and communication technologies, to achieve their full potential.

1.1.	Statistics	Which statistics are available that provide information on children with disabilities? What kind of information do they provide (e.g. incidence, health condition, access to services, other variables?)
1.2.	Definitions and classifications of disability	Are there official definitions of disability and classifications that are formally applied? In which policy areas or areas of public administration?
1.3.	Certification of disability	Is there a national system to “certify” a disability? By whom and how? Starting from which age? What are the consequences or benefits of that certification? How does it impact on a child’s position in the educational system?
1.4.	Living conditions	Where do children with disabilities normally live? How many children live in institutions and how many with their families? Who decides where a child lives?
1.5.	Services	What public services are activated when the disability of a child is ascertained? How timely is intervention? Is there coordination among sectors (e.g., health, education, welfare)? Who coordinates a personalised rehabilitation plan?
1.6.	Stigma and discrimination	What is the common attitude towards disability among the general population? Are families of children with disabilities at higher risk of social exclusion?

Policy

Goal: Children with disabilities have access to appropriate assistive and communications technology to develop their full potential and for their inclusion and participation.

2.1.	General legislation	Is the country a signatory to the UNCRPD? What legislation is available that is relevant specifically for children with disabilities and their families? Are there legislative powers delegated to lower administrative levels (e.g., regions or provinces)? How is the implementation of AT/AAC policy monitored and evaluated? What Criteria are applied for eligibility for assistive technology including AAC solutions? How is eligibility for assistive technology determined?
2.2.	Legislation in Education	What does the law define about children with disabilities in education? Which laws define a child's right to an inclusive education?
2.3.	Legislation regarding Assistive Technology	What legislation is relevant for people with disabilities' rights to receive AT? Which legislation defines the rights of children with disabilities to receive assistive technology and AAC solutions? Does legislation explicitly refer to provision of AT and AAC solutions to promote learning? What funding is allocated annually to assistive technology for specific needs? What funding is allocated annually for AAC solutions?
2.4.	Policy - inclusive education	Are there specific policies that foster inclusion education in general and the presence of children with disabilities in mainstream education in particular?
2.5.	Policy- Assistive Technology	Are there any strategies, plans or roadmaps that include assistive technology in the country? Is there a platform or mechanism for inter-sectoral and/or inter-agency coordination for assistive technology? Does the policy over assistive products only, service provision (assessment, fitting, user-training, follow-up, maintenance and repairs) only, or both? In facilitating AT and AAC use, are there special arrangements for children with disabilities compared to adults that take their particular condition into consideration (e.g., age, stage of development, type of disability, etc.)
2.6.	Policy- AAC	What explicit reference to AAC provision is made for children? What implied reference to addressing AAC needs is made in policy and guidance?
2.7.	Other enabling policies	Are there wider policies in place that aim at creating a more inclusive society? Is there a policy in place fostering Early Childhood Intervention?
2.8.	Funding	Are there financing schemes providing coverage for assistive technology? Who provides public funding for AT and under which responsibility is this funding granted? Who is involved in the decision-making process? To what extent is the provision of AT and AAC solutions dependent on international funding including UN or international aid agencies? How are taxes and import duties address in funding assistive technologies an AAC solutions?

Products

Goal: A range of AT and AAC products are available that address the needs of children with a disability and are distributed in a timely and cost-effective manner.

3.1.	Availability of AT and AAC products	What AT and AAC products are available on the domestic market? How are AT and AAC products categorised? Are there any regulations or standards that assistive products need to comply with in order to be placed on the market? How many vendors and AT producing companies are active in the market? What proportion of the market do individual companies have? Who are the key vendors for each category? How many vendors are domestic, and how many are international companies? Are consumer technologies such as smartphones and tablets funded for use by children with disabilities? If consumer technologies are funded, what are the criteria for funding? How are specialist and low demand products made available? What quality standards are applied to the purchase of AT and AAC products? How are new products added to approved lists of AT or AAC solutions? What (if any) limitations on cost are applied to provision of AT and AAC solutions? To what extent is Value for Money identified as a priority in AT and AAC procurement of products?
3.2.	Buyers of AT products	Who purchases AT products and products for AAC? Who pays for the required solutions? Who reimburses? Does it make a difference in case the client is an adult or a child?
3.3.	Sales channels for AT	What are the sales channels for AT products and products for AAC (e.g. online, catalogue sales, sales through representatives, specialised shops)? Is any preference given to domestic vendors? Are there different channels for AT and AAC or for children and adults? How long does it take on average for a child to receive a device?
3.4.	After sales services	Do vendors provide after sales services, such as training, personalisation, repair? What warranties are required in procurement of assistive technology and AAC solutions?
3.5.	AT products at school	Which AT and AAC products are available for children in schools and at home (define products/categories)? How is accessibility required in the purchase of educational technology for use in the classroom?
3.6.	Approach to products	Is there a policy that favours low tech vs. high tech solutions? Is there a policy that considers the benefits of both open access vs. commercial software? How is post-sales support and required training addressed when purchasing products? How is research and development of new AT and AAC products supported or funded?

