



An exploration of the effectiveness of academic posters as a form of university assessment

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Motivation/ Rationale



IMPROVE ASSESSMENT IN PRE-
MASTERS COURSES



BUILD TIES ACROSS OTHER
DISCIPLINES WITHIN THE UNIVERSITY

Literature Review

- Summers (2005): “assessment in HE needs to be reliable, cost-effective, efficient, fair, useable by lecturers and useful to employers”
- Angelov (2020): shift to multi-modality in HE assessments to prevent cheating and plagiarism
- Marchante and Herrero (2022): “academic posters promote critical thinking, information retrieval and communication skills, part of participatory-reflective learning which reinforces cooperation and problem-solving”
- D’Angelos (2022): “Posters are suitable for classes of all sizes, promote collaborative learning, encourage creativity and independent thought, develop research and communication skills, and ease the grading burden on instructors”
- MacIntosh-Murray (2007): “challenging hybrid, difficult to do well. It is expected to stand alone and speak for itself”

Methodology

Interviews:

In-person/ Teams
(average length 30 mins,
range: 24-41 mins)

Sample size:

33 lecturers contacted
(SoSS, EBS, EGIS, MACS),
received 18 replies, 11
rejections (incl. Maths,
Business and Economics),
conducted 6 interviews, 1
scheduling conflict

Population:

Actuarial Sciences,
Astrophysics, Physics (2),
Chemical Engineering,
Chemistry

Analysis:

- **Qualitative:** Discourse
Analysis w emerging
themes
- **Quantitative:**
Descriptive statistics

Themes

POSTER ASSESSMENT AS ...

Academic Integrity

... a means of controlling for plagiarism/AI collusion.

Engagement

... a more engaging type of assessment.

Critical Thinking

... a more effective form of assessing the student's critical thinking skills.

Convenience

... a more convenient form of assessment (easier to mark/moderate).

Scaffolding

... a preparation for/in conjunction with other coursework.

Research skills

... a means of developing students' research skills.

Group Work

... a means of promoting group work.

Organisational Skills

... a means of developing organisational and time management skills.

