


INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR INCLUSION

Malta

1. Policy Frameworks

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

ICT for inclusion falls under the responsibility of both Education Directorates, namely the Directorate for Educational Services and Directorate for Quality and Standards in Education. Within these Directorates, there are established assistive technology (AT) and augmentative and alternative (AAC) practices.

Students who require a specialist form of AT apply for an AT assessment at ACTU. ACTU was originally set up in 2006 and since 2009 it has begun to include speech and language therapists and occupational therapists with specialist knowledge of AT/AAC. ACTU's goal is to ensure that students with complex learning disabilities are assessed for AT/AAC needs. Students are placed on a waiting list until the ACTU core team assesses their needs. A comprehensive AT report is then written and presented to the parents, who in turn present it to the school team. If recommendations for software/hardware for school use have been made, the school team then sends the report to the eLearning Centre. The eLearning Centre is responsible for the procurement of the AT device/system on loan, as long as it is available. When it is not available, the school is notified, and parents or the school may opt to purchase the equipment themselves. The eLearning Centre is responsible for device installation in the classroom. In practice, however, experience has shown that the eLearning Centre is instructed to do its utmost to source and purchase the required device/system, as part of the State's commitment to inclusion.

General training and implementation in the classroom may also be carried out by the eLearning Centre, e.g. for Clicker 5 and Boardmaker software. ACTU implements specific staff training for each child to ensure that the settings and level of use are appropriate. Where ACTU has recommended high-tech AAC devices, parents are advised on how to seek funding from national agencies, including the KNPD Community Chest Fund. AAC implementation is carried out by ACTU in conjunction with the relevant health professionals.

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

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

Current policy is dictated by the Equal Opportunities Act (2000) and the United Nations Convention on the Rights of Persons with Disabilities; in the coming years the latter has to be properly implemented across different strands and priority areas, e.g. Article 21, Article 24.

It is pertinent to point out that the national policy for the implementation of eLearning across all classes from kindergarten to the end of secondary schooling has a clear in-built



element that allows for and promotes inclusion, in the differentiation and personalisation that is increasingly possible through the virtual learning environment and interactive whiteboards in each classroom and laptops for every teacher that are now available in all state schools and are also being made available to non-state schools. The newly-elected government is also committed to eventually making tablets available to learners, significantly increasing the potential for personalised learning and inclusion. All of this is a key component of Malta's Smart Island Strategy, as per [https://www.mita.gov.mt/MediaCenter/PDFs/1_MITA%20Strategic%20Plan%202009-2012%20\(web\).pdf](https://www.mita.gov.mt/MediaCenter/PDFs/1_MITA%20Strategic%20Plan%202009-2012%20(web).pdf)

The Directorates are also starting to actively consider ways of using technology, from MP3s to integrated speech-to-text and text-to-speech software, in order to further enhance learner inclusion in assessment procedures.

1.2 (ii) Access to appropriate ICTs as an entitlement

There is currently no formal legal entitlement in Malta. However, in practice the eLearning Centre addresses all requests for access to ICTs.

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

The Directorates have invested in the provision of training on the use of interactive whiteboards and the virtual learning environment for all state school teaching staff over two school years, from 2011 to 2013. Two specialised groups of support staff, numbering about 40 in all, are also on hand to provide in-class support to primary and secondary school teachers to make best use of these resources.

In addition, the eLearning Centre has always endeavoured to train all educators in schools on generic and specialised ICT equipment prior to its implementation in the classroom.

ACTU also provides training. This is done in one of two ways:

1. General training courses through in-service courses held in July and September each year. ACTU staff are also involved in the training of learning support assistants.
2. Educational staff are provided with training in the classroom to identify further opportunities for the use of AT/ICT/AAC in the context of the school environment. This is tailored to the individual child's needs and the equipment they have access to.

Training for parents in relation to the use of AT/AAC equipment within the home/community is also provided. This includes training in specialised educational software, such as Clicker 6 and Penfriend, and vocabulary packages, such as Grid 2 and Unity.

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

The eLearning Centre is currently involved in a project with the University of Malta and the Malta Council for Science and Technology (MCST) in researching the use of eye-tracking technology in schools and developing a low-cost eye-tracking system for individuals with complex communication/physical needs. An AT specialist from the eLearning Centre is working directly with the University's Biomedical Department to share expert knowledge on the use of eye-tracking technology for students with complex learning disabilities. The project allows the purchase of eye-tracking technology hardware and software to address skills related to joint engagement, fixation, choice-making activities, computer access, communication and environmental control.



The Directorates are currently considering undertaking a pilot project using technology, from MP3s to integrated speech-to-text and text-to-speech software, to further enhance learner inclusion in assessment procedures.

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

There are a number of one-off research projects carried out as a result of Masters studies, but no systematic national exercise as yet.

1.3 Strategic plans for implementing policy on ICT for inclusion

The Curriculum Management and eLearning Department and the Department for Student Services are jointly responsible for the strategic implementation of assistive technology in the classrooms in the context of the new National Curriculum Framework (NCF), which was enshrined in law in February 2013. https://www.education.gov.mt/mediacenter.ashx?file=MediaCenter/Docs/1_NCFBooklet.pdf The NCF explicitly makes inclusion one of the core values of the Maltese educational system.

