



Universal Design in Education: requirements in Path 4 funding

Introduction

The Centre for Excellence in Universal Design (CEUD) at the National Disability Authority (NDA) works to promote Universal Design through the development of standards and guidance, advice papers, codes of practice, curriculum development, toolkits, conferences and awards events.

A Universally Designed product, service or environment can be accessed, understood and used by all people to the greatest practicable extent, regardless of their age, size, ability or disability, without the need for modification or specialised design. This can be achieved by:

- designing products, services and environments that are easy to access, understand and use by most customers/users without any modification
- making product, service and environmental designs adaptable to different users
- having standardised interfaces that are compatible with assistive technology.

Universal Design for Learning (UDL) is an extension of, and is underpinned by Universal Design. “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.”¹

Universal Design in Education (UDE) focuses on whole system design so that the physical and digital environments, the educational services and the teaching and learning can be easily accessed, understood and used by the widest range of learners and all stakeholders, in a more inclusive environment. A Universal Design approach focusses on accessibility and usability from the earliest possible time and throughout all stages in the life of products and services, and the interoperability of products and services with assistive technology.

The NDA chaired the, European Standards committee CEN-CLC JTC 12 Design for All, following the European Commission Mandate M473 for the development of [EN 17161:2019 Design for All – Accessibility following a Design for all approach – Extending the range of users](#). EN: 17161:2019 is a European process standard about using a Universal Design approach at all levels in organisations to continuously improve and address the accessibility and usability of the products and services they provide. Accessibility is particularly important as EU member states are preparing for the implementation of the European Accessibility Act in 2025.

This standard recognises that Universal Design as used in Ireland has a similar meaning to other terms such as

- “Design for All”
- “Accessible design”
- “Barrier-free design”
- “Inclusive design”
- “Transgenerational design”.

The standard specifies requirements and recommendations that enables an organisation to extend their range of users by:

- Identifying diverse user needs, characteristics, capabilities, and preferences
- Directly or indirectly involving users
- Using knowledge about accessibility in its procedures and processes.

This standard describes the adoption, throughout the whole organization, of a process-driven Universal Design for All approach in relation to all aspects of design, development, and provision of products and services. Involvement of

¹ <https://ahead.ie/udl>

users, including persons with disabilities throughout, is a central part of this approach. Accessible products and services are amongst the key outcomes.

The requirements and recommendations in this document can complement existing organisational management and operational processes in order to achieve accessibility outcomes. The structure of the standard is similar to management systems standards, such as EN ISO 9001, into which makes a Universal Design approach easy to integrate.

This standard further defines the requirements across the whole organisation in an order that is consistent with organisational planning and process management, i.e.:

- Understanding the context of the organization, the needs and expectations of interested parties, including people with disabilities, the integration of a Universal Design approach within established systems and processes (Clause 4)
- Leadership, policy and responsibilities in support of a Universal Design approach and the achievement of accessibility outcomes (Clause 5)
- The planning of Universal Design objectives and how to achieve them (Clause 6)
- Organising the support and other resources, including people and information needed to realize a Universal Design approach and the delivery of accessibility outcomes (Clause 7)
- Operational processes related to meeting users' requirements, including persons with disabilities, and developing products and services across the entire end-to-end chain, in accordance with the Universal Design approach (Clause 8)
- Processes to monitor, measure, analyse and evaluate the effectiveness and correctness of the Universal Design approach and its accessibility outcomes (Clause 9)
- The continuous improvement of the Universal Design approach (Clause 10).

A systems approach to transforming education and training through Universal Design

Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) contains the first explicit legal enunciation of the right to inclusive education and it imposes wide-ranging duties on States Parties to it. The UNCRPD Committee's General Comment No. 4 provides a framework, through

which to consider the transformation required to realise inclusive education.² This is a “whole systems approach” which embeds “the necessary changes in institutional culture, policies and practices”. The whole systems approach incorporates the:

- “whole educational environment” - across all levels and all areas of educational institutions and including the local community or wider public
- “whole person” – in which “the capacity of every person to learn, and high expectations are established for all learners, including learners with disabilities” is recognised,
- “Learning-friendly environments” – which are fully accessible and “where everyone feels safe, supported, stimulated and able to express themselves”.

The UNCRPD Committee further elaborates particular aspects of the system that must be transformed, made inclusive and more accessible to all learners. These include “buildings, information and communications tools, the curriculum, educational materials, teaching methods, assessments and language and support services.”³

Universal Design in Ireland

Ireland is unique internationally in having Universal Design defined in primary legislation. Part 6 of the Irish Disability Act 2005 sets out Universal Design as: “the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size, ability or disability”.⁴ This includes public places in the built and digital environment, products and services and ICT systems. Universal Design is not a special requirement, for the benefit of a minority of the population. It is a fundamental condition of good design. This definition of Universal Design has found expression in national policies across a wide range of sectors, from

² Ireland ratified the UN Convention in 2018 and submitted the first State party report in November 2021. [The report may be accessed at this link](#)

³ For more details on the systems approach, please [refer to this paper published by the CEUD in 2020](#)

⁴ I See, for example, “Programme for Government - Our Shared Future”, p55; “Universal Design Guidelines for Early Learning and Care Settings” and “Doing more with Digital - National Digital Strategy for Ireland”.

education and training to the built and digital environments. The Act also provides for the establishment of the Centre for Excellence in Universal Design, the first statutory centre of its kind in the world.⁵ This uniquely places Ireland at the forefront of countries worldwide in terms of having a favourable legislative and policy landscape that supports the implementation of Universal Design across a wide range of sectors, including education and training.

