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CITO Policy Impact Evaluation Report

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Table of Contents

Glossary

CEDEFOP	European Centre for the Development of Vocational Training
CITO	Check In, Take Off
COVID	Corona Virus Disease
CVET	Continuing Vocational Education and Training
DES	Department of Education and Skills (Ireland)
DRLLE	Directorate for Research, Lifelong Learning and Employability (Malta)
EU	European Union
EC	European Commission
EQF	European Qualifications Framework
ETBI	Education and Training Boards Ireland
FET	Further Education and Training
ICT	Information Communication Technology
MQF	Maltese Qualification Framework
NALA	National Adult Literacy Agency
NFQ	National Framework of Qualifications (Ireland)
NGO	Non-government organisation
NKR	Norwegian Qualification Framework
PES	Public Employment Service
QQI	Quality and Qualifications Ireland
SOLAS	An tSeirbhís Oideachais Leanúnaigh agus Scileanna
VET	Vocational Education and Training
WIT	Waterford Institute of Technology

1. Introduction

The CITO project is an Erasmus+ Key Action 3 policy experimentation project in the fields of Education and Training led by high level public authorities (https://citoproject.eu/). The CITO project specifically addresses Step 1 of the European Commission's 2016 *Council Recommendation on Upskilling Pathways* in improving adult's literacy, numeracy and digital skills and assisting adults with low basic skills to engage in accessible pathways (European Commission, 2016). The research component of the CITO project is comprised of three deliverables: A Mapping Report, A Research Report, and A Policy Impact Evaluation Report, based on the three phases of the study. Three partner countries are involved in the project: Ireland, Malta and Norway, of which there are five partner organisations (Table 1):

Name of organisation	Type of institution	Country	Role in the project
Ministry for Education and Employment – DRLLE for Research, Lifelong Learning and Employability (DRLLE)	Public authority / Ministry	Malta	Coordinator
Fønix AS	Delegated body of public authority / Ministry	Norway	Partner
National Adult Literacy Agency (NALA)	Delegated body of public authority/ Ministry	Ireland	Partner
Waterford Institute of Technology (WIT)	Research	Ireland	Partner
Education and Training Boards Ireland (ETBI)	Network of public authorities	Ireland	Partner

Table 1: Organisation, institution, country and role in the CITO project

The overall aim of the CITO project, is to assess the impact of the use of the CITO Skills Checker, a scalable self-assessment skills audit tool for adults with literacy, numeracy and digital difficulties to determine whether it encouraged or motivated adults with low basic skills to return to further education or training. The CITO project is positioned within the adult education sector in the three partner countries. The project is based on the principle of testing a policy intervention on a small population to evaluate its efficacy for scaling up in the future (Casey, O'Leary and Coghlan, 2018; J-Pal Europe, 2011; Kelly and Perkins, 2012).

This report is one of three reports produced by Waterford Institute of Technology. The purpose of this third report is to collate and analyse contributions from partners in the three targeted EU countries in relation to policy experimentation with specific reference to education policy relating to adult education and adult basic skills in each partner country. Each of the project partners were required to review the impact of policy on the CITO Skills Checker Tool and to evaluate implications for future policy considering the results of the CITO project.

The purpose of the CITO Skills Checker tool is to enable adults with low levels of education to independently carry out an initial self-assessment of their literacy, numeracy, and digital literacy skills online in order to orientate them towards appropriate learning opportunities and progression pathways. The objectives of the CITO project are:
1. Develop and introduce an online independent Skills Checker (i.e. the CITO Skills Checker tool) to be tested with adults with low basic skills, as well as with stakeholders who will introduce the tool to their client groups in each country.

2. Translate and adapt the English version of the CITO Skills Checker to two additional languages (Maltese and Norwegian), pilot the new versions, and create a Handbook on Linguistic and Cultural Adaptation of the CITO Skills Checker.
3. Identify best practice in the promotion and adoption of a Skills Checker tool for people with low literacy, numeracy and digital skills in Europe;
4. Assess how best to transfer scalable online assessment of literacy, numeracy and digital skills for use by more people with basic skills needs and more stakeholders;

The level of qualifications that the CITO project is addressing on the three national and the European qualification frameworks is displayed in Table 2:

Irish National Qualification Framework (NFQ)	Maltese Qualification Framework (MQF)	Norwegian Qualification Framework (NKR)	European Qualifications Framework (EQF)
Levels 1 – 4	Core Competency Level and Levels 1 – 3	Levels 2 - 3	Levels 1 - 3

Table 2: National and European qualification framework levels pertinent to CITO project

Table 3 displays the six underlying hypotheses central to the CITO project and the CITO project's evidence-based responses to the hypotheses:

Hypothesis		Response
i.	There is a need for a method of independent skills assessment for adults with low basic skills.	CITO has delivered a stand-alone independent tool to assess basic skills amongst adults. The tool is available to other European member states for language and cultural adaptation.
ii.	Against the proposed ideal of independent assessment available to people, a mapping exercise and survey of what is available will clarify the extent of the gap.	The results from CITO clearly identified the gaps and made recommendations to address the identified gaps from Phase 1.
iii.	Stakeholders will use an innovative testing tool if it is efficient and user friendly.	The evidence from the data collection phase (Phase 2) illustrated the adopted use of the innovative tool and its user-friendly attributes.
iv.	There is a need for a method of independent skills assessment for adults with low basic skills.	It is clear from our stakeholder engagement and outreach that the strategy to promote the tool is well underway.
v.	Research will be able to show which settings are conducive to good use of the tool	The setting conducive to good use of the tool have been clearly explained: - Independent tool with support available if required - Face to face settings, over the telephone and online. - Access to local information and adult guidance services. - As part of the process in engaging with a FET/VET programme.
vi.	Using the Skills Checker tool is beneficial to people with literacy and numeracy needs to take the next step in exploring their learning opportunities.	The results and impact of the CITO Skills Checker clearly highlight the increased motivation levels among adults with literacy and numeracy needs to explore appropriate learning opportunities. It also outlines other opportunities for adults to upskill. Refer to Phase 2 report for specific details.

Table 3: Hypotheses of the CITO project

The research element of the CITO project examined the use of skills audit tools generally, and the development and usage of a specific online independent tool, i.e. CITO Skills Checker, by adult participants and stakeholder organisations in the three countries. The research methodology, which used a pragmatic and convergent sequential mixed methods design (Creswell and Plano Clark, 2017; Tashakkori et al., 2021), was conducted over the following three consecutive phases between 2019 and 2021:

i.   In Phase 1, an initial mapping of current practice in the use of skills audit tools with adults and stakeholder organisations was undertaken through desk-based research (literature review) and two quantitative surveys with the target groups in the three countries. The recommendations in Phase 1 (see https://citoproject.eu) contributed to further developments in the design of the CITO Skills Checker prototype for Phase 2 of the project.

ii. Field research was conducted in Phase 2 on the use of skills audit tools generally, and the CITO Skills Checker prototype specifically, in the three partner countries. The findings and recommendations from this phase further informed the refinement of the CITO Skills Checker for future use by the stakeholder organisations in the three countries (see https://citoproject.eu).

iii. The findings of Phases 1 and 2 have been collated to evaluate the overall research findings in the context of the aim and hypotheses of the CITO policy experimentation project in this final Policy Impact Evaluation Report.

The research has documented the contexts in which the CITO Skills Checker is conducive to good use, made recommendations on its design for future use, and informed the relevant stakeholder organisations about its prospective scalability within the policy context of the three countries.

1.1 Policy Experimentation: European and National Context

At a European level, the CITO policy experimentation project is responding to the request for Member States to provide coherent pathways and increased access and participation opportunities for adults in Continuing Vocational Education and Training (CVET) (CEDEFOP, 2020a,b; European Commission, 2015, 2016). Member States now need to consider how they will align the *Council Recommendation on Upskilling Pathways* with their education, training, and employment strategies (European Commission, 2016). The CITO project is specifically addressing Step 1 of the three interrelated steps of *Upskilling Pathways* to improve the prospects of adults with low levels of educational qualifications and enhance their literacy, numeracy, and digital skills (ibid). The aim of the CITO Skills Checker is to provide for:

1.   Individual skills assessment, i.e., skills audit, to identify current skills and future skills needs;
2.   Identification of tailored and flexible learning opportunities with mentoring and guidance.

The CITO project also aims to identify the policy environment in each partner country, identify the specific policies that may assist in supporting adults with low basic skills, whether the policy environment supports the use of a skills checker tool for adults with low basic skills and whether specific policy instruments are impacted by the findings of the project.

Using a policy experimentation approach, the researchers attempted to assess whether the use of an independent online tool to assess skills, would encourage or motivate adults with low basic skills to engage with education or training. The experimentation approach included the assignment of groups of adults with low basic skills to an intervention (i.e. the CITO Skills Checker tool). The project employed a treatment group (adults who used the CITO Skills Checker) and a control group (adults who did not use the CITO Skills Checker). The assignment of adults to the different groups ensured that on average there were no underlying differences between the intervention 'treatment' group and the comparison 'control' group.

