



# Celebrating Inclusion and Diversity in the Classroom:

Explorations with Pre-service Teachers on the Implementation of UDL Principles in School Placement

Dr Pauline Logue

Galway Mayo Institute of Technology



NATIONAL FORUM  
FOR THE ENHANCEMENT OF TEACHING  
AND LEARNING IN HIGHER EDUCATION



# Overview

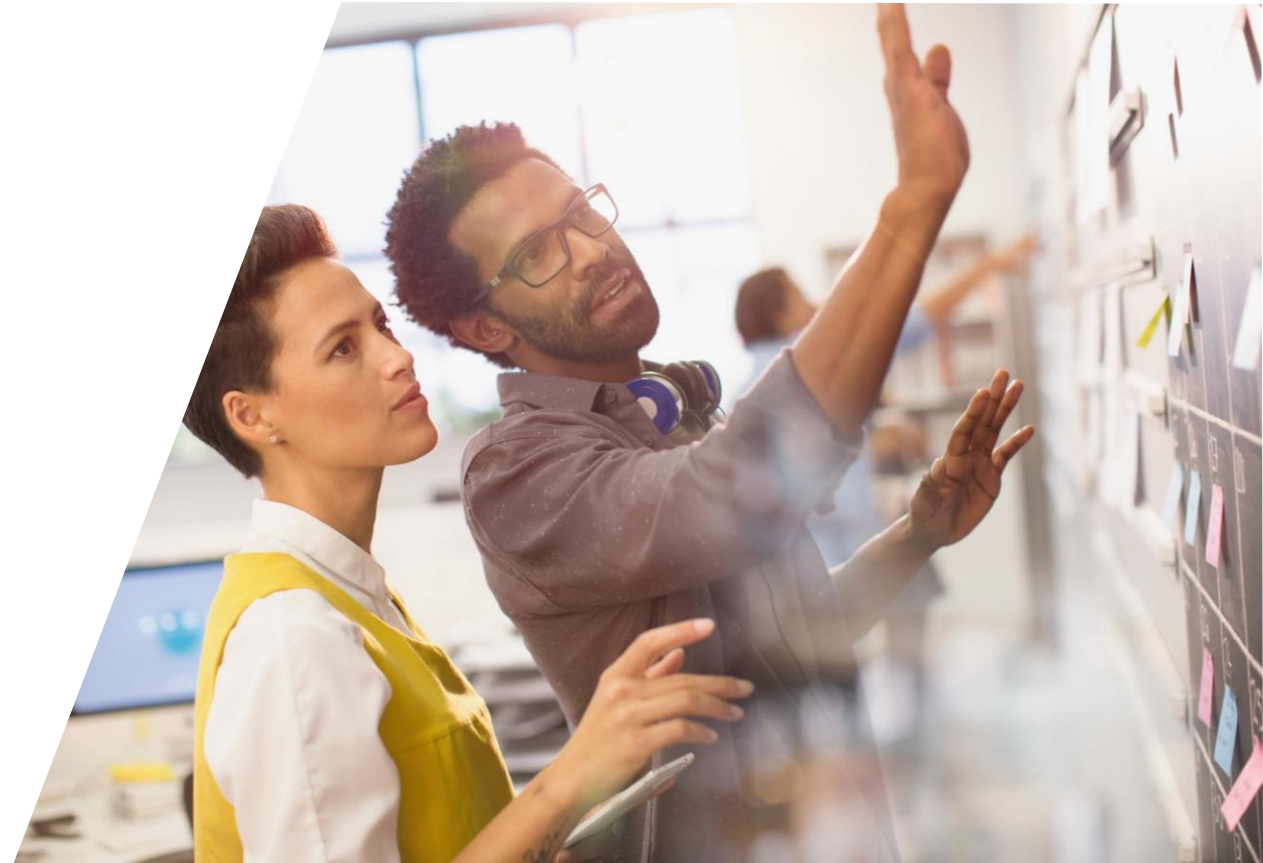
- Context: Initial Teacher Education (GMIT)
- UDL Principles Applied to Initial Teacher Education (ITE)
- Differentiated Learning & UDL
- Action Research Pilot Study
- Redesign Activities
- Challenges
- Post-implementation Reflections
- Recommendations