The Principles of Universal Design⁶ comprise 7 Principles and 29 Guidelines. This set of 7 design principles can help to inspire co-design thinking and the 29 guidelines can be used as a set of criteria to compliment design and development activities when evaluating the features and elements of designs for people. In summary, the seven principles are:

- Principle 1: Equitable Use. The design is useful and marketable to people with diverse abilities.
- Principle 2: Flexibility in Use. The design accommodates a wide range of individual preferences and abilities.
- Principle 3: Simple and Intuitive Use. Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
- Principle 4: Perceptible Information. The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
- Principle 5: Tolerance for Error. The design minimizes hazards and the adverse consequences of accidental or unintended actions.
- Principle 6: Low Physical Effort. The design can be used efficiently and comfortably and with a minimum of fatigue.
- Principle 7: Size and Space for Approach and Use. Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

The NDA advises that any proposal submitted under the Path4 funding scheme should be aligned with the principles outlined above. We recognise that not all principles are applicable in all cases, however we advise that proposals should show specific evidence of how at least three of the principles are incorporated into planned activities.

⁵ Centre for Excellence in Universal Design. <http://www.universaldesign>.

⁶ Link to Principles of Universal Design produced by the Centre for Excellence in Universal Design (CEUD): <https://universaldesign.ie/what-is-universal-design/the-7-principles/>

Standardised practices for Universal Design

The text in the subsections below is adapted from Annex D of EN 17161:2019 Design for All – Accessibility following a Design for all approach standard.

Context of the organization – Universal Design approach

- Have you formally undertaken to extend the range of learners and to achieve accessibility outcomes through a Universal Design approach?
- Does the Universal Design approach focus on accessibility and usability from the earliest possible time and throughout the full end-to-end chain in respect of the ICT platforms used by the HEI, the products and services offered by the HEI, and the built environment of the HEI?
- Is the HEI identifying, monitoring, and reviewing all internal and external factors that affect your Design approach?
- Is the HEI identifying, monitoring, and reviewing all interested parties and their requirements as related to the Universal Design approach?
- Have you determined the scope of the Universal Design approach in the HEI in particular with respect to the ICT platforms used by the HEI, the products and services offered by the HEI, and the built environment of the HEI?
- Where applicable, is the HEI integrating Universal Design into existing process systems (including management system standards)?

Leadership

- Has Senior Management demonstrated and formalized leadership and commitment with respect to adopting a Universal Design approach and achieving accessibility outcomes?
- Does the organisational strategy, including but not limited to the Teaching and Learning strategy, the research strategy, The ICT Strategy and other strategies, include a vision for success that identifies the role of accessibility following a Universal Design approach?
- Is Senior Management within the HEI fostering a mind-set in support of accessibility following a Universal Design approach and a culture to which people can contribute?

- Has Senior Management defined the vision and policy with respect to adopting a Universal Design approach in respect of ICT platforms used by the HEI, the products and services offered by the HEI, and the built environment of the HEI, as well as achieving accessibility?

Planning

- Has the HEI defined, considered and addressed the risks and opportunities with respect to whether the planned approach can achieve the intended accessibility outcomes and realize continual improvement?
- Has the HEI established objectives for integrating Universal Design for All into ICT platforms, products and services and the built environment, in order to achieve accessibility outcomes?
- Has the HEI planned for change so as to mitigate against factors with an adverse effect on the Universal Design approach or the accessibility outcomes?

Support

- Has the HEI determined and provided the resources necessary for a Universal Design approach and to achieve the accessibility outcomes?
- Is there the necessary competence with respect to a Universal Design for All approach, at all levels of the HEI, to achieve accessibility outcomes?
- Are provisions in place to ensure that all relevant people (internal and external) are aware of the vision, policy, objectives, roles, responsibilities and effectiveness related to the Universal Design approach and the accessibility outcomes?
- Has the internal and external communication relevant to the Universal Design approach and the accessibility outcomes been determined?

Operation

- Are you planning, implementing and controlling the Universal Design related processes, including outsourced processes as they pertain to the ICT platforms utilised by the HEI, products and services offered by the HEI, and the built environment of the HEI?

- Are you taking account of user requirements and the needs of the widest possible range of users, including persons with disabilities, and at all levels within the HEI, throughout design and development?
- Are you involving users – and particularly persons with disabilities - in the design and development process, and doing so as early as possible?
- Are you identifying and specifying the intended users and doing this so as to include the widest range of users, including persons with disabilities?
- Are your requirements and your specification including requirements to extend the range of users?
- Are you applying best practice in relation to Universal Design and achieving accessibility outcomes?
- Are you practicing iterative and incremental development of programmes of study, as well as other products and services offered by the HEI?
- Are you taking into account assistive technologies?
- Are you addressing human diversity by considering suitable design solutions to extend the range of users and achieve accessibility outcomes?
- Are you evaluating whether your programmes of study, as well as other products and services offered by the HEI, meet accessibility objectives, within the development process and between generations of products or services?
- Are you considering the end-to-end chain in relation to accessibility as it pertains to all activities carried out by the HEI?
- Have you established, communicated and applied accessibility and usability criteria for external suppliers in respect of the ICT utilised within the organisation, the products and services offered by the organisation, and the built environment of the organisation?

Performance evaluation

- Are you monitoring, measuring, analysing and evaluating the effectiveness and correctness of the processes relevant to a Universal Design approach in respect of the ongoing activities of the HEI?
- Are you getting user feedback, including from persons with disabilities, and using this to inform policies, processes and activities at all levels within the HEI?
- Are you conducting internal audits to assess whether the Universal Design approach reflects requirements and is implemented and maintained?

- Is senior management within the HEI reviewing regularly the organization's policy, objectives and performance evaluation as related to Universal Design and accessibility outcomes?

Improvement

- Are you continuously improving your processes, procedures and activities to reflect the needs of a diverse group of learners, including persons with disabilities, and other members of your community?