2. CITO Policy Considerations

2.1 CITO Partner contextual overview

Each partner country has a specific policy context and the relevant policy environment differed significantly between the partner countries. These differences informed national contexts relating to adult, further and vocational education; provision of national support services; staffing and professional development in each country for adult education specifically addressing adults with low basic skills; the role of stakeholder organisations in each partner country; the national strategy for education in each country and whether there was a national policy or strategy supporting adult literacy, numeracy or digital skills. The researchers found that some countries had national frameworks and quite developed policies supporting national services addressing low basic skills. Ireland, for example, introduced a new national 10-year strategy addressing Adult Literacy, Numeracy and Digital Skills in 2021 (GOI, 2021). This followed a number of national policies introduced owing to a significant policy development in 2000, the *Learning for Life* (DES, 2000) policy, which was a new policy recognising the need to address adult education for equality and broader access purposes.

For Malta, the policy environment was less mature with the very recent introduction of a new policy for Lifelong Learning in 2020 and a consultation process for a new national strategy for literacy in Malta and Gozo commenced in 2021. This meant that many of the required national support services and suitably qualified staff may not yet be in place, making a policy impact assessment more difficult.

Norway has an established national policy context and differed from the other two partners in that the implementation of policy in Norway (through the provision of support services to adult learners and employer organisations) operates quite differently with many private providers acting as the conduit for policy implementation.

This is of interest in general observations about using policy experimentation as a means of assessing the impact of specific educational policy initiatives as implementation through a national state service may (or may not) differ from implementation via a private provider. Aspects of implementation that may require consideration here include staffing, training and professional development of tutors and basic skills teachers.

2.2 CITO approach to Policy Impact Evaluation

The aim of this CITO policy experimentation research project is to translate an evidence-based intervention, i.e. the CITO Skills Checker, into a scalable self-assessment skills audit tool for adults with literacy, numeracy and digital difficulties in the three partner countries. It is based on the principle of testing a policy intervention on a small population to evaluate its efficacy for scaling up (J-Pal Europe, 2011). In order to evaluate and contextualise the findings from Phase 2 of the study, an evaluation methodology based on Pawson and Tilley's (2004) Realist Evaluation was adopted in this final phase of the study. Realist evaluation concentrates on the nature and understanding of programmes (or interventions such as the CITO Skills Checker), how they work, and the methods needed to research and evaluate them (ibid). Realist evaluation is commonly used in health care and educational settings for clinical simulations and new educational technology applications (McFaul and Fitzgerald, 2019).

Realist evaluations seek to understand *'What works for whom in what circumstances and in what respects, and how?'* (Pawson and Tilley, 20024, p.2). Realist evaluation methods concentrate on the interaction between mechanism-context-outcomes. The mechanism is the programme that brings about any effects for users. The particular context relates to the conditions and locations in which the mechanism is operating. The outcome-patterns comprise the intended and unintended consequences of the mechanism in different contexts (ibid). However, as programmes are embedded, active and open systems, outcomes are not necessarily causal but contingent on the conditions and contexts (e.g. structural) in which they are offered (ibid).

To help inform this Policy Impact Evaluation Report, the three partner countries were requested to consider the five recommendations' put forward in the Phase 2 Research Report, paying particular attention to existing policies in their own countries. The five recommendations are:

1. Increase the database of courses on the CITO Skills Checker to cater for a range of adults with diverse skill levels; and include appropriate accredited and non-accredited options for members of the Target Group (adults aged 25 and over with a highest educational attainment of EQF Level 1-3.)
2. Ensure that information regarding access to education and training information services, and general public adult guidance services is visible to users of the CITO Skills Checker.
3. Provide access to additional supports, if required by users, to engage effectively with the CITO Skills Checker, e.g. in person, telephone, online service.
4. Consider the development of relevant language versions of the CITO Skills Checker, particularly in countries where there is more than one national language.
5. Ensure that the readability and pace of the content of the CITO Skills Checker (i.e. narrative and visuals) is accessible for members of the target group, including those with diverse learning needs.

The analytical approach involved the partners undertaking three steps:
1. Identify relevant policy and strategy documents in their country.
2. Summarise the impact current policy has had on the application of the CITO Skills Checker in their country.
3. Identify gaps between the current policy and the research recommendations and suggest implications for future policy in their country.

The next section addresses the contributions from the three project partners in relation to the policy implications of and for the use of the CITO Skills Checker in their individual countries.

3. Contributions from Project Partners

To date, a number of Member States have already commenced their own national implementation measures of the *Upskilling Pathways* and introduced strategies to support the upskilling and reskilling of adults, including Ireland and Malta (European Commission, 2019). Nevertheless, there are also ongoing challenges regarding the core elements of Upskilling Pathways, i.e., scale, the three basic skills, coherent pathways with the three steps, outreach, guidance and support measures, co-ordination, stakeholders, and sustainability (ibid). A key issue is that in some Member States the three basic skills of literacy, numeracy, and digital skills, which need to be embedded in skills assessment, are not being specifically addressed or, in some cases, are being denoted as vocational and job skills for employability (ibid).   This has implications for the three partner countries in the CITO project in terms of them relating *Upskilling Pathways* to their national policy priorities.

3.1 Ireland

This section will address the policy implications for the Irish context in relation to the five key findings from Phase 2 of the study.

In Ireland, increasing the range of opportunities for adult learners, particularly for those with less than upper secondary education, has been a policy priority since 2000 (Department of Education and Skills, 2000). A key measure has been the Take the First Step Programme, operated by NALA, to support the provision of education and training to adults with lower levels of education and basic skills. Additionally, the FET Strategy 2020-2024 (Solas, 2020) Strategic Priority of Inclusion also commits to literacy and numeracy with emphasis on digital skills. Although there is no national adult literacy curriculum, there are national standards for adult literacy on the Irish National Framework of Qualifications (NQF) Levels 1 to 3 (Curtin, Hall, Kennedy and Shiel, 2016). Several cross-departmental policies also have some provisions for adult literacy, numeracy and digital skills development, primarily within the context of Government employability measures (DES 2016a, b; Government of Ireland, 2016; NALA, 2020). Aligning Further Education and Training (FET) with labour market needs has been a priority of recent policies, along with social inclusion and social sustainability. The *Adult Literacy for Life* (ALL) strategy is a 10 year adult literacy, numeracy and digital literacy strategy, launched in 2021 to reinforce the actions of cross-government, cross-society initiatives including the Roadmap for Social Inclusion 2020-2025, Pathways to Work 2021-2025 and Healthy Ireland Strategic Action Plan 2021-2025. The *Adult Literacy for Life* strategy facilitates Ireland in aligning with the social and economic goals of the EU (GOI, 2021). This strategy acknowledges Ireland's literacy challenges and brings together overall resource co-ordination, political leadership, cross-government approaches, and a national, regional and local focus. The policy intends to decrease the share of adults in Ireland with unmet literacy needs from 18% to 7% over a ten year period to 2031. Further, it intends to decrease the share of adults in Ireland with unmet numeracy needs (Level 1 or below) from 25% to 12%. Finally, it aims to decrease the share of adults in Ireland without basic digital skills from 47% to 20% (GOI, 2021).

3.1.1 Enhanced range and access to education opportunities
Increase the database of courses on the CITO Skills Checker to cater for a range of adults with diverse skill levels; and include appropriate accredited and non-accredited options for members of the Target Group (adults aged 25 and over with a highest educational attainment of NFQ Level 1, 2, 3 or 4.)

Relevant policy
In Ireland, this is reflected in the Irish Government's (2020) *Programme for Government* and the Department of Education and Skills (2016) *National Skills Strategy 2025* where a commitment to develop innovative and collaborative approaches to lifelong learning and the development and promotion of flexible learning opportunities is laid out.

The SOLAS (2014) *Further Education & Training Strategy, 2014-2019*, made a commitment to develop a national FET programme database system that was simple to navigate, and provided up-to-date accurate listings of FET programmes. This database is now in existence and can be found at: www.fetchcourses.ie. FETCH courses provides real-time access and information to all SOLAS funded accredited courses that are currently open for registration.

The SOLAS (2020) *Future FET: Transforming learning; The National Further Education and Training (FET) Strategy 2020-2024* builds on this initial objective through the Future FET Strategic Framework, which highlights the following strategic priorities:
• Consistent Learner Support: Provide a central resource for learner support services to service all ETB FET activity, ensuring all learners are supported in a consistent manner, with a universal design approach underpinning learning development and delivery.
• Flexible Learning Opportunities: Be available all year-round and offer flexible and technology enabled opportunities that can be availed of by a diverse array of potential learners, including those in employment.
• Access Pathways: Support a learning pathway from a network of FET providers offering Level 1 to 4 provision.

This Strategy also noted that despite many different information resources, FET also lacks a good centralised single 'go to' IT portal that can offer more accessible information and advice without the need for face-to-face contact (SOLAS, 2020, p.54). Alongside FETCH (https://www.fetchcourses.ie/courses/support) and NALA support https://www.nala.ie/free-courses/ a number of alternative databases, information and resource hubs exist to signpost learners to relevant course information and guidance including:

• Qualifax
• One Step Up
• Careers Portal
• Libraries Ireland

The strategy highlighted that FET must support the development of such a resource as recommended by the recent Government Review of Career Guidance.

Government of Ireland (2021) *Adult Literacy for Life: A 10-year Adult Literacy, Numeracy and Digital Literacy Strategy* also highlighted the need for an immediate and simplified entry point to access literacy support through the introduction of a 'new one-stop-shop'. This strategy plans to streamline services so that all informal and accredited, private and public, onsite and online digital skills opportunities will be gathered in one place, link to online resources and also provide clear access routes to securing advice and support.

