



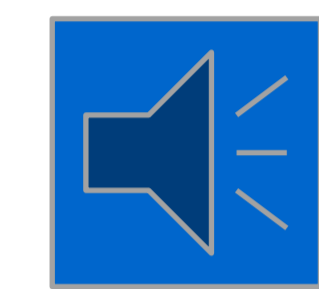
# Assessment of graduate attributes: priming for & observing elective vaccines debates.



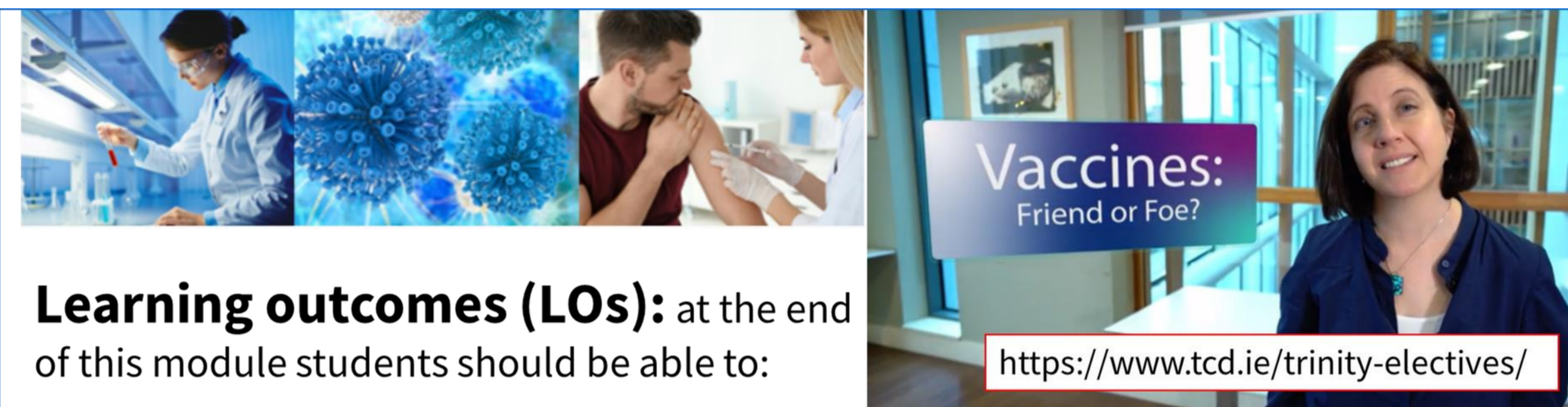
**Introduction:** Trinity 'Graduate Attributes' (GAs), namely to think independently [TI]; to communicate effectively [CE]; to develop continuously [DC]; and to act responsibly [AR] represent ways of behaving. Knowledge, skills and personal attributes underpin behaviour, and attributes, in particular, can be challenging to assess. Curriculum design must scaffold opportunities for students to develop and evidence attainment of these GAs at multiple points in undergraduate programmes(1). At Trinity, stand-alone Elective modules delivered across one semester, are designed to support and evidence this developmental process(2).



**Aim:** This poster reports the approach taken to workshop design (3-5) to scaffold student demonstration of graduate attributes (GAs) in a Trinity Elective module 'Vaccines: Friend or Foe'(2), and to partner with postgraduate teaching assistants (TAs) to assure a sustainable means of GA assessment, at multiple points, for each student undertaking the module.



**Background:** Electives may be taken by undergraduate students from across the University in the second and third years of Degree programmes (2). Critical review of theory and practice of vaccine development and use, primes students for engagement during in-person workshops and online. Sequencing of individual and group activities, prior to and during workshops, intentionally drive cycles of individual reflection, and peer interaction and debate (3,4).



**Learning outcomes (LOs):** at the end of this module students should be able to:

1. Explain the basic principles of vaccination.
2. Identify different types of immune responses and how they can be beneficial.
3. Evaluate the wider societal implications for (non)-vaccinations
4. Reflect on how they personally make ethical decisions and how this may be influenced by others
5. Communicate to and inform a general audience about vaccines.

