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# Inclusive Postgraduate Teaching in the Department of Chemistry – A Tool to Improving Assessment and Feedback

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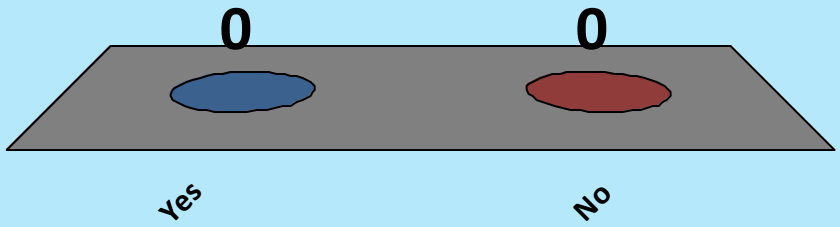
#YorkLT15

# Content

- “Demonstrator”
- Postgraduate students as partners
- Our bespoke training package – translational?
- Practise what you preach
- New developments
- Conclusion

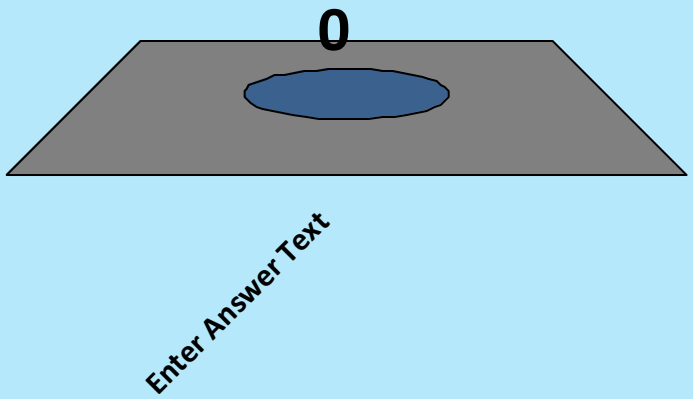
# Do you know what the term “demonstrator” means?