Current policy implications on the application of CITO Skills Checker

The link between unmet literacy needs and disadvantage is highlighted in government policy as indicated in the ALL strategy. Current and future policy implications for the CITO Skills Checker should reflect CITO's potential to mitigate social exclusion and disadvantage. The CITO Skills Checker aims to create an environment that builds the confidence of the user by acknowledging the skills that they already have, motivating the user to take the next step in achieving their goal, and signposting the user to relevant online and face-to-face learning opportunities. To ensure the long-term sustainability of the Skills Checker, initial research centred on leveraging a national and centralised database of flexible learning opportunities that could be plugged into the backend of the tool.

The FETCH Courses database has an API plugin functionality, which the CITO Skills Checker developers had hoped to utilise so that users of the CITO Skills Checker in Ireland could access real-time information about local, regional and national FET programmes. Due to the configuration of the FETCH Courses database and the API functionality this unfortunately was not possible and a manual learning opportunities database was created. However, recommendations have been shared with SOLAS and ETBI in relation to these technical considerations. The new database included local and face-to-face learning opportunities that were pulled from the FETCH courses database, as well as online and guidance service and course options that were not available on FETCH Courses.

Implications for future policy

Current policy reflects the gaps that exist in Ireland for learners to access information on a broad range of flexible and non-accredited learning opportunities. It has been identified that there is no centralised single 'go to' IT portal, which can offer more accessible information and advice without the need for face-to-face contact. Currently, course information can be accessed from a number of different databases such as FETCH courses and Qualifax, however there is a need for the consolidation, standardisation, and expansion of these existing databases into an accessible and learner-centred 'one-stop-shop' that includes a wide range of flexible accredited and non-accredited learning options. Whilst the operational objective might develop a single 'go to' IT portal it is clear that the related policy integration is challenging due to the existence of separate institutions for different educational provision. The following paragraph provides recommendations in relation to the viability of this provision.

The implementation of the 'one-stop-shop' will have broader implications for policy implementation and coordination and will require:

- A collaborative and integrated, multi-stakeholder, cross-Government approach to ensure adequate funding, resource planning, capacity building, coordination, and effective partnership structures at national, regional, and local level.
- The formulation of a shared understanding, agreement, and consistent approach in terms of what information and data should be available to the learner on the proposed one-stop-shop, how it should be presented, and what support services and resources should be made available to support learner engagement.
- A comprehensive review and mapping of all current databases and information resource hubs for learners. This feeder pipeline would need to be initiated at Government level to ensure compliance for accuracy.
- All planning, research, and design strategies to actively involve the learner. All future information systems should be co-designed through an inclusive User Experience (UX) design process.
- A review of current data architecture, governance, quality assurance, and information systems strategy. This will ensure that technically compatible systems can be designed, managed and future proofed. A centralised approach to the design of data systems will eliminate data silos, reconcile competing data sets, reduce the inefficiencies caused by inaccurate or incomplete data, and streamline information for learners.

Flexible API functionality will also allow third parties to leverage this data and provide learners with access to a wider range of flexible real-time learning opportunities, including both accredited and non-accredited options.

3.1.2 Provision of standardised pathways for the provision of education, training, and guidance services
Ensure that information regarding access to education and training information services, and general public adult guidance services is visible to users of the CITO Skills Checker.

Relevant policy

SOLAS (2014, 2020) Strategy documents reveal the important and critical role that education and training information services and guidance services play in facilitating lifelong learning pathways. They note that the nature and quality of this guidance varies and a more consistent and integrated approach is required, which ties into the overall strategic commitment to provide consistent learner support. This also reflects policy at an EU level, the European Commission's (2016) *Council Recommendation on Upskilling Pathways* highlights the need to provide guidance and/or mentoring services to support learners' progression through all steps of the upskilling process.

The Department of Education and Skills (2016) *National Skills Strategy 2025* sets out an objective to engage more people more across Ireland in lifelong learning and references the need for better career guidance and careers information leading to more appropriate study choices. More recently, under Pillar 4 in the Government of Ireland's (2021) *Adult Literacy for Life Strategy*, a commitment was made to the creation of person-centred pathways. It was acknowledged that every learner with literacy support needs will require support interventions, assistance and assessment tailored to their individual goals. The literacy support system must accommodate formal and informal learning, with clear pathways and a clear purpose for learners. The Strategy highlighted the importance of the adult guidance and information service and the adult literacy service within ETBs in supporting and linking people to the supports that they need. Ongoing guidance and information are positioned as a vital component of ensuring responsive and flexible learning pathways meet people's current and future needs.

Furthermore, the Government of Ireland's (2021) *Adult Literacy for Life Strategy* calls for an immediate and simplified entry point to access literacy support through the introduction of a 'new one-stop-shop'. As previously noted a one-stop-shop approach for collation of available educational opportunities needs to be inclusive of explicit supports. This one-stop-shop will include clear and visible access routes to securing advice and support, which is currently accessible through a number of different resources, including fetchcourses.ie, NALA.ie, OneStepUp.ie, gov.ie, and Adult Literacy for Life website. This will be accompanied by a major national, regional and local campaign around literacy awareness and the supports that are available to help people with literacy issues, using multiple media channels and reinforced by stakeholders at national, regional and local level.

The Universal Design for Learning (UDL)[1] framework's use is recommended in the *'Adult Literacy for Life'* Strategy and may be considered relevant here in terms of how education and training information services, and general public adult guidance services information are visible and accessible to learners. UDL is a set of principles for curriculum development that give all individuals equal opportunities to learn, including Students with Disabilities. UDL aims to improve the educational experience of all students by introducing more flexible methods of teaching, assessment and service provision to cater for the diversity of learners in our classrooms. Additionally, UDL principles were applied to the design of the CITO Skills Checker. The CITO

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1   https://www.cast.org/impact/universal-design-for-learning-udl

Skills Checker tool will be used in such a way as to facilitate multiple means of engagement representation and expression. The guided use of the app will facilitate a learner-centred approach where learners' needs and concerns are foregrounded.

Current policy implications in relation to the application of CITO Skills Checker

The CITO Skills Checker signposts the user to relevant online and face-to-face learning opportunities. In designing this output, consideration was given as to what information would be made available to the user. All learning opportunities within the tool have contact information with regards to the course provider and taking that next step. This includes phone, email and website information. Currently, guidance and information services are available in every ETB for learners participating in ETB courses and this can be accessed through the learning opportunity information page.

Implications for future policy

The implementation for future policy implementation and coordination will require:
- A collaborative and integrated, multi-stakeholder, cross-Government approach to ensure adequate funding, resource planning, capacity building, coordination, and effective partnership structures at national, regional and local level.
- The formulation of a shared understanding, agreement and consistent approach in terms of what information and data should be available to the learner on the proposed one-stop-shop, how it should be presented, and what support services and resources should be made available to help support learner engagement.
- All planning, research and design strategies to actively involve the learner. All future information systems should be co-designed through an inclusive UX design process.
- The inclusion of UDL and plain language guidelines in the design and delivery of service provision and communication strategies.

3.1.3 Requirement for accessible support services to complement the tool
Provide access to additional supports, if required by users, to engage effectively with the CITO Skills Checker, e.g. in person, telephone, online service.

Relevant policy

Irish Government and FET strategy is committed to implementing consistent learner support and building person-centred pathways, as referenced above. This involves providing learners with access to additional supports and further resources to take the next step in accessing support and services. Current strategy is looking to develop a consistent, centralised approach and information resource hub that will be able to support the learner in identifying their needs and signpost them to relevant learning and training opportunities.

The Government of Ireland's (2021) *Adult Literacy for Life Strategy* notes that the two key barriers to engagement with literacy support services: lack of awareness of supports available and social embarrassment. It commits to the creation of proactive local services and the development of cross-agency communications and access points at the local level, alongside establishing of local helplines and appointment of learner champions and peer mentors. There is a commitment to create a one-stop-shop to centralise all the relevant information and advice on literacy, as well as to expand the NALA Freephone service.

The 2021 Strategy also sets out a number of objectives in terms of continued professional development for practitioners to ensure that skills remain relevant and can respond to the rapidly evolving landscape. It also commits to providing upskilling supports for all those who deal directly with people in need of support, including the development of 'bite-sized' courses, supports and capability assessment tools to help develop these skills.

Current policy implications on the application of CITO Skills Checker

In the design and development of the CITO Skills Checker consideration was given to what relevant information and support was required to help users engage effectively with the CITO Skills Checker. The following actions have been implemented by the CITO project:

- The learning opportunities database information model includes a wide range of contact information to support the user in taking that next step via phone, email or signposting them to further information online. Where possible, the user is given the opportunity and choice to access literacy services via a method that they are most comfortable with.
- User guides and walkthroughs have been produced to assist both users and frontline staff in engaging with the CITO Skills Checker. This is also accompanied by the CITO Skills Checker Communications Toolkit, which provides organisations with a how to use guide as well as offline and online materials to engage users with the tool. These assets such as flyers and posters can also be adapted to include contact details of local in person and phone supports.

Implications for future policy

The implementation of current policy will have broader implications for policy implementation and coordination and will require:

- A collaborative and integrated, multi-stakeholder, cross-Government approach to ensure adequate funding, resource planning, capacity building, coordination, and effective partnership structures at national, regional and local level.
- The formulation of a shared understanding and agreement in terms of what information and data should be available to the learner on the proposed one-stop-shop, how it should be presented, and what support services and resources should be made available to help support learner engagement.
- Resource planning and funding to support training and service delivery.
- Ongoing training and development of frontline staff.
- A comprehensive review of current supports and resources with a view to expanding on or widening access to current supports and ensuring consistent learner support.