At present, the Directorates are working on guidelines in the area of ICT for inclusion. These guidelines, once approved at strategic level, will be communicated via all possible modes of communication. Dissemination will be through training sessions conducted throughout the school year. Schools will be asked to contribute and give their feedback on how best this could be implemented.

At present policy decisions on ICT for inclusion are centrally based in the state sector and school-based in the non-state sector. However, it must be noted that in this area the state sector is the de facto national leader.

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

ACTU currently monitors the use of ICT for inclusion on a child-by-child basis. This is done through school visits which ensure that educational staff are knowledgeable about the child's needs in relation to ICT equipment and can use the equipment on an individualised basis. The child's progress in relation to the use of the equipment is also monitored through regular sessions with the ACTU team.

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

- The introduction of specialised ICT at San Miguel Special School in Pembroke;
- The setting up of a section on ICT for SEN within the eLearning Centre;
- The setting up of the Access to Communication and Technology Unit in the Student Services Department;
- The provision of a virtual learning environment and interactive whiteboards in each classroom and laptop for every teacher that are now available in all state schools and are also being made available to non-state schools.

1.6 Current issues in relation to ICT for Inclusion

- Need for more funding in order to purchase AT hardware and software in a timely manner, as well as specialist software/hardware that is not required in large quantities, e.g. Penfriend may never be available from the eLearning Department. Some schools opt to purchase such software so that students will have the necessary access.

- Transition from one class to another, especially in secondary classrooms, may compromise the system's portability, e.g. a laptop or tablet PC may be more functional in such a situation.
- Due to the large number of referrals, ACTU has a waiting list. However, children with physical difficulties, deterioration conditions and children who do not require AAC and can therefore be seen by an occupational therapist are prioritised.
- There continues to be difficulties with the actual inclusion of children who require ICT and/or AAC in the classroom on a day-to-day basis. Teachers rely on the learning support assistants for the implementation of these.

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

Short-term developments:

- Ensuring that the ICT for All Guidelines for schools are disseminated and discussed firstly at strategic and then at school level and discussed in school development plans. This will then inform the development of an ICT for Inclusion policy.
- Ensure that the on-going training programme for school administrators and educators on the use and benefits of assistive technology is functional.
- Ensure that the whole process, from identification of needs to assessment and provision of equipment, is flawless and as efficient and effective as possible so students do not have to wait excessively to be given some form of technology.
- An inclusion in assessment strategy needs to be developed and implemented. This includes the use of MP3s as already indicated, and a common reading and writing software program to be used at all levels throughout students' lifelong learning journey for those who present with literacy difficulties and who are at risk of social exclusion.

Long-term plans:

- A funding programme is secured for all students who can benefit from the use of assistive technologies in the classroom. There should not be duplication of resources in relation to human or/and technological resources.
- Multimodality offered by ICT supports students with various types of intelligences and/or challenges, not necessarily those with diagnosed difficulties. Students with different nationalities/languages are a case in point.

2. Country Practice

This information was provided by Marica Gatt (ICT SEN Support Teacher, eLearning Centre, Directorate for Educational Services); May Agius, Sharon Borg, Elena Zahra, Liliana Agius and Cathleen Mazzacano D'Amato (Access to Communication and Technology Unit (ACTU), Student Services Department, Directorate for Educational Services) and Alexia Zammit (Teacher, Autism Spectrum Support Team, Student Services Department, Directorate for Educational Services).

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

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

The National Curriculum Framework, which was recently launched, now allows for differentiation of different subjects of the curriculum with differentiated learning outcomes



based on a ten-point scale (Level 1 – Level 10). Exemplars of the use of technology especially for Level 1–4 are now available for Form 1 and Form 2 curricula. See:

<http://curriculum.gov.mt/en/Curriculum/Form-1/Pages/default.aspx>

and <http://curriculum.gov.mt/en/Curriculum/Form-2/Pages/default.aspx>

While this framework is now in place, the use of ICT to access all curricular subjects (for those who require this) continues to be an issue, particularly in secondary schools where device portability is an issue.

2.1 (ii) Access to appropriate ICTs as an entitlement

Generic software, such as Clicker 5 and Boardmaker version 6, is more widely available in mainstream schools. Specialised hardware, such as touchscreens, coloured keyboards, adapted mice, is now more accessible in schools.

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

The eLearning Centre is responsible for training on the use of generic and specialist ICT. The centre offers free year-round professional training in the use of ICT, including professional development sessions and inset courses.

ACTU offers training, much of which is hands-on and child-specific. Other training is offered.

We have strong anecdotal evidence that teachers' and other professionals' competences in using ICT to promote learning in inclusive settings have indeed improved, but there is no formal and on-going data gathering on this.

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

The eLearning Centre/ACTU has been involved in various projects with NGOs, including the Foundation for Information Technology Accessibility (FITA), in developing the Maltese Speech Application Programming Interface Text-to-Speech Engine, a three-year project funded by the European Regional Development Fund. This was also in partnership with the Society of the Blind and Visually Impaired. The eLearning Centre/ACTU is also involved in a multi-stakeholder approach with other entities to promote the use of ICT research in the development of interactive CDs for key word signing projects, including interactive activities to address the Maltese language.

