Universal Design a Catalyst for Transformation

Dr Ger Craddock
Chief Officer
Centre for Excellence in Universal Design (CEUD)
National Disability Authority
“Grownups have failed US”

Global Strike today

Greta has been diagnosed with Asperger syndrome, attention deficit hyperactivity disorder (ADHD), obsessive–compulsive disorder (OCD), and selective mutism
2030 Agenda for Sustainable Development

- 10 targets, 15 indicators (available at [https://unstats.un.org/](https://unstats.un.org/))
- Covering housing (including slum upgrading) and basic services
- Transport systems
- City & settlement planning
- Cultural and natural heritage
- Climate change, disaster resilience and preparedness
- Environmental impact of cities
- Access to green, public spaces
- Urban-rural linkages
- Support for LDCs via local building procurement
National Report on Student Mental Health in 3rd Level Education  Aug 26th 2019 Ireland
Extreme Severe Anxiety % - 38% (two in five)

Depression % - 30% (one in three)

Stress % - 17% (one in six)

No one to Talk to % - 20% (one in five)

Affected their Studies % - 30% (one in three)
• Universal Design offers an opportunity to re-align and underpin current approaches with the **Values**, & **Beliefs** congruent with **Equality, Justice and Human Rights**.

"There is no passion to be found playing small - in settling for a life that is less than the one you are capable of living."
Universal Design defined in Irish Legislation

Universal Design is 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.

(Synopsis from the Irish Disability Act 2005)
Universal Design Approach

COULD YOU PLEASE SHOVEL THE RAMP?

ALL THESE OTHER KIDS ARE WAITING TO USE THE STAIRS. WHEN I GET THROUGH SHOVELING THEM OFF, THEN I WILL CLEAR THE RAMP FOR YOU.

BUT IF YOU SHOVEL THE RAMP, WE CAN ALL GET IN!
Universal design for learning (UDL) is a framework to improve and optimize teaching and learning for all people based on New scientific insights into how humans learn.

**UDL at a Glance**

UDL guides the design of instructional goals, assessments, methods, and materials that can be customized and adjusted to meet individual needs.
A Paradigm Shift

Accessibility:
Provides basic access and usability of facilities, products and services for people with disabilities.

Universal design:
Enables independence and social participation for all through continual improvement.

(World Disability Report 2011)
Convention: Article 4:

State Parties: to undertake or promote research and development of universally designed goods, services, equipment and facilities, which should require the minimum possible adaptation and the least cost to meet the specific needs of a person with disabilities, to promote their availability and use, and to promote universal design in the development of standards and guidelines;
## Universal Design in Education

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Universal Design</th>
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<tbody>
<tr>
<td><strong>Disability</strong> as an impairment • or abnormality in the person</td>
<td><strong>Disability</strong>: A component of human diversity</td>
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<tr>
<td><strong>Assessment</strong>: Assure students with disabilities are included in high-stakes assessment</td>
<td><strong>Assessment</strong>: Assure that standardised assessments are designed to be accessible to the widest range of students</td>
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“Environment = buildings, public places, products, services and ICT”
Key Elements of Universal Design Approach

• Understanding Difference – person centred
• Based on 7 Principles
• Process – Iterative
• Multi-stakeholder participation
• Whole systems focused
Universal Design System
Person, Activity and Environment (PAE)

Diversity

Meet the Normals
Stakeholders in the Irish Context

Context

Environment

Public

Industry

Gov’t

Education
Systems Change Process
3 I’s

Initiation
- Materials
- Resources
- Personnel

Implementation
- Practices
- Capacity Building
- Professional Development

institutionalisation
- Attitudes
- Behaviour
The Disability Access Route to Education (DARE) is a third level alternative admissions scheme for school-leavers whose disabilities have had a negative impact on their second level education.
Centre worked in 2018 with DARE to make the process and form more accessible, understandable and usable. Re-launched the Handbook.

NB:
Parents mainly fill out the form and many would not have 3rd level education.
Principle Eight. Equity of access policies should be mainstreamed into the everyday life of higher education institutions to enhance the quality of the learning experience and progression outcomes for students.

It is acknowledged that students from the target groups may require additional academic or other supports in order to complete, but this must be done in accordance with the principles of universal design for learning and should not label them in any negative way. Any such support measures must be transparently available to all.
PROPOSED PRIORITIES FOR THE NEXT PHASE OF NAP IMPLEMENTATION

Policy Implementation Priorities

Mainstreaming:
It is recommended that clear information on mainstreaming in practice and universal design is communicated to higher education institutions. The next phase of NAP implementation should develop a vision of what mainstreaming means so that there is a shared understanding across the higher education sector. Included in this work should be consideration of the feasibility of some actions, for example access champions in every faculty.
Context:

EDUCATION

COMPLEX PROBLEM
The Forces impacting on the Educational Eco-system

VUCA

Complexity
Multiple key decision factors

Volatility
Rate of change

Ambiguity
Lack of clarity about meaning of an event

Uncertainty
Unclear about the present

How well can you predict the outcome of your actions?