3.1.4 Localisation for implementation
Consider the development of relevant language versions of the CITO Skills Checker, particularly in countries where there is more than one national language.

Relevant policy

The Government of Ireland's (2003) *Official Languages Act 2003* provides for the preparation by public bodies of a language scheme detailing the services which they will provide: through the medium of Irish, through the medium of English, and through the medium of Irish and English. In accordance with this Act many documents are published in both Irish and English simultaneously such as public policy proposals.

There is no specific mention of the provision of literacy services for native Irish speakers within the Irish policy context, until the recently published Government of Ireland (2021) *Adult Literacy for Life* Strategy. This strategy states that the literacy needs of native Irish speakers must also be accommodated. A development programme should be rolled out to improve the accessibility of Government services for native Irish speakers and expand communication by public sector bodies in Irish. It suggests potential initiatives such as the use of bilingual information, forms etc. with both languages "side by side" rather than separate documents.

Current policy implications on the CITO Skills Checker

English and Irish (Gaeilge) are the official languages in the Republic of Ireland. English however, remains the primary language on the island of Ireland. The figures from Ireland's Census 2016 show 73,803 people, of the total population of 4.75 million, speak Irish daily. This equates to 1.7 percent of the population. The CITO Skills Checker is a prototype and as such was designed and developed in English. However, it was also designed as a scalable solution, which will enable the future adaptation of the CITO Skills Checker tool and Communications Toolkit into Irish.

Implications for future policy

The implementation of current policy will have broader implications for policy implementation and coordination and will require:

• Commitment and investment to research the unmet literacy needs of native Irish speakers: Future policy will depend on investing in and conducting research to garner an overall understanding of the unmet literacy needs of native Irish speakers in order to improve and expand upon current service provision. Further research will also support the implementation of current policy and strategy in this area.

• A collaborative, integrated, multi-stakeholder, cross-Government approach to ensure adequate funding, resource planning, capacity building, recruitment, coordination, and effective partnership structures at national, regional, and local level.

• The formulation of a shared understanding, agreement, and consistent approach in terms of what information and data should be available to the learner, how it should be presented, and what support services and resources should be made available to help support learner engagement.

3.1.5 Need to reflect inclusivity and diversity in the provision and usability of online tools
Ensure that the readability and pace of the content of the CITO Skills Checker (i.e. narrative and visuals) is accessible for members of the target group, including those with diverse learning needs.

Relevant policy

The Centre for Excellence in Universal Design was established by the National Disability Authority (NDA) under the Disability Act 2005 (GOI, 2005). It is dedicated to enabling the design of environments that can be accessed, understood and used regardless of a person's age, size, ability or disability. One of the centre's three key areas of work is on ICT and technology, and it developed the National IT Accessibility Guidelines for ICT products, along with an IT Procurement Toolkit. In 2017, in conjunction with the Department of Public Expenditure and Reform (DPER), it published the *Customer Communications Toolkit for the Public Service — A Universal Design Approach*.

The adoption of a Universal Design for Learning (UDL) approach in shaping future provision is a recurring theme throughout recent Irish strategy, including the following:

• SOLAS (2014) Further Education and Training (FET) Strategy 2014-2019, Dublin: SOLAS.
• Department of Education and Skills (DES) (2016) National Skills Strategy 2025; Ireland's Future
• SOLAS (2020) Future FET: Transforming learning; The National Further Education and Training (FET) Strategy 2020-2024
• Government of Ireland (2021) Adult Literacy for Life: A 10-year Adult Literacy, Numeracy and Digital Literacy Strategy

At EU level, the EU Web Accessibility Directive (2016/2102) requires public bodies to ensure that their websites and apps are accessible to persons with disabilities. In 2019 the European Standards, *BS EN 17161:2019 Design for All - Accessibility following a Design for All approach in products, goods and services; Extending the range of users* was published.

Irish Government commitments on the accessibility of services are detailed in the National *Disability Inclusion Strategy 2017–2021* (Department of Justice and Equality, 2017a). Also, legal obligations to make all public-facing services accessible to persons with a disability are in place under the Disability Act 2005. The *Migrant Integration Strategy - A Blueprint for the Future 2017-2020* (Department of Justice and Equality, 2017b) also sets out several actions to support the specific needs of migrants to ensure adequate service provision, skills development, and participation in lifelong learning.

The Government's *Adult Literacy for Life* Strategy (2021) recognises that to enact sustainable progress, those furthest behind will need to be prioritised and this is allied with the inclusive focus of the 'fostering inclusion' pillars in the SOLAS *FET Strategy 2020-2024*. This will mean developing a targeted approach, supporting those who are most at risk of marginalisation. A number of potentially vulnerable groups with diverse needs have been identified:

Older Adults (55+)	Members of the Traveller Community	Persons with Disabilities
Low-paid Workers	Carers	One-parent Households
Incarcerated Persons and Ex-Offenders	Persons Recovering from Addiction	Long-term Unemployed
Migrants	International Protection Applicants	People with Language Needs

Figure 1: Potential Vulnerable Groups (Government of Ireland, 2021, p.59)

This targeted approach will involve initiatives such as the roll-out of good practice guidelines, including those in relation to universal design for learning and plain language and the establishment of a consistent learner support service across FET/ETB level to coordinate and progress this activity.

The Government of Ireland's (2021) *Adult Literacy for Life* Strategy also highlights that one of the barriers to making education and wider public services more accessible is the use of complex language, instructions and conditions that make application processes difficult to navigate. It is essential that all services designed to support literacy and associated needs communicate clearly using plain language and easy-to-read principles. The Department of Public Expenditure and Reform (2016) has developed a *Plain English Style Guide for the Public Service,* in collaboration with NALA, and the 2021 *Adult Literacy for Life* Strategy commits to supporting the implementation of these guidelines and for public sector organisations to agree plans via the Cross Government Implementation Group to ensure direct communication with the public in plain language.

Current policy implications on the CITO Skills Checker

The design and development of the CITO Skills Checker tool was informed by a set of guiding principles and strategies for the design and development of a motivational Skills Checker tool (see https://citoproject.eu). These guiding principles reference the main principles of the UDL framework in order to offer all users equal opportunities, including learners with disabilities and those lacking ESOL literacy. During the development process, a further adaptation was made with these guiding principles in mind and a text-to-speech tool (ReadSpeaker) was implemented in the second iteration of the prototype. This will not only assist people with a visual, physical or intellectual disability to use the Skills Checker, but also those with literacy, ESOL literacy, and digital literacy needs.

Implications for future policy

Current policy will have broader implications for future policy implementation and coordination and will require a collaborative, integrated, multi-stakeholder, cross-Government approach to ensure adequate funding, resource planning, capacity building, recruitment, coordination, and effective partnership structures at national, regional and local level. Additionally, ongoing investment to ensure the adoption of the FET UDL Guidelines across all literacy provision and to expand on current Plain language training and editing capabilities is required. It is clear that further development of training capabilities, resources, and a centralised approach to its coordination and delivery, along with investment in assistive technology and ongoing research and development into its potential use will address the identified recommendations. An ongoing review and expansion of support services to provide learner support for pathways and progression routes and individualised interventions with disability and access officers or resource workers would have an improved outreach.

3.2 Malta

This section will address the policy implications for the Maltese context arising from the five key findings from Phase 2 of the study.

3.2.1 Enhanced range and access to education opportunities

Increase the database of courses on the CITO Skills Checker to cater for a range of adults with diverse skill levels; and include appropriate accredited and non-accredited options for members of the Target Group (adults aged 25 and over with a highest educational attainment of EQF Level 1, 2 or 3).

Relevant policy

The relevant policy is the Ministry for Education and Employment (2014) *Malta National Lifelong Learning Strategy 2020*.

Current policy implications on the application of CITO Skills Checker

The Malta Further and Higher Education Authority maintains a register of accredited further and higher education institutions and their accredited programmes in Malta: Malta Qualifications Database.

Implications for future policy

The inclusion of non-accredited programmes is not stated in any of the reviewed Maltese policy documents. Users would benefit more from a progressive learning pathway which takes people on an educational journey, progressing in difficulty and skills. Additionally, translations of the information within the database to both Maltese and other languages would have a better outreach.

3.2.2 Provision of standardised pathways for the provision of education, training and guidance services
Ensure that information regarding access to education and training information services, and general public adult guidance services is visible to users of the CITO Skills Checker.

Relevant policy
The three relevant policies are:
1.) Consultation document; Ministry for Education (2020) *National Strategy for Lifelong Learning 2020-2030*.
2.) Ministry for Education and Employment (2014a) *Malta National Lifelong Learning Strategy 2020*.
3.) European Commission (2016) *Council recommendation of 19 December 2016 on Upskilling Pathways: New Opportunities For Adults, OJ C 484*.

Current policy implications on the application of CITO Skills Checker
Regarding educational guidance, a guidance unit has been set up in the Ministry of Education in Malta which offers general information services as well as personal guidance services to adult learners. This unit currently consists of a group of four persons on a part-time basis who mostly guide the adult learners who currently attend the lifelong learning courses that are offered by DRLLE. The guidance team meets anyone who needs help via appointment at the Msida Lifelong Learning centre or at the Ministry of Education. They also offer their services over the telephone and online. This team has been provided with information sessions about the CITO Skills Checker and they will be using it with the adults who need help with basic skills assessment.