**CONTEXT**

# Context : Initial Teacher Education (GMIT)

- Department of Creative Education (GMIT)
- Pre-service Technical Teachers
- Online ITE Delivery
- Embedding UDL Training in School Placement 3&4
  - MS Teams chat posts
  - MS Forms Questionnaire
  - MS Channels-Group Work
  - Self-Reflection Worksheet
  - 5-Point Action Plan



# **UDL PRINCIPLES APPLIED TO ITE**

# Universal Design for Learning (UDL): Principles

Multiple Means of  
Engagement

Multiple Means of  
Representation

Multiple Means of  
Expression/Action

# UDL Implementation in Initial Teacher Education

## Multiple Means of Engagement

- Interactive online lecture-‘lollipops’
- MS Teams channels & chat
- MS Forms Questionnaire
- Self-reflection worksheet
- Moodle Forum
- Socratic Questioning

## Multiple Means of Representation

- Videos
- Audios/Podcasts
- PowerPoint
- Word/Text
- Excel
- SolidWorks/CAD
- Questionnaire
- Teaching Applications

## Multiple Means of Expression/Action

- MS channels group work activities
- MS Teams chat posts
- MS Forms Questionnaire
- Self-reflection worksheet
- Learnonline forum Post-UDL Action Plan
- Teams teaching
- Teams channel learning tasks

# **DIFFERENTIATED LEARNING & UDL**



# Differentiated Learning V Universal Design for Learning

- Differentiated Learning
  - \*Teacher centred
  - \*Teacher planning
- Universal Design for Learning
  - \*Student choice
  - \*Student flexibility
  - \*Student ownership of learning



Novac, K. (2017) What is UDL? YouTube Video

# **REDESIGN ACTIVITIES**

# Redesign Activities

- School Placement Planning Grids
- PowerPoint Redesign
- Self-reflection Worksheets
- 5 Point Action Plan
- Moodle forum critical reflections



# Planning Grid Redesign 1








4)

*Micheal Walsh (year*



Galway Hooker Model Making		
Student Name: Micheál Walsh	School: Scoil Phobail Mhic Dara	Class teacher: Michael Griffin
ID: No: G00363780	No of Pupils: Unknown	Length of Lesson: 80 minutes & 40 minutes
Class profile		
Transition Year Galway Hooker model making module.	Diversity (Gender, Ethnicity etc.)	Other relevant information



Schedule	 Curriculum	 Relevant LC Outcomes	 Learning Intentions (students will learn about)	 Teaching Methodology	 Success Criteria	 Assessment Method	 Key Words
Week 1	Traditional Hooker <b>H+HG</b> Boat building <b>HG</b> Construction details <b>K</b>	19. appreciate the importance of the architectural past in influencing our contemporary built environment and attitudes to design and craft 6. develop the skills associated with processing materials 20. recognise the relevance and importance of elements associated with conservation and	<ul style="list-style-type: none"> <li>The history and heritage associated to the Galway Hooker boat.</li> <li>The importance of the Galway Hooker to the community before the infrastructure of road and rail networks.</li> <li>Local boat builders in the region.</li> </ul>	<ul style="list-style-type: none"> <li>Ice breaker Game</li> <li>TG4 Documentary (Badoiri)</li> <li>PowerPoint</li> <li>Posters</li> <li>Discussions</li> </ul>	<ul style="list-style-type: none"> <li>Identify different classes of the Galway Hooker.</li> <li>Extinguish construction methods</li> <li>Establish the importance of the Galway Hooker in the community.</li> </ul>	<ul style="list-style-type: none"> <li>Questioning</li> <li>Worksheet</li> <li>K.W.L</li> <li>Poster and presentation launch</li> </ul>	<ul style="list-style-type: none"> <li>Bád</li> <li>Pucán</li> <li>Dair</li> <li>Learóg</li> <li>Saor</li> </ul>