How much do you know about the situation?

Volatile, Uncertain, Complex, Ambiguous
Systems Response
Whole Eco-System: Universal Design in Education

The Design & Engagement Process must operate at all scales, from Macro to Micro, and it must include all stakeholders at all levels, while fully considering how they interact at each level and between levels.

UD - Placing Learning at the Centre of the Community - At the Macro, Meso & Micro Scale

Integrated & Strategic Planning with a long-term view that operates at all scales and considers how the physical journey from home to classroom caters for student 'access, participation & progress'.

http://universaldesign.ie/Built-Environment/Shared-Education-Campuses/
National Hierarchy for Systems Change

- Policy
- Legislation
- Quality Assurance
- Standards
- Regulations/Codes of Practice
- Guidelines/Toolkits
- Training and Supports - Champions

Adapted from NSW Gov Australia (with permission)
Systems Change Process
3 I’s

Initiation
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Access and Inclusion Model (AIM) 2016 –
Provides supports designed to ensure that children with disabilities can access the Early Childhood Care and Education (ECCE) Programme.
GOAL: Empower pre-school providers to deliver an inclusive pre-school experience, ensuring that every eligible child can meaningfully participate in the ECCE and reap the benefits of quality early years care and education.
AIM is a child-centred model, involving seven levels of progressive support, moving from the universal to the targeted, based on the needs of the child and the pre-school service.

Department of Children and Youth Affairs
A Model to Support Access to the ECCE Programme for Children with a Disability

1. An Inclusive Culture
2. Information for Parents and Providers
3. A Qualified and Confident Workforce
4. Expert Early Years Educational Advice and Support
5. Equipment, Appliances and Minor Alterations Grants
6. Therapeutic Intervention
7. Additional Assistance in the Pre-School Room

LEVEL OF SUPPORT - from universal to targeted

LEVEL OF NEED - from non-complex to complex
Universal Supports (Levels 1 – 3 of AIM)

Universal supports are designed to promote and support an inclusive culture within pre-school settings through educational and capacity-building initiatives.

A new Inclusion Charter has been developed and pre-school providers are invited to sign-up to this Charter by producing and publishing their own Inclusion Policy. To support this process, updated Diversity, Equality and Inclusion. Guidelines for Early Childhood Care and Education have been produced and a national training programme on the Inclusion Charter and the Guidelines is being delivered.

A new higher education programme, “Leadership for Inclusion in the Early Years” (LINC), commenced in 2016. The Department of Children and Youth Affairs funds approx 900 places per annum, over 4 years, on this programme. Pre-school settings employing a LINC graduate (who has agreed to take on the role and responsibilities of Inclusion Co-ordinator within their pre-school setting) will attract an increase of €2 per child per week in the rate of ECCE capitation payable to that setting.

Multi-annual programme of formal and informal training for pre-school staff in relation to disability and inclusion will be funded by the Department of Children and Youth Affairs and will be delivered by a number of agencies.
Targeted Supports (Levels 4 – 7 of AIM)

Expert advice, mentoring and support is available from a team of 60 Early Years Specialists in early years care and education for children with disabilities and are based in the Better Start National Early Years Quality Development Service.

The provision of specialised equipment, appliances and grants towards minor building alterations (universal design guidelines) which are necessary to support a child’s participation in the ECCE Programme.

Therapy services, which are critical to a child’s participation in the ECCE Programme, are available through AIM and will be provided by the HSE.

Additional funding for extra support in the classroom or to enable the reduction of the staff to child ratio.
Universal Design Guidelines for Early Learning and Care Settings

June 2019, the Minister for Children and Youth Affairs, Dr Katherine Zappone, launched the **Universal Design Guidelines for Early Learning and Care Settings**. These guidelines are an important step in making all Early Learning and Care services accessible to all children. This publication offers guidance on the refurbishment, renovation and building of centres for Early Learning and Care in Ireland.
The Universal Design Guidelines for Early Learning and Care Settings

1) Literature Review
2) Guidelines
   - Introduction
   - Section 1 – Site Location, Approach and Design
   - Section 2 – Entering and Moving
   - Section 3 – Key Internal and External Spaces
   - Section 4 – Elements and Systems
   - Appendices, Case Studies and Design Brief
3) Audit Tool
   - Self Audit Tool for ELC Settings
Universal Design Guidelines for Early Learning and Care Settings
“In choosing a preschool for my daughter, the location with outdoor space to play and explore was very important.”