Implications for future policy
People must be provided with the information and guidance they need to make effective learning decisions and transitions. Information, advice and guidance services specifically aimed at adults with low basic skills should ideally be widely available. Preferably, more full-time persons would ideally be available at the one stop shop of the Ministry as it is the first contact point of most adult learners who wish to obtain information about courses that are suitable for them, via local councils, Job centres such as Jobsplus and at Servizz. gov locations around the Island. This service can be integrated with the CITO Skills Checker concept since it could be used as an initial assessment tool by the guidance services. Frequent campaigns that showcase this service and the CITO Skills Checker would help raise awareness amongst individuals about what is available to them.

3.2.3 Requirement for accessible support services to complement the tool
Provide access to additional supports, if required by users, to engage effectively with the CITO Skills Checker, e.g. in person, telephone, online service

Relevant policy
The three relevant policies are:
1.) European Commission (2016) *Council recommendation of 19 December 2016 on upskilling pathways: New opportunities for adults, OJ C 484*.
2.) Ministry for Education and Employment (2014b) *Framework for the Education Strategy for Malta 2014-2024; Sustaining Foundations, Creating Alternatives, Increasing Employability*.
3.) Consultation document; Ministry for Education (2020) *National Strategy for Lifelong Learning 2020-2030, forthcoming*.

Current policy implications on the application of CITO Skills Checker

Currently, support is being offered to users of the CITO Skills Checker by Directorate for Research, Lifelong Learning and Employability through telephone calls, online and face to face meetings. An outreach campaign has also been organised to inform the general public about the CITO Skills Checker and the support that may be needed to use it. However, this service will cease after the CITO project finishes and there will be no further promotion undertaken.

Implications for future policy

Continuous support could be provided to the users of the CITO Skills Checker by implementing its use within a larger and broader guidance service that includes full-time employees who are available over the telephone, online and for face-to-face meetings at learning centres, local councils and other strategic contact points for adult learners and adult teaching service providers. Regular campaigns that focus on adult learners' motivation, and target migrants and other vulnerable adult learners, can raise awareness of education and training courses and guidance supports, and provide information on where and how to obtain such supports.

3.2.4 Localisation for implementation
Consider the development of relevant language versions of the CITO Skills Checker, particularly in countries where there is more than one national language.

Relevant policy

1.) Ministry for Education and Employment (2014a) *Malta National Lifelong Learning Strategy 2020*.
2.) Ministry for Education and Employment (2014c) *A National Literacy Strategy For All in Malta and Gozo*.
3.) Consultation document; Ministry for Education (2020) *National Strategy for Lifelong Learning 2020-2030*.

Current policy implications on the application of CITO Skills Checker

In both the Maltese Constitution (1964) and the Maltese Language Act (2005) it is stated that services are to be available to citizens in the Maltese language.

Implications for future policy

Third country nationals (TCNs) living in Malta may be supported through translations of the CITO Skills Checker to develop their literacy skills in order to be able to communicate their needs, fulfil their rights and realise their present and future aspirations. A lack of basic language skills can cause migrants to become isolated and susceptible to exploitation. Therefore, the adaptation of the CITO Skills Checker into a number of languages may support the migrant community to further integrate into Maltese society. Additional community liaison workers who can speak the languages of the TCN's who live in Malta can be employed to assist these communities with skills checker tools such as the CITO Skills Checker.

3.2.5 Need to reflect inclusivity and diversity in the provision and usability of online tools
Ensure that the readability and pace of the content of the CITO Skills Checker (i.e. narrative and visuals) is accessible for members of the target group, including those with diverse learning needs.

Relevant policy

1.) Ministry of Education (2021) *A National Literacy Strategy For All in Malta and Gozo, 2021-2030. A Consultation Document*.
2.) European Agency for Special Needs and Inclusive Education (2014) *Education for all: Special needs and inclusive education in Malta*. External Audit Report.

Current policy implications on the application of CITO Skills Checker

Currently there is no policy that requires that adult learning tools are to be accessible for members of the target group, including those with diverse learning needs.

Implications for future policy

The Commission for the Rights of Persons with Disability (CRPD) is committed to rendering Maltese society an inclusive one, in a way that persons with disability reach their full potential in all aspects of life, enjoying a high quality of life thanks to equal opportunities. The EU-funded study *Research into the Current Situation of People with Disabilities and Employment in Malta* (2021) was commissioned by the CRPD in collaboration with the Ministry for Social Justice and Solidarity, The Family and Children's Rights.   The research found that the majority of persons with disabilities have never participated in employment training schemes which could boost their chances of finding and retaining a job. It was also found that out of 336 persons with disabilities interviewed, 61.3% are in employment and 55.3% of this group never had any form of job training. Furthermore, 41.5% are unemployed and actively seeking a job. When it comes to those who are unemployed, 62.3% never had job training, even though 59.2% would be willing to participate in a job training scheme.

More persons with disabilities would have greater opportunities to find employment if there were additional job training schemes and skills assessments made available to them. Recommendations include providing tailor-made skills assessments by using tools such as the CITO Skills Checker, to help coach all individuals with disabilities in finding suitable learning pathways to further develop both their learning and skills and eventually lead them to job training and work. Increasing the number of incentives and schemes that include daily support and assistance to individuals with disability at guidance centres / units, local councils, job centres and servizz.gov offices, would create this much needed support to learners with diverse needs.

The principal advocate and coordinator for making information communications technology (ICT) accessible for persons with disabilities in the Maltese islands is the Foundation for Information Technology Accessibility (FITA) (https://fitamalta.eu/). Its services assist persons with disabilities in the selection, acquisition, or use of assistive technology that is intended to maintain or improve the individual's quality of life. The CITO Skills Checker could help assist such organisations and in turn their services can incorporate the benefits of the CITO Skills Checker and directly assist individuals to use it. Concerning persons with disabilities in Malta, these measures would more align Maltese society with the *United Nations Convention on the Rights of Individuals with Disabilities* (UN, 2006) and improve their access to society, education, and employment.

3.3 Norway

This section will address the policy implications for the Norwegian context arising from the five key findings from Phase 2 of the study.

3.3.1 Enhanced range and access to education opportunities
Increase the database of courses on the CITO Skills Checker to cater for a range of adults with diverse skill levels; and include appropriate accredited and non-accredited options for members of the Target Group (adults aged 25 and over with a highest educational attainment of EQF Level 1, 2 or 3).

Relevant policy
In Norway adult education is regulated by The Adult Education Act (1976) and The Education Act (1998). The right to free education for adults up to and including upper secondary is guaranteed by law. The responsibility is divided between municipalities and counties.

Adults who need primary and lower secondary education have a statutory right to such education. Adults also have a statutory right to upper secondary education. This applies to adults who have not already completed an upper secondary education. Under the Adult Education Act, the provision of courses is the responsibility of the respective public education authorities at the various levels of education. The Education Act regulates primary, lower secondary and upper secondary education for all, including adults. This policy related to adult education has been clarified and elaborated upon in the recent Norwegian Strategy for Skills Policy 2017-2021 (Norwegian Ministry of Education and Research, 2017) which was signed by the Norwegian Government, the main employer and employee organisations, the Sami Parliament, and the Norwegian Association for Adult Learning in 2017.

The main headline in the Strategy is that a national skills policy is the overall policy for development, mobilisation, and utilisation of skills in the entire Norwegian society and labour market. The strategy partners have agreed to:
(i) contribute to making informed choices for the individual and society;
(ii) promote better learning opportunities and effective use of skills in the labour market;
(iii) strengthen the skills of adults with poor basic skills, poor Norwegian and little formal education.

It is also important to mention the White Paper " The Skills Reform : Lifelong learning" (2019-2020) (Norwegian Ministry of Education and Research, 2020), https://www.regjeringen.no/en/dokumenter/report-no-14-to-the-storting-20192020/id2698284/, which builds on the Government's national skills policy from 2013 to the present, including the Norwegian Strategy for Skills Policy 2017-2021.

The Skills Reform was established and presented by the Norwegian government in 2019. The Skills Reform was implemented during the period 2013–2018, whereby the Government gave priority to adults with poor basic skills and persons who have not completed upper secondary education. Several measures have been initiated to better adapt the education system to adults who need lower secondary education, vocational education and training, basic skills training, or Norwegian language tuition.

The aim of The Skills Reform is that the Government will continue its efforts to provide adults with little formal education or poor basic skills better access to flexible education, and to upskill and reskill the workforce. It has two main objectives. The first is that no one's skills become obsolete. Everyone should be given an opportunity to renew and supplement their skills to enable them to work longer. The second objective is to close the skills gap, i.e., the gap between what skills the labour market needs and what skills the workers have.

The labour market in Norway is changing rapidly, and the need to constantly renew one's skills is becoming more and more important. This is a special challenge for employees with low basic competence and who, due to changes in working life, need formal competence in the form of a trade certificate. Lack of formal competence is one of the most important factors for not being excluded from working life. The Government will further develop the reform in the coming years in cooperation with the social partners. The Skills Reform summarises the status of the Government's achievements so far and which reform measures have been initiated. It clearly shows the direction in which skills policy must be developed going forward. The new government that took office in the autumn 2022 has reinforced the Skills Reform and will to make education and training more accessible in the whole country, with more decentralised education and training opportunities in close cooperation with the regional and local labour market.   In the non-formal sector in Norway different adult education associations play an important role.