# Planning Grid Redesign 2

Gillian Spindler (year 3)



Week 2	SOL 15	Ellipse: Concentric Circles Method	<p>1.1 Visualise the manipulation of 2D shapes</p> <p>1.2 Analyse graphical information for the planning of a 2D solution</p> <p>1.3 Derive 2D solutions using appropriate media</p> <p>1.6 Apply their understanding of geometric principles to solve problems</p> <p>1.10 Understand the properties of geometric shapes</p> <p>3.5 Analyse and evaluate both their own work, and the work of others</p> <p>1.12 Construct 2D solutions accurately in accordance with graphical conventions.</p>	<p>Understand the term Concentric Circles</p> <p>Construct Ellipses using concentric circle method</p> <p>Construct Ellipses at different angles using concentric circle method</p> <p>Draw tangent from point on ellipse</p> <p>Solve given ellipse questions</p>	<p>2e. Learning with others</p> <p>3a. Using language</p> <p>3b. Using numbers</p> <p>1c. Learning Creatively</p> <p>4d. Reflecting on and evaluating my learning</p> <p>7e. Developing my spoken language</p>	<p>PowerPoint UDL</p> <p>Teacher Demonstration UDL UDL</p> <p>Visualiser UDL UDL</p> <p>Quickly sketch what you think it will be in your head activity G UDL UDL UDL</p> <p>Word wall L UDL</p> <p>Worksheets G UDL UDL</p> <p>Ellipse Questions</p> <p>Self-assessment and Self-reflection worksheet L UDL UDL UDL</p> <p>Animated videos/gifs in PowerPoint UDL UDL G</p>	<p>Students show an understanding of previous week during recap activity G UDL UDL</p> <p>Students can draw concentric circles from given dimensions for Major and Minor axis UDL G L</p> <p>Students can describe verbally what the term concentric means O</p> <p>Students can locate foci of Ellipse UDL G</p> <p>Students can construct an Ellipse accurately and neatly using the concentric circles</p>	<p>Teacher Observation</p> <p>Worksheets G UDL UDL</p> <p>Thumbs up/ thumbs down UDL UDL</p> <p>Teacher Questioning O</p> <p>Self-assessment L UDL UDL</p> <p>Self-reflection L UDL UDL</p>	<p><b>New Words</b></p> <p>Concentric</p> <p>Concentric Cir</p> <p>Auxiliary</p> <p>Auxiliary Circle</p> <p><b>Revision Words last week</b></p> <p>Conic</p> <p>Cutting Plane</p> <p>Ellipse</p> <p>Parabola</p> <p>Focal Points /</p> <p>Axis</p>
--------	--------	------------------------------------	---	--	--	---	---	---	--

# PowerPoint Redesign

Corie Kileen (year 3)



## Rules in the classroom

- Take your seats according to the seating plan
- Journal on your desk at the start of every class
- No talking while the teacher is talking
- Respect for everyone
- Take care of the equipment in the room
- Homework to be done on time
- Sanitise your work area and equipment at the end of every class



## Activity

Icebreaker

Introduction to the WT

Design Thinking & Sket

Marking Out

Recap & Review Checkl

Tidy up & Sanitise

09:25

09:35

09:50

09:55

## Sanitise

Equipment  
the bin



desk and seat



## Topic

The Ellipse		
The Ellipse		
The Ellipse		
Parabolas		4
Parabolas		5
Developments		6
Developments		7
Developments		8