“I think every age group is considered, both in the indoor and outdoor areas. There is something for them all to do, especially outdoor. Kids get to be kids and use their imagination.”
Key Early Learning and Care Policy and Best Practice

Key Design Issues as Framed by Selected Siolta Principles

The Siolta principles present a good framework to examine how UD can help to provide a built environment that supports the aims of inclusive, child and family centred Early Learning and Care policy in Ireland. While all 16 Siolta standards have some bearing on the built environment, there are 7 Standards that are directly relevant to Universal Design. Siolta Standard 2 pertains to Environments and this standard highlights how a child’s physical environment has a direct impact on their well-being, learning and development. The Environments standard therefore underpins all aspects of these guidelines and provides the backdrop for the other 6 Siolta standards.

The standards are:

<table>
<thead>
<tr>
<th>Rights of the Child</th>
<th>Interactions</th>
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<tbody>
<tr>
<td>Provide spaces and settings that are:</td>
<td>Provide settings with:</td>
</tr>
<tr>
<td>designed so children can circulate and associate with their peers and with older or younger children in mixed age situations.</td>
<td>indoor and outdoor spaces where adults and children can interact with each other, or where children can be alone.</td>
</tr>
<tr>
<td>facilitates children’s choice.</td>
<td>a mixture of large and smaller indoor and outdoor spaces for children to navigate and explore to maximise children’s talking, listening and overall engagement in learning.</td>
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<tr>
<td>provides opportunities for children to express their voice and individuality.</td>
<td>a range of experiences to provoke inquiry or stimulate the imagination placed in central spaces to support collaborative, inquiry-based learning for all children.</td>
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<tr>
<td>enables children to be appropriately independent.</td>
<td>dining spaces that echo the home and position cutlery and plates at children’s level to support independence.</td>
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The built environment implications of these Siolta Standards are discussed in the following pages.
Universal Design supporting ELC - UD in Typical Settings

1. Small scale single room setting attached to a private dwelling

Setting 1 is a small single room seasonal service with 14 children that is directly attached to a private home on a large rural site. The setting has an independent front entrance and a dedicated play area to the side that is enclosed with a fence.

Some typical UD features evident in this plan:

A. 3400mm wide public footpath that is clear of obstructions and is flat, even, well-drained and has a non-slip and non-glare finish.
B. Site entrance is easily identified and accessed from the public road and footpath. Footpaths to have dropped kerbs at the entrance to provide easy access for all users.
C. Simple and clear signage at the site entrance to identify the setting on approach.
D. All access routes within the site are smooth and solid underfoot (i.e. no gravel or pebbles) with non-slip and non-glare finishes that avoid strong patterns or sharp colour contrast.
E. Accessible parking space (6000x4800mm) provided along with a parent and child spaces (4800x3600mm). For safety reasons, parking is reverse only so that when children are entering or leaving the back seat of a car they are at a greater distance from the road. Appropriate signage is provided to inform drivers.
F. Covered entrance creates shelter and provides a transition area between inside and outside. This also makes the entrance clearly visible and easy to identify.
G. Level entry front door with double doors for easier access (primary opening leaf with a clear width of 1000mm)
H. Level exit to external play area through double doors (primary opening leaf with a clear width of 900mm).

Legend
- Signage
- Accessible parking
- Parent and child parking
- Accessible WC
National Utilities Suppliers — Gas, electricity, Water

New 2020

Monitoring & Quality Assurance

Adopted from NSW Gov Australia (with permission)
Universal design and Higher Education in transformation congress

https://www.udheit2018.com/

Universal Design & Higher Education in Transformation Congress

30th October – 2nd November 2018, Dublin Castle

Dublin Castle - Halloween 2018

120 Papers – 42 Workshops
Universal Design for Learning

The most pervasive learning disability in schools, and the number one challenge for Universal Design for Learning, isn’t physical or cognitive, it’s emotional—turning around kids who are turned off by school.

- David Rose  Keynote Speaker 2015 Dublin
Man is least himself when he talks in his own person. Give him a mask, and he will tell you the truth. — Oscar Wilde

We humbly request and give you permission to leave your “Mask” behind and lead with your hearts and souls.