The main objective of the adult education associations is to provide educational opportunities that are independent of curricula and examinations. However, they can also provide formal training at all levels. The Norwegian Association for Adult Learning (NAAL) is an umbrella organisation for publicly approved Norwegian education associations. NAAL acts as a cooperation partner and link to the Ministry of Education and Research.

An important national initiative that includes several non-formal adult education providers in Norway is the Basic Skills in Working Life programme (i.e., SkillsPlus). Since its establishment in 2006, funding and participation have increased every year on the programme. The number of participants who have received training now exceeds 30 000.

Any enterprise in Norway, private and public, can apply for funding in cooperation with an adult education provider through the SkillsPlus-program.

The SkillsPlus-program concentrates on reading, writing, numeracy, and digital skills. Since 2014, the programme also includes oral communication in combination with other skills. The aim of the SkillsPlus-program is to provide adults with the opportunity to acquire the basic skills they need to keep up with the demands and changes in modern working life and civil society.

Current Policy Implications on the Application of CITO Skills Checker
The official Norwegian national education and career database is www.utdanning.no. This is a new public service implemented in 2020. The service includes an overview of different educational pathways in Norway with approximately 600 career descriptions. Mostly focus on accredited course options, with a good overview of VET courses.

The site is interactive and all approved educational institutions in Norway can enter and edit study options information on the website. The service is free of charge and is provided through separate partner sites. Both education and career information have been developed in close collaboration with relevant institutions, such as study providers and professional bodies.

To increase the database of courses on the CITO Skills Checker the skills checker could be linked to www. utdanning.no so that the results of the individual survey can be directly linked to specific courses and relevant educational choices. It is also important to promote the CITO Skills Checker as a relevant tool for all adult learning providers, especially those who work actively in the SkillsPlus program.

Implications for Future Policy

As www.utdanning.no focuses mostly on accredited courses, there is a need for a better overview of non-accredited courses. There should also be a more specific focus on courses and training opportunities for adults with low basic skills.

There is a need for more and better guidance for adults in need of combining basic skills training and / or language training with formal competence (VET). All training in formal competence is offered in the Norwegian language only. It is evident that there are requirements for further educational possibilities for Norwegians with a foreign language (i.e., migrants).

3.3.2 Provision of standardised pathways for the provision of education, training and guidance services
Ensure that information regarding access to education and training information services, and general public adult guidance services is visible to users of the CITO Skills Checker.

Relevant policy

The Government desires the adult population to take an active part in the workplace and society. As part of the Competence Reform, several measures were initiated to build up the skills of the adult population. However, this has not led to an increase in participation amongst those who are in greatest need of such education and training.

The low participation in education and training amongst persons with a low education level is due both to a lack of interest and a shortage of suitable training programmes, adapted to adult needs and life situations. Today, there is an increasingly large group of young adults who do not have access to upper secondary education. This also applies to a growing number of immigrants who have arrived in Norway too late to exercise the right of adults to education.

The measures articulated in *The Early Intervention for Lifelong Learning* are:
(i) extend the right to upper secondary education for all adults (abolish the 1978 regulation);
(ii) Increase grants for the Programme to promote basic skills in the workplace;
(iii) Strengthen educational and career guidance for adults.

In relation to the strengthening educational and career guidance for adults, in recent years Norway has developed a *National Quality Framework for Career Guidance* Quality in career guidance - Competence Norway (kompetansenorge.no)

The framework is for those who work in career guidance, career learning or oversee career guidance services. The overall goal is for a quality framework to contribute to high-quality career guidance services in all sectors in Norway. A cross-sectoral quality framework is seen as an important cohesive measure in a comprehensive system for lifelong career guidance.

Quality and professionalism in career guidance are crucial for the services to provide the desired benefit, both for the individual and society. In addition to the 2016 White Paper, the OECD's (2014) *Skills Strategy Action Report for Norway* and the *National Competence Policy Strategy (2017)* are important reference points for the current focus on quality in Norwegian career guidance.

In all of the above mentioned reports, the importance of a comprehensive system for career guidance is emphasised. Based, among other things, on the recommendations from the European Lifelong Guidance Policy Network (ELGPN), it is assumed in the White Paper *Norway realigning-career guidance for the individual and the society* (2016) that a comprehensive system for career guidance consists of four elements:

(i)   access for all groups;
(ii) comprehensive content;
(iii) mechanisms for coordination and cooperation;
Iv)   consistent quality and professionalism.

Today, children, young people and adults in Norway are well on their way to having equal access to education and training. Education in Norway is generally free of charge for all.

All counties in Norway have dedicated career advice centres that are open to the public. These career advice centres in general are based on face-to-face guidance. In addition to the face-to-face career guidance there are several public and private on-line career guidance opportunities, administered by the Norwegian Labour and Welfare Service, adult learning providers, Skills Norway, and different companies in the vocational rehabilitation sphere.

The implementation of the CITO Skills Checker could improve access to career guidance, especially for adults with low basic skills and adults who experience challenges in sourcing a career advice centre for guidance.

The CITO Skills Checker could be a useful tool for adult education providers working with adults with low basic skills in both formal and in-formal education. The implementation of the CITO Skills Checker should be linked to the Skills-Plus program both as an advisory tool on career guidance and as a tool for identifying the basic skills one should strengthen through concrete education / training.

Implications for Future Policy
Even though education in general is free of charge there are important barriers to relevant and easily accessible career and training guidance for adults, especially adults with low basic skills. The term career competence refers to several competencies that enable adults to be able to plan, develop and manage their own training and careers in a structured way.

Career competence includes skills in being able to collect, analyse and apply information about education, work, and oneself, deal with transitional phases in life, and make choices.

Therefore, there is a need for improving adults' career competence and making career guidance more accessible to them. The barriers associated with face-to-face guidance should be eliminated with more emphasis placed on easy access via digital opportunities and online assessment.

3.3.3 Requirement for accessible support services to complement the tool
Provide access to additional supports, if required by users, to engage effectively with the CITO Skills Checker, e.g. in person, telephone, online service.

Relevant policy
In 2020 the Norwegian government established a new career guidance website portal for adults: www. karriereveiledning.no This is a public and quality-assured website. Here adults can talk to a career counsellor online or by telephone, about queries related to education, training, and work.

Implications for Future Policy

The CITO Skills Checker could be linked to the career guidance portal with enhanced support options.

3.3.4 Localisation for implementation
Consider the development of relevant language versions of the CITO Skills Checker, particularly in countries where there is more than one national language.

Relevant policy

Refugees and their families who have been granted a residence permit in Norway have the right to and are obliged to complete an introductory programme. This is stated in the *Act on Integration through Education, Training and Work (Integration Act)* (2020) The introduction programme | IMDi.   All municipalities that settle refugees are obliged to offer this programme. The right and obligation to participate in an introduction programme shall apply to newly arrived foreign nationals between 18 and 55 years of age who need to obtain basic qualifications and who have been granted asylum (or a residence or work permit hence to the Immigration Act section 8, 9 or 22 with the restrictions mentioned in the Act). The introduction programme shall be designed for persons who need to obtain basic qualifications. The programme may run for up to two years, with additional periods for approved leaves of absence. When special reasons so warrant, the programme may run for up to three years.

Municipalities shall provide introduction programmes for newly arrived immigrants who are resident in the municipality. As soon as possible and within three months after a person is settled in a municipality or after a requirement of participation is presented, the municipality shall provide an introduction programme. An individually adapted plan shall be drawn up for any person who is to participate in an introduction programme. It shall be formulated based on an identification of the training needs of the person concerned and of the measures that may be useful to the person concerned.

Current policy implications on the application of CITO Skills Checker

Norwegian is the administrative language in Norway, with two equal target forms, Bokmål and Nynorsk. In addition, Sami is equated with Norwegian in some municipalities in the two northern counties of Troms and Finnmark.

According to the law, Bokmål and Nynorsk are equal languages in Norway and government agencies are required to be able to communicate with users on both target forms. According to official statistics, there are approx. 90% of the population in Norway have Bokmål as their main language.

Implications for Future Policy

The two equal target forms, Bokmål and Nynorsk, are quite similar languages and will in general be understood by users regardless of language form. At present, we do not recommend prioritizing a Nynorsk version of the CITO Skills Checker.

The Norwegian partners have trialled the CITO Skills Checker with migrants with a foreign language. Migrants may have a language barrier that sometimes makes it difficult for them to use the CITO Skills Checker without support from teacher / trainers.

As refugees and their families who have been granted a residence permit in Norway have the right to, and are obliged to complete an introductory programme, the CITO Skills Checker could be implemented as part of the Introduction Program. It is anticipated that in future work with the CITO Skills Checker, alternative versions will be adapted for the benefit of candidates of non-Norwegian origin.

3.3.5 Need to reflect inclusivity and diversity in the provision and usability of online tools
Ensure that the readability and pace of the content of the CITO Skills Checker (i.e. narrative and visuals) is accessible for members of the target group, including those with diverse learning needs.

Relevant policy
The relevant policy is the Norwegian Education Act (2014).

Current policy implications on the application of CITO Skills Checker
Norway has a strong principle of accessibility for everyone, regardless of mental or physical health. This also includes people with diverse learning needs and is fundamental in the Norwegian Education Act (2014).