A. Yes
B. No



# What skills/tasks do you expect demonstrators to be able to exhibit/complete?

A. Enter Answer Text

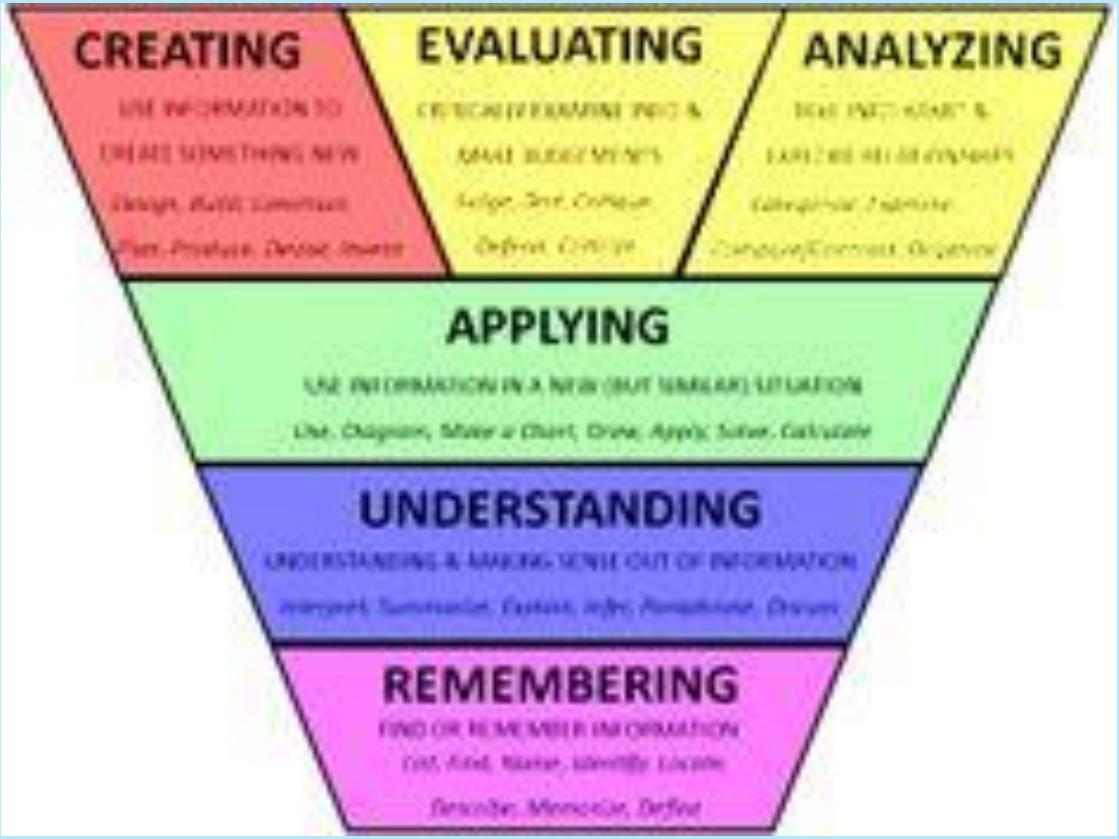


# Is the word “demonstrator” appropriate?

- Accurately reflects skills developed
- Duties clear to future employers
- Recognised internationally (both for incoming postgraduates and life beyond study)

- “Graduate Teaching Assistant (GTA)”

# What “we” get




- “Close the gap between surface and deep learning”

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# What the GTA's get

## Public engagement lens on the Researcher Development Framework

vitae realising the potential of researchers | Researcher Development Framework

"The most important benefits I have gained from these public engagements are to see the influence of my research, and to have gained the communications skills to be able to get the research across to any audience I am put in front of."

Dr John Drury, University of Sussex

"We developed an engagement process over seven months....the benefit to our research came from harnessing this local knowledge to generate a distinctive research agenda for urban sustainability. Issues had emerged on crime, safety and community cohesion which we had not expected."

Professor Malcolm Eames, Research Chair with the Low Carbon Institute, based at the Welsh School of Architecture

Working with people outside higher education requires an ability to discuss research with a variety of audiences to build trust, understanding and collaboration, work with others to develop effective projects and effective partnerships.

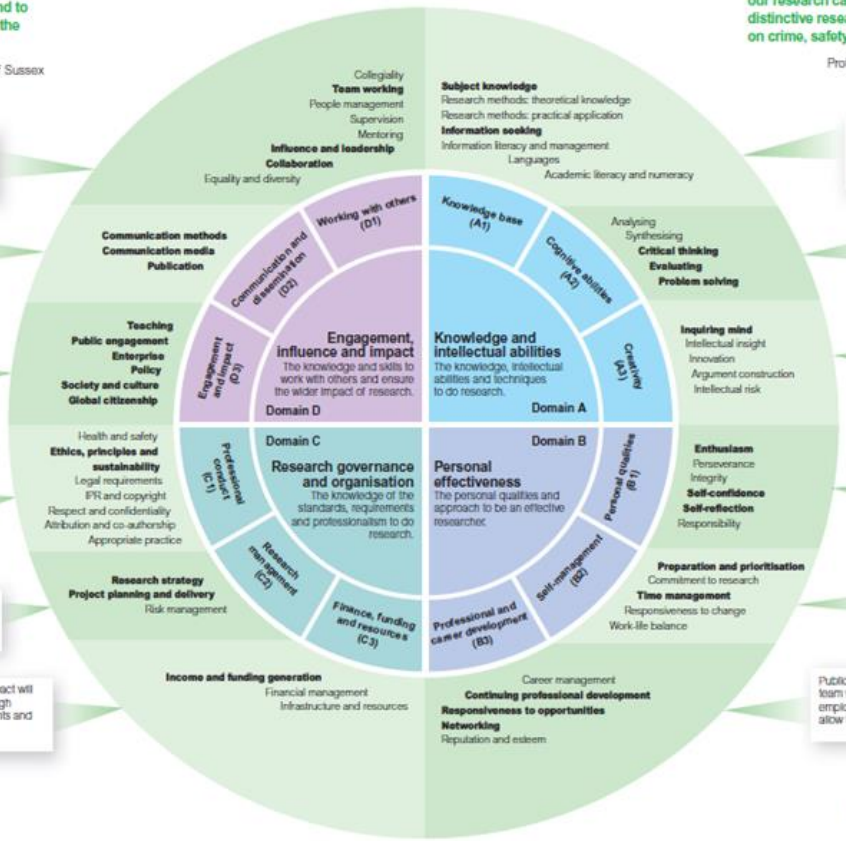
Engaging with the public enables researchers to use and develop their communication skills including presenting, writing, listening and facilitating. To develop effective engagement work requires an ability to recognise the different purposes for engaging with others, and ensure that the engagement work is appropriate to the purpose and the audience.

Engaging with the public enables researchers to develop an understanding of the social context of their work (including ethical implications and public attitudes) and helps researchers understand how to ensure their research has relevance to and impact on society.