Man is least himself when he talks in his own person. Give him a mask, and he will tell you the truth. — Oscar Wilde
Thematic Analysis of the UDHEIT 2018
Transformation Required In Education
Legislation has to be designed with clear values and vision – equality and human rights (UNCRPD) – not just social model.
Change - Macro Level

United Nations Economic and Social Commission for Asia and the Pacific

Beijing Declaration, including the Action Plan 2017
Develop, adopt and implement laws and regulations to promote universal design and accessibility in the built environment, information and communications technology ecosystems, facilities and services at all levels of government and in the private sector, including by:

(iii) In collaboration with academic institutions, providing training programmes on universal design for policymakers, building inspectors and contractors, and integrating universal design and accessibility into higher education curricula related to architecture, urban planning, transport, civil engineering and other relevant academic branches;
Moving from Multiculturalism To Interculturalism From Silos to Dialogue Across boundaries
Change - Macro Level

Norway:
Leadership and Active Role – political, administrative, professional and economic resources - 13 laws and 53 sets of regulations on UD – cross sectoral Education, transport, ICT etc..

Denmark: - Built Environment
Spatial Quality Versus Spatial Equality – Proposed solution - UD paradigm as a means to implement spatial equality as a feature of spatial quality

India – Modi – national campaign on universal Accessibility
Obstacles and Challenges

Poor Design
Focus on Compliance
Moving Forward
Change - MESO Level – Organisation

University Of Brescia: - implementation requires a number of conceptual and operational shifts on multiple levels:

1) designing learning environments that take **student diversity** as a starting point,
2) **Dynamic** interaction between people and their biological, physical, social, technological environments
3) **governance and policies**, physical, administrative, instructional, technical, and communicative environments and policies need to be systematically described and assessed in order to either plan their initial development or transformation.
Ensuring Universal Design of ICT: Triggering the Triggers!

Miriam Eileen Nes BEGNUM NTNU Norwegian University of Science and Technology, Department of Design
## 15 Critical Factors

### Hygiene Factors or Critical Success Criteria (CSC)

- 1. Legislative Support (Societal)
- 2. UD Awareness, (Organizational)
- 3. UD Priority (Organizational)
- 4. Continuous Focus (preferably iterative, Processual)
- 5. Cross-disciplinary Team Collaboration (Processual)
- 6. Enough Time & Budget (Processual)
- 7. Enough Equipment & Human Resources
- 8. UD Mindset (Personal)
- 9. Interest in UD (Personal)
- 10. Enthusiasm about UD (Personal)

### Motivators

- 1. Strategic UD Competence Building (Organizational)
- 2. Requirement Specification of UD (Processual)
- 3. UD/UX Needs Integration (Processual)
- 4. User Testing (preferably with real and disabled users, (Processual)
- 5. Internal quality control (code validation, inspections etc.) (Processual)

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Ensuring Universal Design of ICT: Triggering the Triggers!
Micro Level - Practice “Know- Do Gap”

Educating the Educators on Diversity and participation
Supporting teachers through UDL

- Lack of knowledge of educators on how diverse student groups actually learn
- Tendency to promote accessibility rather than inclusion
- Good supports for students with documented disabilities – but stigmatizing
- Spatial awareness Training for educators – redesign classroom
- => developing course modules through UDL
- => need to provide technical design solutions

“Greensboro College – a Model of UDL in the Curriculum”
- Fully committed to embracing UDL e.g. Forensic Anthropology, Criminal Justice department
- Uses multiple means of representation, expression, and engagement
- => ‘process is labor intensive and messy but the product is worth it’
Can’t be taught has to be facilitated

Elizabeth Sanders Keynote and workshop
‘Bringing Human Diversity into Design Processes Through Empathic Modelling’

- Designing for the extremes
- Simulating diversity
- Co-designing
- Engaging with people in the community

Lena LORENTZEN, Design Department, Mid Sweden University, Sweden
Per-Olof HEDVALL, Certec, Department of Design Sciences, Lund University, Sweden
Whole Systems Change

• Inclusion to be adapted at a systems level – linked across silos

• Adapting Universal Design is the ‘highest expression of a person-centred planning philosophy’ – Students at the core

• Person centred classification system for all learners – ICF (WHO International Classification of Functioning) – describes who the learners are entering Education

• Creativity and Imagination – achieve breakthrough UD concepts As well as adapting and adjusting Exiting products, services and facilities
Whole Systems Change

• “Mind your Language”
• Constant improvement – ‘its messy but worth it’
Universal design and Higher Education in transformation congress

https://www.udheit2018.com/

Legacy of UDHEIT 2018
IOS Conference Proceedings
Arrow Publications

Book of Abstracts - Paper Sessions

Book of Abstracts - Workshops

Conference Keynote Recordings
5th International UD Conference
15-17th June 2020 Helsinki

Ud2020.aalto.fi