Implications for Future Policy
The CITO Skills Checker should be well rooted in organisations that work specifically with adult learning, and with adults with low basic skills in particular. To ensure this it is important to further develop the cooperation with the Norwegian Association for Adult Learning (NAAL) and the learning providers working in the SkillsPlus-program. It is also important that the further development of the CITO Skills Checker considers people with other and different learning challenges.

One of the major target groups here are those in *Permanently adapted work-programs* (VTA). VTA is a state-oriented work-oriented measure that provides a job offer in a sheltered enterprise to people who have problems finding work within ordinary working life. Every municipality in Norway is obliged to offer these kinds of jobs. The purpose of VTA is to provide the participants with work that contributes to developing their resources through qualification and work tasks that are adapted to the individual's ability to work. The participants receive a customised job offer with facilitation and follow-up. To ensure this it is important to further develop the cooperation with *Work & Inclusion* - the interest organisation for 110 member companies within vocational rehabilitation in Norway.

There is also an important target group among jobseekers and people on different work-related programs. An important strategy for further use of the CITO Skills Checkers in Norway should be to strengthen the cooperation with the Norwegian Welfare and Labour Organization, https://www.nav.no/en/home.

4. Educational and Training landscapes within CITO research

It is evident from the individual contexts described, under the five key policy related findings from the Phase 2 research, the ability to adopt and effectively utilise a tool such as the CITO Skills Checker is largely determined by individual countries policy context, and education and training and support therein.

Similarities and differences are evident between the policy contexts of the three partner countries, providing a glimpse into the spectrum of contexts which exist within and between EU member states, which enable or inhibit the effective adoption of the CITO Skills Checker tool. As an example of a similarity, all three countries have a national database of FET/VET courses, however, these databases are not exhaustive and there is a shared call from the three countries for the inclusion of more unaccredited FET/VET courses in these databases, including unaccredited courses for basic skills learners.

A significant difference among the policy contexts of the three countries is the presence of an established accessible adult guidance service. In Ireland, for example, local, free and accessible adult guidance services have been available to members of the public since the early 2000's, whereas in Malta, a state funded adult guidance service has been established in 2021, this is in addition to guidance services provided by DRLLE, UOM, MCAST, CPRD (all government funded services).

For some EU countries, the effective adoption of a tool such as a CITO Skills Checker may be relatively easy and involve adaptions, or improvements, to already existing systems and services. Whereas, in other countries, the development of relevant policy and the establishment of necessary infrastructure (e.g. national adult literacy services, national information and adult guidance services, national databases of formal, non-formal, informal, accredited and non-accredited FET/VET courses) needs to be established for the CITO Skills Checker to be most effective.

Nevertheless, it is important to note, that the self-assessment of skills aspect of the CITO Skills Checker is of value even when a country lacks the infrastructure to link the CITO Skills Checker to a national database.

5. High level recommendations for European and International policy formulation

Findings from the CITO project suggest that impactful education policy should be widely understood and communicated to all the relevant stakeholders. It should accommodate regional and local socio-cultural differences; it needs to have a clear and well-defined implementation framework and it needs to be supported with the appropriate services, trained staff, and budgets.

Some of the partner countries involved in the CITO project had well-developed national strategies but these were not coupled with the required associated services, so full and successful implementation will be a challenge. Policy experimentation is not widely understood across member states and further communication and dissemination events would assist greatly in increasing understanding of these type of projects.

For successful policy impact, the example of Ireland is helpful. Following the publication of the European Commission's 2016 *Council Recommendation on Upskilling Pathways*, the national Government department responsible for Education convened a national working group to address the recommendations and how they might be implemented in Ireland. The High-level group involved all key stakeholders and resulted in a series of consultations on different policy instruments and a new national strategy to address adults with low basic skills. The Adult Literacy for Life strategy published in 2021 is underway and implementation has begun. The recommendations from the CITO project will be fed back to SOLAS, the national agency that published the new strategy, and it will be asked to disseminate findings to the national High level working group.

A further consideration from the CITO project is whether findings from the project can be used to facilitate a timely response to current policy. A challenge of policy experimentation is the length of time required to assess impact. The CITO Skills Checker tool may provide a rapid response to current initiatives underway relating to national strategies and could be used to assess progress towards some of the metrics and targets outlined in various national strategies and policy documents.

A significant finding from the study was that many adults with low basic skills would require some assistance in using the CITO Skills Checker tool. A basic level of digital literacy is required, and this may mean that the use of the tool should be in certain settings (education and training providers, job centres) where the adult using the tool can access the necessary support to do so.

5.1 Further recommendations from the CITO project

Across the EU, there is a significant disparity with regards to literacy needs despite the largely prosperous wider EU economy. Many marginalised groups are further disadvantaged by the lack of access to literacy supports. Learners with complex needs such as migrants may be exponentially disadvantaged both socially and economically. This project addresses those needs by providing a tool (the CITO Skills Checker tool) which coalesces needs and solutions in a supported, learner-oriented way. The unique characteristics of this tool, coupled with its potential for use across languages and borders, offers a sustainable solution which can be localised to other EU member states. Furthermore, through the design of the CITO Skills Checker tool, adults are empowered through its self-assessment model to plan for further steps toward meeting these literacy needs.

There are significant and complex challenges to the successful scaling-up and exploitation of the CITO Skills Checker, including funding structures to support National agencies in addressing literacy needs. The focused types of support needed to rollout the tool to further contexts will require targeted funding. Funding recommendations across the EU should include a targeted approach to supporting innovative approaches to literacy supports for adults with unmet literacy needs. A cohesive funding structure would address the needs of persons in the EU who are experiencing social and economic disadvantage through unmet literacy needs. A finding from the CITO research is a recommendation to reduce reliance on casualised, part-time and voluntary support personnel, and to offer appropriate recognition to education and training services and their practitioners (basic skills tutors and teachers) who guide learners through the skills check process. The identified need to maintain accurate national databases for education and training services needs to be funded in order to realise the potential of the CITO solution, where this is unmet it significantly reduces the usefulness of the CITO tool to its targeted audiences. Additionally, the provision of an EU wide approach to literacy education and training can aid mobility where marginalisation forces the need to access services across Member States and provide appropriate pathways towards literacy.

The CITO Skills Checker is a tool that can be used on an independent or supported basis for adults with low basic skills. For member states who wish to embed the use of the tool to specific targeted initiatives consideration needs to be given to support staff, both staff involved in teaching and training and those involved in guidance and counselling support. Professional development pathways for adult educators are important and supporting their professionalisation will require national budgets and co-ordinated support services. Additionally, there may be opportunities to implement the Skills Checker beyond adult education partnering with employers and public service organisation, however the feasibility is beyond the scope of CITO.

6. Further research potential

The CITO project explored the use of a skills checker tool across three EU partner countries. The findings have been presented and a number of opportunities outlined based on the project outcomes.

Our recommendations for further research are based on issues and questions that arose during the research study. It is important to note that this project took place during a global pandemic and the findings and observations from the researchers reflect the experiences and insights gained during this exceptional period.

i.   Further research into the use of an online skills checker tool on a wider public basis should be considered. The CITO Skills checker tool was tested on a relatively small population and it would be very valuable to test the use of the tool to a much broader cohort of adults with low basic skills. This would require significant national funding and we recommend that it would be supported by a transnational marketing promotional campaign. This would provide a broader perspective on adults who are not engaged with any literacy support services and may assist in targeting the difficult to reach adults with low basic skills.

The percentage of adults with low basic skills who engage with Lifelong Learning is estimated at 3.4% (EC, 2021). Further research on a longer-term basis on the use of the CITO Skills Checker could be very helpful in understanding what motivates adults with low basic skills to engage in further education or training.

ii. Further research to redesign the tool so that a single version could be used across Member States that integrates the databases of education and training opportunities in Europe. Whilst mobility in the EU is accessible, the potential of a one-stop shop for citizens to self-assess and access opportunities is desirable.

iii. Investigation of suitability for new state of the art technology to support self-assessment basic skills tools. There are two elements to this potential, usability and support.
a. To improve the usability of the CITO Skills checker tool through adoption of 3D technology however, the feasibility of adopting more complex technology, could introduce additional barriers for access.
b. Adoption of 24/7 chat bots alongside the CITO Skills Checker to support learners.

iv. Further research projects could include the provision of self-assessment for specific skills and competences such as health literacy and financial literacy. Additionally, it is important to consider the wider reach of people with literacy needs such as consideration of the family as a whole and a gap analysis in relation to the critical unmet literacies of family units. The use of the CITO Skills checker tool in the area of family literacy offers significant research potential.

7. Conclusion

The United Nations Universal Declaration of Human Rights declared that everyone has the right to an education, and that it should promote understanding, tolerance and friendship among all nations (Article 26). This CITO project aimed to facilitate and support educational opportunities aimed at adults with unmet literacy needs. The rationale for this project focussed on exploring if a self-assessment skills checker tool could motivate and encourage adults with low basic skills to return to education or training.

The principle finding of the CITO project was that the CITO Skills checker tool did encourage and motivate adults to consider returning to learning. However, in order for the tool to fully realise its potential, a connection into a national database of supports (formal, informal and non-formal) is required. This national database of supports for adults with low basic skills needs to be coupled with adult guidance and counselling services.

All of the support services require a professionally trained workforce of tutors, trainers and teachers, who have all been provided with the appropriate pedagogical training and theoretical basis for working with adults with unmet literacy needs.