Engagement projects range from collaborative projects, consultation projects, and informing projects that seek to inspire and engage people. Public engagement projects develop researchers' understanding of how to engage with people outside of their research group, and will develop skills of empathy, listening, communication and respect for others.

The majority of public engagement activity requires an ability to plan and deliver, and provides a relatively easy way to use and develop these skills. It can enable a researcher to develop and utilise their evaluation skills.

An understanding of public engagement as one of the key pathways to impact will enable engaged researchers to communicate impact more effectively through funding proposals, Research Excellence Framework (REF) impact statements and case studies.




Engaging with the public can stimulate the development of a researcher's subject knowledge; provide an additional source of information, knowledge or expertise to feed into their research; and help develop a better understanding of the relevance of their research to society.

Public engagement uses and develops critical and original thinking and can enable a researcher to approach their research from a new perspective. A key part of public engagement is conducting appropriate evaluation and using problem solving skills, which are key skills to apply within research.

Developing an inquiring mind and being open to new sources of ideas is an integral part of understanding and responding to the publics' views on their research. Public engagement can help increase a researcher's awareness of their research and how this impacts on society.

Engaged researchers report that the public's interest in their research reignites their enthusiasm and passion for their research area; is a great confidence booster; and may provide new perspectives on their research. Public engagement helps researchers pro-actively consider the ethical and social implications of their research to ensure research integrity.

Public engagement can provide an opportunity to apply and develop skills in running projects, which can utilise and develop skills such as time management, preparation and prioritisation.

Public engagement uses and develops transferable skills such as communication, team work, creativity, networking and project management. This can enhance employability both within and outside academia, raise researchers' profiles; and allow them to enhance their reputation and relationships.

"You can only truly know your research when you can explain it easily to anyone."

Charlie Mydlarz, Salford University

"Public engagement re-enthused me about my research. It was fun, new and creative."

Bennett Young, University of Manchester

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# How do we achieve this?

- GTA Training is a 10 week course
- 5 Stages
- 1: Introduction
- 2: Communication
- 3: Assessment and Feedback
- 4: In-Lab Teaching
- 5: Reflection