Provision

Goal: AT and AAC Provision systems offer effective supply and support of the technologies required by children with disabilities and are flexible, efficient, competent, and outcome oriented.

4.1.	Responsibilities	Who is responsible for the provision of AT/AAC for children? How is this responsibility communicated? Where is the responsibility defined? Are there any written guidelines for service provision standards for assistive products? How are accessible education materials made available for learning? Who is responsible for raising awareness of AT and AAC for children? What examples of awareness-raising activities can be identified? Are there any formal referral mechanisms between providers of products and services?
4.2.	Needs determination	How is information about current and future demand gathered, recorded and analysed? How are needs reviewed and provision updated? Is an approved list of AT/AAC products held at national or local level? Which products are held on any approved list?
4.3.	Assessment of needs	What processes for the identification of AT/AAC needs are in place and who is involved? Are there independent (no commercial interests) AT services in place? Does the assessment involve a multidisciplinary team? What model for identifying AT/AAC is used within and across schools? How are children and families engaged in the identification of solutions for AT or AAC? How are “critical moments” and transitions such as decision points in the life of a child with a disability addressed?
4.4.	Funding	Who funds AT/AAC solutions for use at school? Who funds AT /AAC solutions for use at home? What alternative sources of funding are used within the country or region for AT or AAC? Is the solution funded or only non-mainstream devices. What is the annual expenditure by product and need for AT or AAC solutions?
4.5.	Decision making	Who decides which AT/AAC solutions will be provided and what are the criteria applied? What is the role of the child or the family? Are AT and AAC solutions available that support first language and local culture?
4.6.	Emerging technologies	How are new and emerging technologies incorporated into provision? What is the position of consumer and mainstream technologies in the provision process for children with disabilities?
4.7.	Outcomes	Are outcomes of AT/AAC systematically monitored and measured? How are outcomes of AT/AAC monitored and by whom? How is the data used to inform planning and provision?
4.8.	Stakeholders	Who are the key stakeholders in the provision process? What is included in the provision process other than supply of products? What tools for the production of accessible learning materials are made available for teachers? Who is responsible for the procurement of accessible digital textbooks?

Personnel

Goal: Professionals in Education, Health and Social Care have the skills, knowledge, attitudes and understanding to provide guidance and support needed to implement AT fully and AAC solutions into practice.

5.1.	Actors	Which workforce(s) provide assistive technology in the country? Who are the main actors that support children with disabilities in educational settings (e.g. teachers, special needs teachers, speech and language therapists, educators, occupational therapists, etc.) How many professionals in each role have received training in the use of AT or AAC? What skills and competencies have been defined for teachers and therapists supporting the use of assistive technology or AAC solutions? What AT and AAC services exist within the country or region to support teachers and therapists? What specific roles do specialist AT and AAC services offer to support schools and professionals? What specific role for specialist services in AT and AAC offer to parents, carers and families? How are AT and AAC services co-ordinated? Is the trained and competent workforce sufficient to address demand for AT/AAC services and products? What plans to expand the workforce or enhance future skills are in place?
5.2.	Initial training	What content related to disability is required of teachers and therapists undergoing undergraduate courses within the country? What content related to Universal design for learning is included at undergraduate level? What content related to inclusive education is included at undergraduate level? What content related to AT/AAC is included in the curriculum at undergraduate levels?
5.3.	Continuing professional development and lifelong learning	Is there continuing professional development and accreditation of teachers, therapists and other stakeholders supporting AT and AAC for children? Who is responsible for programmes and who delivers learning programmes? What content related to AT/AAC is included in the curriculum at undergraduate and postgraduate levels?
5.4.	Role differentiation	Who supports the choice of appropriate AT/AAC for children with disabilities? Who trains the children in the use of AT/AAC solutions? Who designs learning programmes in AT or AAC for learners with disabilities and who delivers these?

5.5.	Training of other Stakeholders	How are communication partners (e.g. parents, peers, other school staff) prepared for AAC and communication? What other training in the use of AT/AAC is available to stakeholders in the country?
5.6.	Online and blended learning	What is the policy for online and blended learning in the areas of AT and AAC? Is funding available to purchase online and blended courses? How are courses in AT and AAC certified and recognised by awarding bodies?

Tool 2. Consensus building

What follows is a list of often heard statements in discussions about AT and AAC policy development. Some are debatable, most are controversial and based on misconceptions or misbeliefs.