**Approach: stimulating informed debate**

- Logic, role-play and peer interaction/ debate support development of competencies that underpin reasoning through ambiguity in an ethically defensible manner (3-5).
- Lectures introduce students to relevant logic i.e. scientific, social and ethical concepts relevant to vaccine development and use (2).
- Individual activities/ tasks force role-play and the taking of others' perspectives (3-5).
- Group task' design drives discussion, debate and negotiation to enable observation of relevant student behaviours 'in action' (3-5).



## Workshop(s) design and sequencing of activities.

### Workshop design: activities and sequencing adapted to drive interaction

1: Individual analysis and response	Individually identifies ethical concepts in the dilemma scenario, and proposes and justifies what actions might be taken to resolve dilemma(s), responding prior to accessing provided options (Part 2)
2: Individual decisions	Rates the 12 action options (provided by academics), and then ranks three most and least preferred options. This process primes individuals prior to group discussion, debate and decision-making.
3: Group discussion and decision(s)	Assigned to groups of 5-6 for a defined time-frame, students share individual action choices, and (a) agree three most and least preferred options and (b) provide advice to resolve the dilemma.
4: Workshop2 engage various perspectives	Groups are assigned one of 3 perspectives on the scenario. Groups pitch for government funding from their assigned perspective. Researcher.....Healthcare professional...Pharma shareholder
5: Reflect and group agree final advice.	Students reflect on pitches from other 'perspectives', and the group collates reflections to optimize the funding pitch (to the Minister) Students submit final pitch, plus their reflections, for assessment.

## Observing GA behaviour(s): Workshop 2 Assessment design.

TA name:	Workshop 2: Scenario		
Date:	Student ->		
	Chair	Scribe	
Workshop outline			
Overall prework:			
Post ~200 personal word response (Online)			
Rank personal options (online)			
Bring response to Workshop 2			
Graduate Attributes			
Thinks Critically (TI)			
Thinks Creatively (TI)			
Listens, persuades and collaborates (CE)			
Has language skills (CE)			
Has confidence to take measured risks			
Is capable of adapting to change (DC)			
Is an effective participant in teams (AR)			
Is ethically aware (AR)			
Workshop activities			
Present pre-formed opinions to group (1-2 mins)			
Agree group options and post to forum			
Pitch to minister/answer questions/pose questions from floor			
Submit final group pitch for minister (after WS2)			
OVERALL MARK OUT OF			

Completes prework as required and engages in activities in Workshop 2 to demonstrate the ability/-ies to 'Think independently' [TI], 'communicate effectively' [CE], 'develop continuously' [DC] and 'act responsibly' [AR]. Mark out of 6 according to rubric provided.

- Supported by detailed rubrics, teaching assistants (TAs) guide 12-20 students throughout the module including: completion of pre and post work, management of online/ forum submission of assignments, and engagement during workshops.
- Each student must be observed demonstrating at least one behaviour related to each TCD GA.
- Checklist design aligns with behaviours indicative of TCD GAs.
- If a student has not been observed demonstrating any of the TCD GAs by the time of the 'pitch' to the Minister, TAs alert academic staff.
- Academic staff (CR & CG) assure that these students demonstrate GAs appropriately during Q&A sessions.



## Key findings:

- Priming students for discussion, debate and negotiation (4,5), using an adapted format of an evidence based approach to the development of reasoning abilities, drives observable behaviours that can demonstrate targeted graduate attributes [TI, CE, DC, AR] in an assessable manner.
- TAs can assure assessment of the development of GAs in large cohorts of students during interactive workshops led by one or two academics, provided appropriate rubrics and checklists are developed & practiced.
- TA confirmation that each student demonstrates GAs in an authentic manner addresses common concerns regarding groupwork, and risks to assessment integrity where students might 'freeride' on others' efforts.

## Academic staff (n=6) and TAs (n=15): survey responses and feedback

The way in which the module was designed did an excellent job in encouraging the students to participate and interact (TA)

Great for staff to have an assessment design that facilitates 'hard to measure' attributes (Staff)

These action options helped the students to engage in discussion about the scenario and provide personal opinions (TA)

Checklists allowed for ease of student assessment whilst encouraging students to engage appropriately and effectively (TA)

Wonderful engagement of students with the workshop. They are busy, happy and learn about others and themselves (Staff)

Student' ranking choices align with expert and TA responses (Staff)



## References:

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5. Penn, W.Y. Teaching ethics—A direct approach. *J. Moral Educ.* **1990**, *19*, 124–138.