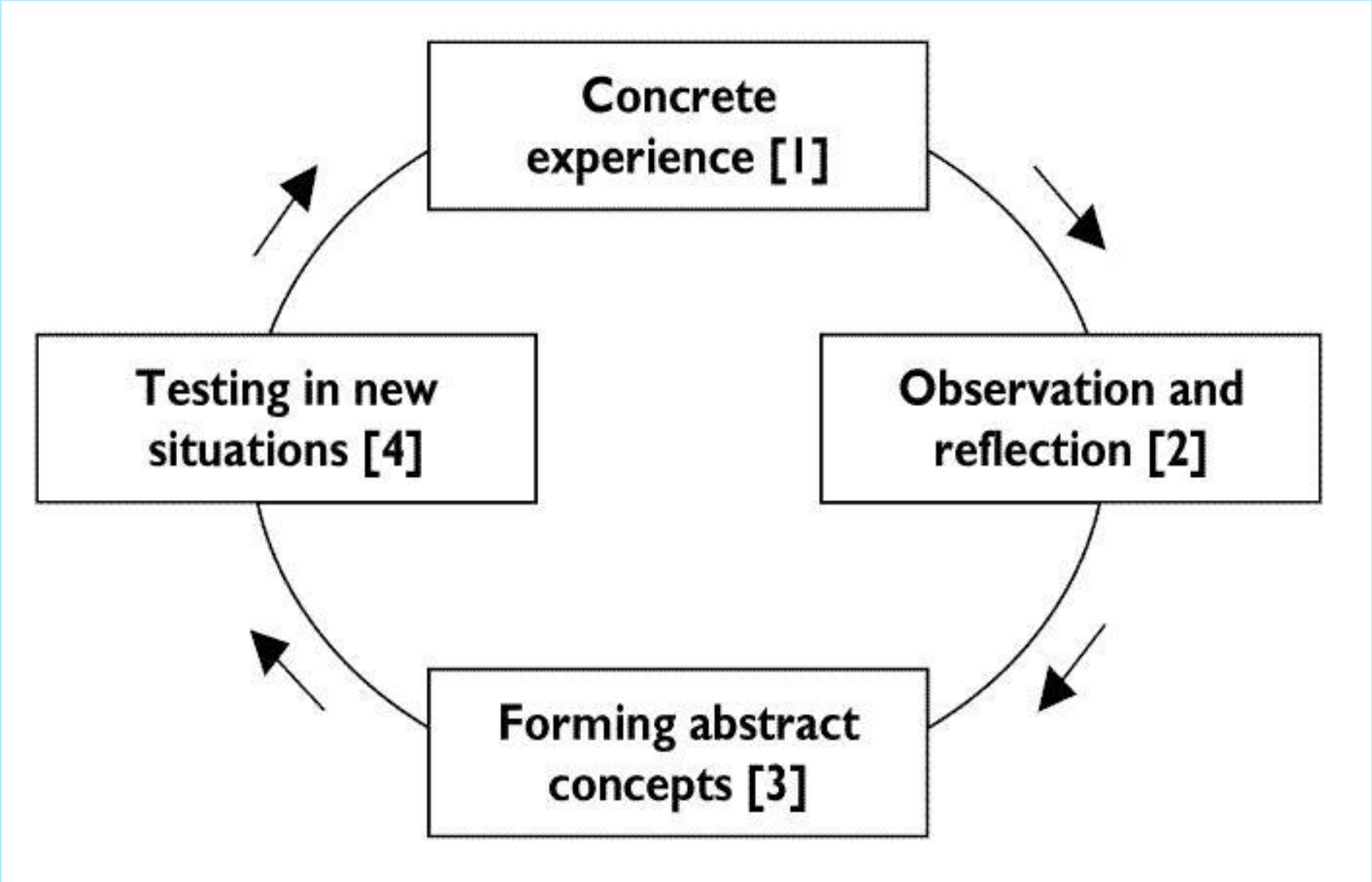
# Stage 1: Introduction

- Learning outcomes, mode of teaching, assessment, feedback -> constructive alignment
- Safety procedures (lab tour, safety quiz and scenarios)
- Course organiser meeting (learning objectives, expectations, assessment and feedback)
- Trainees assigned a personal mentor (shadowing and feedback)
- Observe a briefing

# Stage 2: Communication

- Active learning in groups
- Draw you ideal GTA (group work, establish baseline)
- Pedagogical theory informing our teaching
- SMART learning objectives linked to assessment (constructive alignment)
- Kolb learning cycle (“pick one”, inclusivity)
- Microteaching (briefing)
- Protected characteristics (diversity, inclusivity, teaching scenarios)

# Kolb Cycle


Concrete experience [1]
Observation and reflection [2]
Forming abstract concepts [3]
Testing in new situations [4]

# Stage 3: Assessment and Feedback

- How we assess and student expectations
- Consistent assessment exercise – no criteria
- Real manuscript with criteria – assess
- Table marking – agree a collective grade
- Assess new manuscript
- Constructive feedback to feedforward – positive ☺
- Give written feedback on assessed script
- Oral feedback – Roleplay – Placed on VLE for further analysis

# Stage 4: In-Lab Teaching

- Go into the lab with mentor
- Give a briefing, teach, assess (table mark – scripts double marked for consistency), feedback
- Mentor feedback
- Personal teaching portfolio

# Stage 5: Reflection

- Personal teaching portfolio – RDF
- Interview style Q+A
- STAR Answer – Blended learning
- Interview style Q+A

# Completion

- Qualified GTA – attendance, portfolio, mentor feedback
- More sessions with mentor /discussion with co-ordinator for difficulties

# Let’s put it into practice!

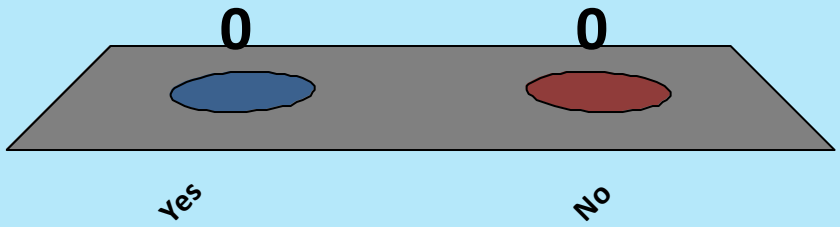
# Microteaching

- Briefing style
- 1. Make a cup of tea / coffee
- 2. Make a pizza
- 3. Mix a cocktail
- 4. Bake a cake
- Learning Objectives -> Content -> Assessment -> Feedback Mechanisms = Constructive Alignment

What skills have you just developed?