If there is no consensus on issues, the risk is that actions aiming at improving the situation of AT Capacity and Access to AT and AAC at any level fail or are less effective. For that reason it is important that AT capacity building interventions are accompanied by information and awareness raising activities that address the most common barriers to AT and AAC use.

The list can be used to inform research into barriers, information and awareness raising campaigns, discussion and focus groups or other means of consensus building.

People

A. Children with disabilities in this country do not have the same rights as children without disabilities.
B. Children with disabilities could best live with their parents. Institutionalisation should be avoided.
C. Services for children with disabilities are sufficiently available throughout the country.
D. The State should do more to support children with disabilities and their families.
E. In case of severe difficulties in communication it is sufficient if the child can express its basic needs.
F. Families should not be involved in defining rehabilitation plans. The doctor knows what is best.

Policy

G. The impact of most current legislation fosters segregation instead of inclusion.
H. Most legislation supporting the social integration of people with disabilities is adequate.
I. Institutionalisation is not necessarily bad if it is based on transparent criteria.
J. Funding for AT should be given directly to the families without intervention from public officials or professionals.

Products

K. The problem is not the availability of the AT but the lack of information on AT.
L. Direct sales from companies to schools or families should be avoided.
M. Creating market incentives is a better strategy for boosting AT use than developing the demand.
N. High tech AAC solutions are to be privileged above low tech because parents prefer them.
O. Rules are not needed to regulate the AT market.
P. A rapid procurement process is not so important as children stay for a long period at school.

Provision

Q. Often AT or AAC adoption fails because the assessment process was not done properly.
R. Very often AT/AAC provision remains stuck in bureaucratic procedures.
S. The choice for AT/AAC at school is a decision of the teachers and parents should not interfere.
T. Adapting educational materials for learners with disabilities requires specialists and cannot be done by the ordinary teachers.

Personnel

U. AT/AAC should be part of the initial training of teachers and therapists.
V. There is a general lack of competence to support learners with disabilities with AT/AAC in schools and other educational settings.
W. Teaching children with disabilities to communicate is first of all the role of the parents.
X. The role and responsibility of schools to support learners with AT/AAC is not clearly defined.
Y. Special schools can obtain better results with AT/AAC.
Z. The main thing for a teacher to know is how AT/AAC can support the learner in developing competences.

Tool 3. The ENTELIS+ self-assessment framework for schools

The following self-assessment tool for institutes of formal education was developed by the ENTELIS network. The network aims to increase the participation of persons with disabilities in the digital society and to close the digital divide.

The self-assessment tool aims to help educational establishments that welcome learners with disabilities³ to assess their current outcomes and to plan improvements in supporting these students in increasing digital literacy and developing digital skills. This includes the use of mainstream Information and Communication Technology (ICT) and specially designed digital Assistive Technologies (ICT-AT). This can only successfully happen if schools fully embrace an inclusive approach to education.

The vision underpinning the tool is that school management provides leadership and has taken ownership of the challenge to achieve ICT integration in inclusive education and equip all students with the digital competencies needed to fruitfully participate to the digital society.

https://www.entelis.net/wp-content/uploads/2020/12/entelis_self_assessment_framework_for_schools_version_1.0_-_2016.pdf

Tool 4. The ENTELIS+ competence framework

A competence framework is a structured overview of learning outcomes describing levels of competence and allowing the definition of progression in learning. Competence frameworks typically serve:

- to assess the training needs of professionals or others (volunteers, etc.) delivering work, taking into account already acquired competencies and the tasks and responsibilities related to the role the person fulfils or will fulfil;
- to assess or self-assess the completeness of one's preparation to perform certain tasks with the associated responsibility;
- to inform the development of learning programs, identifying goals and expected learning outcomes.

Competence frameworks typically distinguish between:

- levels of learning, defining the progression systematically in learning;
- areas of learning, identifying the areas where competence is required;
- types of competence, most of the time in Europe classified as knowledge, skills and attitudes.

In some frameworks, scenario's are added, or examples are provided to help the readers better understand the kind of roles, settings or situations where competencies are needed the developers had in mind.

The ENTELIS+ consortium has developed a competence framework for those supporting the digital inclusion of persons with disabilities. The competencies needed by those supporting persons with disabilities in accessing digital environments seem not to be sufficiently described in the literature. As the ENTELIS+ project was based on developing digital skills of persons with disabilities and those supporting them, and relevant training modules were developed, it seemed a necessary additional step to design a coherent competence framework for educators and trainers supporting learners with special needs.

The use of the framework could be considered for assessing training needs of educational staff.

<https://entelisplus.entelis.net/wp-content/uploads/2022/01/D3.17-ENTELIS-Competency-framework.pdf>



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