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

No information is available on this issue.

2.2 ICT to promote learning in inclusive settings

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

The eLearning Centre utilises the eLearning platform to ensure that the use of ICT in an inclusive set-up is appropriately disseminated.

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

There are various university courses which promote the use of ICT for inclusion. One of the courses actually addresses the use of 'learning technologies in the early-years classroom', for instance.

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

The eLearning Centre offers the expertise of two support teachers, specialised in AT, who support teachers in the classroom to ensure that ICT is positively and effectively promoted in the classroom.

ACTU offers more individualised support to teachers/learning support assistants.

Children who access the Resource Centres (formerly Special Schools) are accompanied by their learning support assistants, who can then benefit from working with staff who have more experience in the use of ICT for children with special needs.

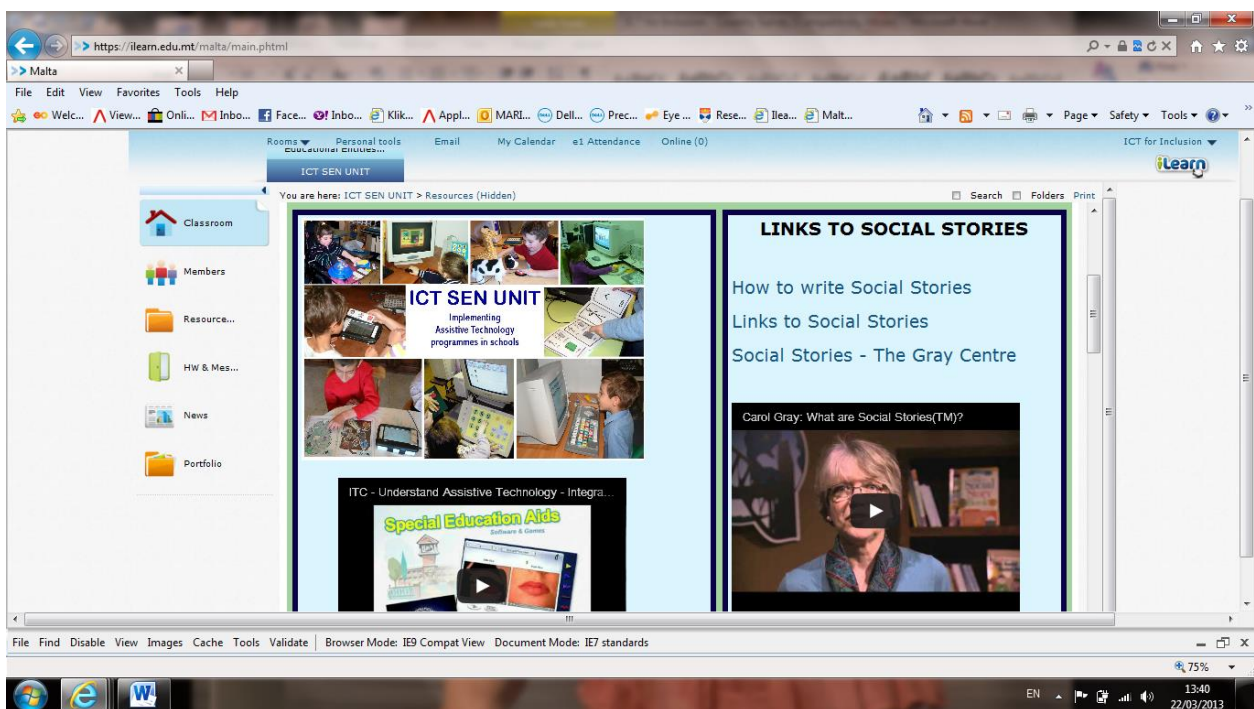
2.2 (iv) Important information sources about new developments, hardware and software products and ideas for using ICT to promote learning in inclusive settings

- Access to using ICT to promote differentiated learning:

<http://curriculum.gov.mt/en/Curriculum/Form-1/Pages/default.aspx>

and <http://curriculum.gov.mt/en/Curriculum/Form-2/Pages/default.aspx>

- Access to new hardware/software, information, free resources, etc.:
<https://ilearn.edu.mt/malta/main.phtml>



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

This is related to funding opportunities, access and opportunity barriers. Access barriers specifically relate to:

- 1) students excluded from the classroom environment and working on the AT in the resource room so as not to disturb the other students in the classroom;
- 2) provision of AT equipment is poor, so children may only have access to the AT they need in Resource Centres.



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

The qualitative level of training and one-to-one sessions in relation to the support provided by the personnel at the eLearning Centre. Learning support assistants and educators find that the in-house support in the classroom provided by ACTU is more conducive to learning. This can reap benefits for the students who do not need to be excluded from the classroom to work on their AT needs.

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

Guidelines are being developed by all stakeholders so that a more strategic level is developed to ensure that all will be working on common short/long-term developments.