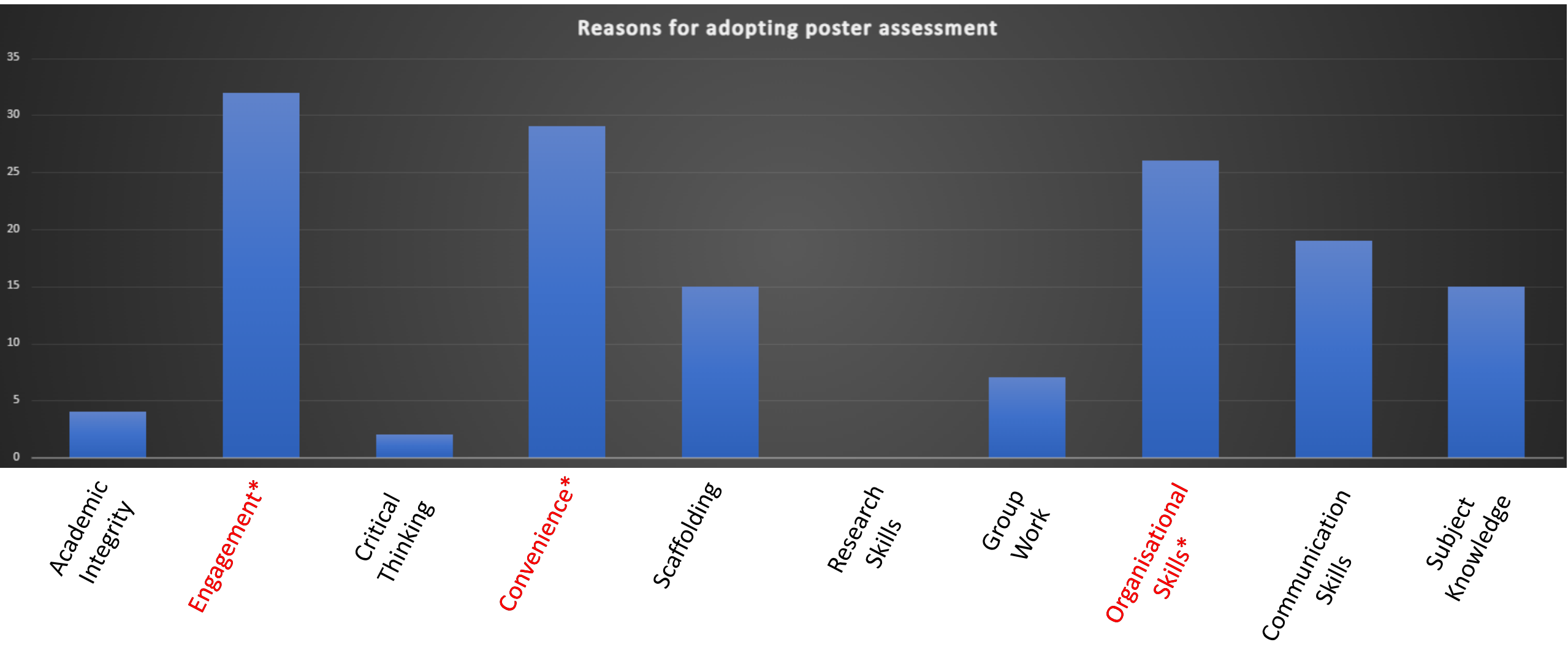
Communication Skills

... a means of testing the student's communication skills.

Subject Knowledge

... a means of testing the student's subject knowledge.

Results



...a more engaging type of assessment

" ... it was kind of like a celebratory thing, like we're done with the projects, this sort of food and everyone sort of charts and sees what everyone's achieved. And actually, most of the students actually found this, in my opinion, as far as I can tell, they found it quite positive. And certainly my students really enjoyed it because. You know, they they could show off a little bit what they have done and and talk about it and feel a little bit of pride in that work ... "

"So I would say it's pretty good overall because there's, there's the important thing about it is it has this chance of interaction, right? So rather than just being answer this question or give this presentation even I think it's good because you can if something's not clear, you can ask for clarification."

"The students do a group project based on the Engineers Without Borders. So Engineers Without Borders as an organization, have a design challenge every year. They set the geographical location of the project and what the project will be, but we use it within that course. "

...a more convenient assessment

"The most important reason for me was to make my marking easier."

"And indeed, the more structure I choose to give them, the easier something is to mark, because then the poster starts to become more and more uniform. The sections more and more similar between different students. And then it's quicker to see. This is an A grade. This is a B grade. This is a C grade."

"It doesn't feel like we're not sort of going through it with a magnifying glass, sort of checking all of the details. It's a very sort of holistic approach."

"So there's always you're assigned certain students for the presentations, but you can attend as many as you want and mark as many as you want. And there's always a sort of critical mass."

"also it has the advantage for me and for the for the demonstrators who ultimately have to do the marking, that it reduces the marking, the workload."

...a means to teach organisational skills

"They're told to produce a poster and they're told to use PowerPoint, and they're told the canvas size for the PowerPoint and they're told they can do it landscape or portrait. But apart from that, the way in which they construct it is up to them."

"Um, I mean, in the end it's their poster. So I always say this, it's up to them to do it."

"Use a template if you want, but you can do whatever else you want if you don't want to use that template like this year, all groups did not use the templates, they just designed their own and which is quite interesting. Haven't seen that before."


"They're already quite happy to do one [a poster] and they seem they seemed to enjoy their big creative freedom [in] that. Going on, not having a template and it gives them [...] an opportunity to show us something. Some skills that they have, another chance to do within the courses."

"Of course, the science needs to be there there's a bit of introduction brief, a brief introduction of when the findings and typical for poster you concentrate on what you think is essential. You don't. overburden the audience with too much information. It has to be selective, and then there's a conclusion and references."

"But the Engineers Without Borders projects are very sustainability focused, so they tend to be ...problems. So it might be sanitation or housing or some such thing...We ask them to look at the environmental impact, do a risk assessment, think of the costing of the project, the sustainability aspects and things like that...We outline what we'd like to see them cover.... They have quite a lot of choice. As I say, that the project outline. That comes from Engineers Without Borders. ...They set the location and they set the broad topics. The students have free range to pick whatever one they want"

Discussion

Reasons for choosing posters are often:

- Pragmatic – ease of marking (Summers, 2005; D'Angelos, 2022)
- Offers variety
- Student-focussed (research focus, peer-assessment)
- Builds communication skills  most are group projects
- **Academic integrity is not a concern**

Important are:

- Active Engagement (topic, group, audience) (Marchante and Herrero, 2022)
- Quality of science

Posters are seen as a 'fun' assessment variation, often tied to other assessments, with high pass rate and high levels of engagement.

References

- Angelov, D. (2020). Academic integrity and the shift to multimodal assessment. *Concurrent Sessions 12*, p.169.
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- Summers, K. (2005). Student assessment using poster presentations. *Paediatric Nursing*, 17(8), p.24.



Thank you!