# Reflection Redesign

Education Studies: Universal Design for Learning

Dr. Pauline Logue



## **UNIVERSAL DESIGN FOR LEARNING & SCHOOL PLACEMENT**

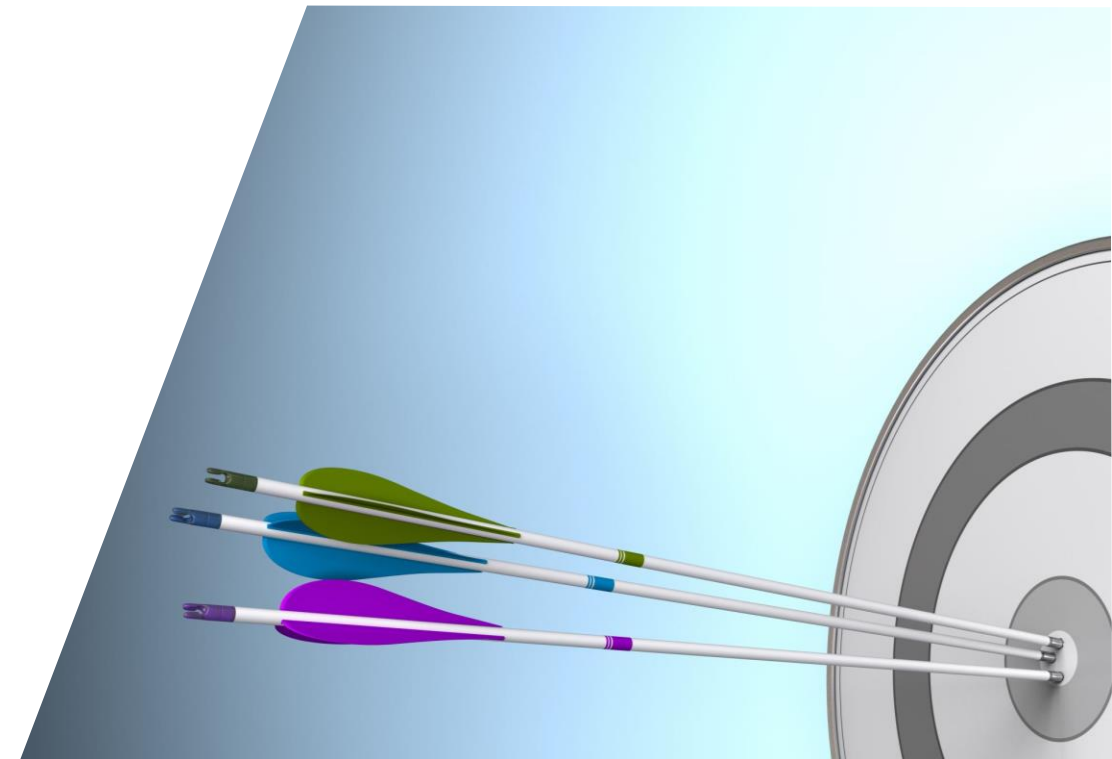
**This worksheet is designed to support pre-service teachers to reflect on UDL planning, in the context of school placement preparation.**

**STUDENT PROFILE**

# Planning Redesign- UDL 5-Point Action Plan

*Philip Kiernan- Year 4*

- “Use flipped classroom setting to allow individual students to teach each other”.
- “Use YouTube videos where possible to explain step-by-step approaches to tasks”.
- “Allow students research independently when choosing design features”.
- “Allow students communicate using various methods (draw, speak, paint, act)”.
- “Use animated PowerPoint instead of text-heavy slides”.