The CITO Skills Checker offers an opportunity for real change and delivery in the area of adult literacy, numeracy and digital skills. The CITO Skills Checker will not be simply an online tool. Rather, the aim of the CITO project is to ensure that it will be a sustainable, shareable resource, openly accessible to all Member States and adaptable to all languages. The CITO Skills Checker has been designed to trigger curiosity, to motivate and to sustain interest in literacy development for all, irrespective of backgrounds. In this way, it is grounded in the Freirean philosophy of empowerment through education.

Reference List

Casey, M., O'Leary, D., and Coghlan, D. (2018) 'Unpacking action research and implementation science: Implications for nursing', *Journal of Advanced Nursing*. doi: 10.1111/jan.13494

Commission for the Rights of Persons with Disability and Ministry for Social Justice and Solidarity, The Family and Childrens Rights (2021) *Research into the Current Situation of People with Disabilities and Employment in Malta (2021)*. Available at: https://fitamalta.eu/situation-of-people-with-disabilities-and-employnment-in-malta/).

Creswell, J.W. and Plano Clark, V.L. (2017) *Designing and conducting mixed methods research*, 3rd ed. Los Angeles, CA: Sage.

Department of Education and Science (2000) *Learning for life: White paper on adult education*. Dublin: Government Publications Office.

Department of Education and Skills (2016a) *Action plan for education 2016-2019*. Available at: https://www.education.ie/en/Publications/Corporate-Reports/Strategy-Statement/Department-of-Education-and-Skills-Strategy-Statement-2016-2019.pdf

Department of Education and Skills (DES) (2016b) *National Skills Strategy 2025; Ireland's future*. Available at: https://www.education.ie/en/Publications/Policy-Reports/pub_national_skills_strategy_2025.pdf

Department of Justice and Equality (2017a) *National Disability Inclusion Strategy 2017-2021*. Available at: https://www.gov.ie/en/publication/8072c0-national-disability-inclusion-strategy-2017-2021/

Department of Justice and Equality (2017b) *The Migrant Integration Strategy; A Blueprint for the Future. Available* at: https://www.justice.ie/en/JELR/Migrant_Integration_Strategy_English.pdf/Files/Migrant_Integration_Strategy_English.pdf

Department of Public Expenditure and Reform & Centre for Excellence in Universal Design (2017) *Customer Communications Toolkit for the Public Service — A Universal Design Approach*. Available at: https://universaldesign.ie/products-services/customer-communications-toolkit-for-the-public-service-a-universal-design-approach/

Department of Public Expenditure and Reform & NALA (2016) *Plain English Style Guide for the Public Service* A resource to improve the quality and consistency of our communications. Available at: https://www.ops.gov.ie/app/uploads/2019/09/Plain-English-Style-Guide-for-the-Public-Service-2.pdf

European Agency for Special Needs and Inclusive Education (2014) *Education for all: Special needs and inclusive education in Malta*. External Audit Report. Available at: https://education.gov.mt/en/Documents/Special%20Needs%20and%20Inclusive%20Education%20in%20Malta%20%C2%AD-%20External%20Audit%20Report.pdf

European Commission, Directorate-General for Employment, Social Affairs and Inclusion, *The European platform against poverty and social exclusion : a European framework for social and territorial cohesion*, Publications Office, 2011, https://data.europa.eu/doi/10.2767/3940

European Commission (2016) *Council Recommendation of 19 December 2016 on Upskilling Pathways: New opportunities for Adults, OJ C 484*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX%3A32016H1224%2801%29&rid=4

European Standards (2019) *BS EN 17161:2019 Design for All. Accessibility following a Design for All approach in products, goods and services; Extending the range of users*. Available at: https://www.en-standard.eu/bs-en-17161-2019-design-for-all-accessibility-following-a-design-for-all-approach-in-products-goods-and-services-extending-the-range-of-users/?gc-lid=EAIaIQobChMI5ZqZ7Kmx9AIV1WDmCh3sMg2ZEAAYASAAEgJluvD_BwE

European Union (2016) *Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L2102&from=EN

Government of Ireland (2021) *Adult literacy for life: A 10-year Adult Literacy, Numeracy and Digital Literacy Strategy*. Available at: https://www.solas.ie/alnd-strategy/

Government of Ireland (2021) *Adult literacy for life: A 10-year Adult Literacy, Numeracy and Digital Literacy Strategy*. Available at: https://www.solas.ie/alnd-strategy/

Government of Ireland (2020) *Programme for Government; Our Shared Future*. Available at: https://www.gov.ie/en/publication/7e05d-programme-for-government-our-shared-future/

Government of Ireland (2005) *Disability Act 2005*. Available at: https://www.irishstatutebook.ie/eli/2005/act/14/enacted/en/html

Government of Ireland (2003) *Official Languages Act 2003*. Available at: https://www.gov.ie/en/publication/4d92d-official-languages-act-2003-and-related-legislation/

Government of Malta (2005) *Maltese Language Act*. Available at: https://legislation.mt/eli/cap/470/eng/pdf

Government of Norway (1998) *Act of 17 July 1998 no. 61 relating to Primary and Secondary Education and Training (the Education Act)*. Available at: https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=68581&p_country=NOR&p_count=1505&p_classification=09&p_classcount=42

Government of Norway (1976) *Act no.35 of 28 May 1976 on Adult Education*. Available at: https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=13668&p_country=NOR&p_count=1505

J-Pal Europe (2011) *Social experimentation; A methodological guide for policy makers*. European Commission.

Kelly, B. and Perkins, D.F. (2012) *Handbook of implementation science for psychology in education,* Cambridge: Cambridge University Press.

Knox, V., Hill, C.J, and Berlin, G. (2018) 'Can evidence-based policy ameliorate the nation's social problems?', *The ANNALS of the American Academy of Political and Social Science*. Doi:10.1177/0002716218769844

Ministry of Education (2021) *A national literacy strategy for all in Malta and Gozo, 2021-2030; A consultation document*. Available at: https://meae.gov.mt/en/Public_Consultations/MEDE/Documents/NLS%202021_2030%20Consultation%20Document%20June%202021.pdf

Ministry for Education (2020) National strategy for lifelong learning 2020-2030. Directorate for Research, Lifelong Learning and Employability. Available at: https://meae.gov.mt/en/Public_Consultations/MEDE/Documents/LLL%20POLICY%20Document.pdf

Ministry for Education and Employment (2014a) *Malta national lifelong learning strategy 2020*. Available at: https://education.gov.mt/en/Documents/Malta%20National%20Lifelong%20Learning%20Strategy%202020.pdf

Ministry for Education and Employment (2014b) *Framework for the education strategy for Malta 2014-2024; Sustaining foundations, creating alternatives, increasing employability*. Available at: https://education.gov.mt/en/strategy/Documents/BOOKLET%20ESM%202014-2024%20ENG%2019-02.pdf

McFaul, H. A. and Fitzgerald, E. (2019) 'A realist evaluation of student use of a virtual reality smartphone application in undergraduate legal education', *British Journal of Educational Technology*. Doi:10.1111/bjet.12850

Ministry for Education and Employment (2014c) *A national literacy strategy for all in Malta and Gozo*. Available at: https://education.gov.mt/en/Documents/Literacy/ENGLISH.pdf

Norwegian Ministry of Education and Research (2020) *The skills reform – Lifelong learning; Report no. 14 to the Storting (2019-2020)*. Available at: https://www.regjeringen.no/en/dokumenter/report-no-14-to-the-storting-20192020/id2698284/

Norwegian Ministry of Education and Research (2017) *Norwegian strategy for skills policy 2017-2021*. Available at: https://www.regjeringen.no/en/dokumenter/norwegian-strategy-for-skills-policy-2017---2021/id2527271/

Norwegian Ministry for Education and Research (2006) *Early intervention for lifelong learning; Summary of Report No.16 (2006-2007)*. Available at: https://www.regjeringen.no/en/dokumenter/report-no.-16-to-the-storting-2006-2007/id441395/

Parliament of Malta (1964) *Constitution of Malta*. Available at: https://www.parlament.mt/media/82078/constitution.pdf

Pawson, R. and Tilley, N. (2004). Realist evaluation. London: Sage

OECD (2014) *Skills Strategy Action Report for Norway*. Available at: https://www.oecd.org/skills/nationalskillsstrategies/Diagnostic-report-Norway.pdf

SOLAS (2021) *UDL for FET Practitioners: Guidance for Implementing Universal Design for Learning in Irish Further Education and Training*. Available at: https://www.solas.ie/f/70398/x/81044b80ce/fet_practitioners-main.pdf

SOLAS (2020) *Future FET: Transforming Learning; The National Further Education and Training (FET) strategy 2020-2024*. Available at: https://www.solas.ie/f/70398/x/64d0718c9e/solas_fet_strategy_web.pdf

SOLAS (2014) *Further Education and Training (FET) Strategy 2014-2019*, Dublin: SOLAS. Available at: https://www.education.ie/en/Publications/Policy-Reports/Further-Education-and-Training-Strategy-2014-2019.pdf

Tashakkori, A., Johnson, R.B. and Teddlie, C. (2021) *Foundations of mixed methods research; Integrating quantitative and qualitative approaches in the social and behavioral sciences*, 2nd ed. Thousand Oaks, CA: Sage.

United Nations (2006) *Nations Convention on the Rights of Individuals with Disabilities*. Available at: https://www.un.org/development/desa/disabilities/convention-on-the-rights-of- persons-with-disabilities.html

For further information see:
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