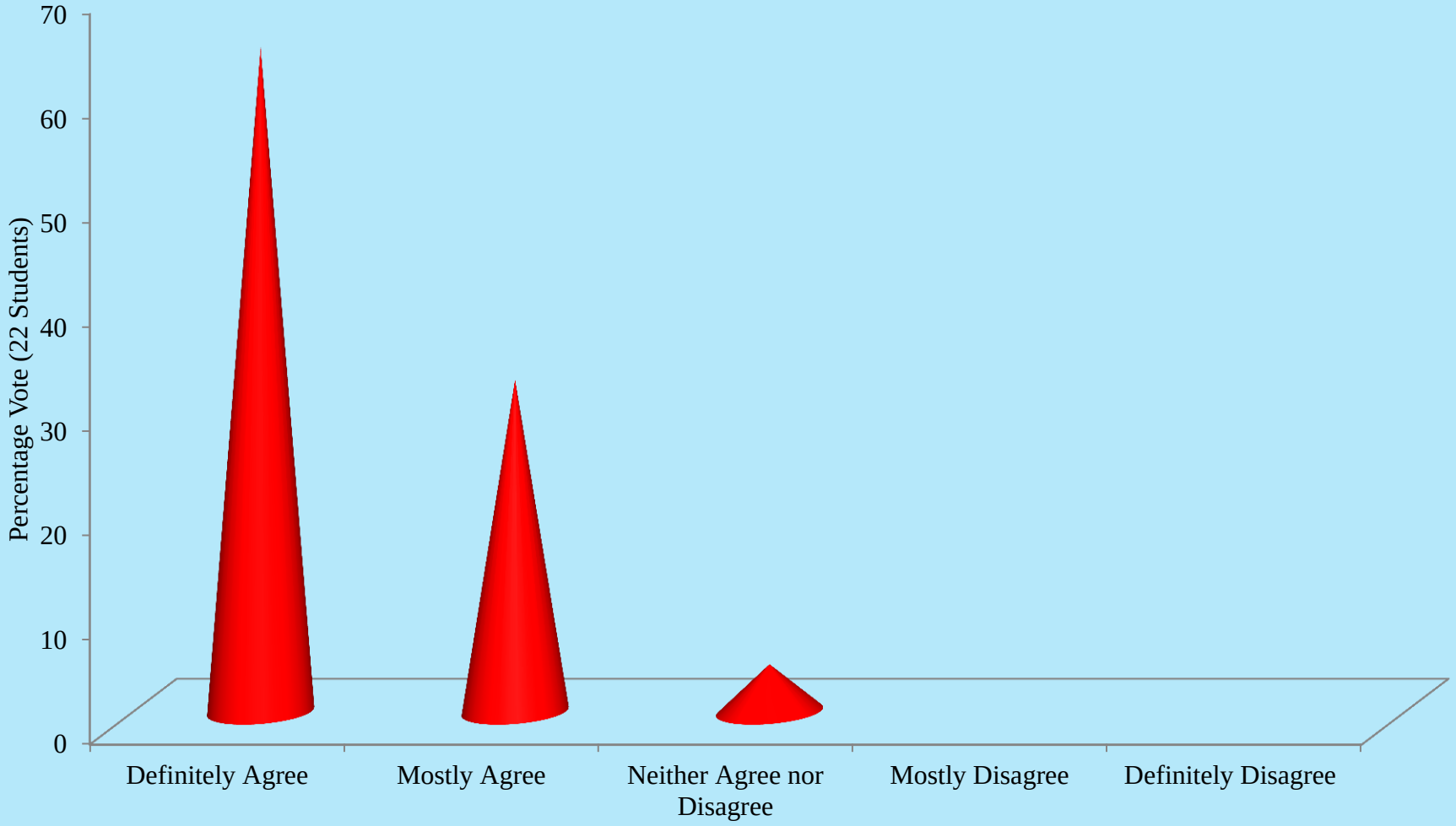
# Would you have developed those skills as much had I taught passively

A. Yes
B. No



# Student feedback

- “Made me more enthusiastic towards teaching and highlighted some skills development I would never have considered”
- “Very enjoyable and interesting. Surprised how much I enjoyed it all”




The marking and table-marking exercises (including giving feedback) in the assessment and feedback workshop were useful to help you prepare you for marking undergraduate work

# New developments

- Flip the session (to further foster group work)
- GTA awards
- Mentor training – new and existing
- Students with disabilities – in-lab assessment
- Enhance use of VLE – blended learning

# Conclusion

- A GTA training course developed with students as partners fostering active learning
- Interdisciplinary and potential for translational among departments and institutions

Thank you for listening.
Are there any questions?