# School Placement Assessment Rubric Redesign

## REVIEWED LESSON(S): FEEDBACK ON CORE SKILLS *(please tick or highlight)*

Core Skills (as relevant to the mode of delivery)	Poor	Fair	Good	V. Good	Excel
<b>Preparation &amp; Planning:</b> Knows pupils' names; seating plan; folders are fully up to date, detailed lesson plan, variety of professional original lesson resources that are source referenced (author's name).					
<b>Lesson Structure:</b> 1. set induction (orderly start, recap, learning intentions & plan for the lesson), 2. A planned series of new active learning activities & 3. closure (reinforcement of learning, active recap, homework, tidy, orderly exit)					
<b>Teacher Presence &amp; Communication Skills:</b> Respectful command of the learning; demonstrates competence and confidence, clearly breaks down the new learning, reinforces learning throughout the lesson, clear <u>instructions</u> and explanations; examples.					
<b>Classroom Management:</b> Clear rules & routines, clear instructions, orderly transitions, positive working climate, applies code of behaviour.					
<b>Numeracy, Literacy, Oracy &amp; Graphicacy:</b> plans for <u>N,L,O</u> & G strategies which are visibly and explicitly promoted in ALL lessons.					
<b>Active Teaching Strategies:</b> Uses a variety of active teaching strategies for recaps and new learning – introduces new strategies weekly.					
<b>Differentiated Learning</b> – Planning for difference. Mixed Ability, GLD (General Learning Difficulties), SEN (Special Education Needs)- research signs and symptoms & strategies for the classroom.					
<b>Diversity and Inclusion</b> strategies – UDL; Gender & Intercultural Inclusion					



# **ACTION RESEARCH (PILOT STUDY)**

# Research Methodology & Methods

- Initial pilot exploratory research
- Organic inductive research
- Action research framework
- Student-perspective qualitative research
- Online data gathering tools & processes:
  - [MS Teams chat posts](#)
  - [MS Forms Questionnaire](#)
  - [Self-Reflection Worksheet](#)
  - [5-Point Action Plans](#)
  - [Moodle Forum Critical Reflections](#)



# MS TEAMS Chat Reflections - Preservice Teachers' Voices

- “UDL is about allowing students to learn in the best way that is possible for them individually”
- “Interesting to see how much I was already using UDL without realising it and where it could be used more to better facilitate all learners”
- ...“we can now aim to integrate it [UDL] into our lessons allowing for engaging learning suited to various types of learners”.



# MS FORMS - Preservice Teachers' Voices

I can integrate this [UDL] into SP3 by

- "... allowing video, audio or written options for self-reflection, using rubrics ..."
- "... ensuring accessibility of class content and notes, using textbooks that offer e-books...."
- "... asking students to display the information in what ever form suits them individually... draw/act/talk... "



# Research - Emergent Challenges

- Significant additional time demands involved in the creation of UDL-aligned teaching resources.
- Confusion on the part of some pre-service teachers on the distinction between differentiated learning and UDL.
- Inconsistent assessment of UDL on School Placement.



# UDL Post-implementation Personal Reflections

- Increased personal awareness of access/diversity challenges.
- Need to constantly inform myself- literature & CPD
- Need to further model best practice UDL for pre-service teachers.
- More comprehensively and incrementally embed UDL into the curriculum, across years 1 to 4
- Facilitate SP Tutors' training in UDL
- Co-design model sample teaching resources with pre-service teachers, to consolidate UDL practices
- Co-design innovative teaching and learning activities with pre-service teachers, to consolidate UDL practices
- Conduct formal Action Research



# Recommendations

The study recommends:

- Incremental implementation of UDL across the four years of the programme, allowing for greater impact, and greater sustainability.
- Staff training on UDL for School Placement lecturers and School Placement tutors in order to raise awareness and achieve a consistent programme board approach.
- A formal action research study (2021-2022) – iteration 2 -





# Acknowledgements

- National Forum for the Enhancement of Teaching and Learning
- Dara Ryder & Trevor Boland - AHEAD
- Lisa Padden - UCD
- Laura Hegarty- GMIT- UDL Mentor
- Cormac Flynn & Orla Skehill - GMIT (Triad partners)



# References

All images are open source, from creative commons.



**THANK YOU**