UNIVERSITY OF ABERDEEN

QAA SCOTLAND

15th Annual Academic Development Symposium | Thursday 25 April 2024

Embracing Diversity: Supporting Inclusive Learning Communities

POSTERS

INTRODUCTION

This poster e-booklet showcases pedagogical research and teaching practice from across the University. The posters align with the Symposium's theme **Embracing Diversity: Supporting Inclusive Learning Communities**, and illustrate ways in which we are addressing the theme. There will be two awards this year.

The **Digital Accessibility Award** will be selected by a judging panel consisting of the five eLearning Support Assistants working within the Centre for Academic Development, who have received extensive training in digital accessibility to deliver the Course Accessibility Service.

The **Popular Vote Award** will be voted for by the Symposium delegates on the day. While judging the posters for the Popular Vote Award, you are encouraged to use the following criteria:

- Creativity, visual appeal and flair of the poster
- Legibility and clarity of the information presented
- Balance of text and diagrammatic information
- Succinctness of the information presented
- Innovative teaching and learning or research content

VOTING INSTRUCTIONS

Voting is open only to Symposium delegates (whether attending in person, online, or a mix of both). Using the guidelines above, please cast your **ONE** vote by scanning the QR code below or by following this link: **https://forms. office.com/e/zquzq6HRGy**

Voting **opens at 9:00** and **closes at 14:45 on THURSDAY 25 APRIL**. Professor Jo-Anne Murray, Vice-Principal (Education) will present the Digital Accessibility Award and the Popular Vote Award at 15:45-16:00.
YOUR VOTE WILL BE ANONYMOUS.

POSTERS

Can AI tools be used to support academic writing?

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Background

The rapid development of generative AI such as ChatGPT has sparked concerns around academic integrity and necessitated changes in how we deliver assessments. However, it also presents opportunities to enhance learning. We argue that as AI is easily accessible and here to stay, we should encourage its responsible use to improve the AI literacy of our students, especially given student concerns about their use. Here, we share our experiences of trialling the use of AI to support academic writing on BI2OB2 Physiology of Human Cells, a compulsory 2nd year undergraduate medical sciences course with ~220 students.

Methods

We used ChatGPT to generate academic writing samples for both an online academic writing lesson on the Lt platform and a face-to-face (F2F) lab write-up tutorial. Students were asked to critique these samples. Responses were gathered through Lt and a Microsoft Form. Following a discussion around responsible use and limitations, students were then permitted to use AI tools to assist with their group lab reports.
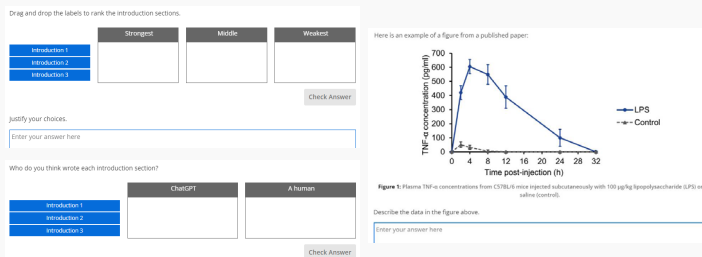
Figure 1: Screenshots from the Lt academic writing lesson.

Results

In both the Lt lesson and F2F tutorial, the majority of students correctly identified which writing samples were AI-generated and rated these of lower quality than those written by an academic (Fig. 2). While only 3.7% (5/135) of lab report submissions acknowledged the use of AI, all groups reported it was helpful. Most reported using ChatGPT to improve their grammar.

A [academic] is more concise and B [AI] isn't very natural.

B [AI] is too long, has unnecessary information

Intro A [academic] was concise and explained the aims of the report.

Introduction B [AI] was wordy and irrelevant.
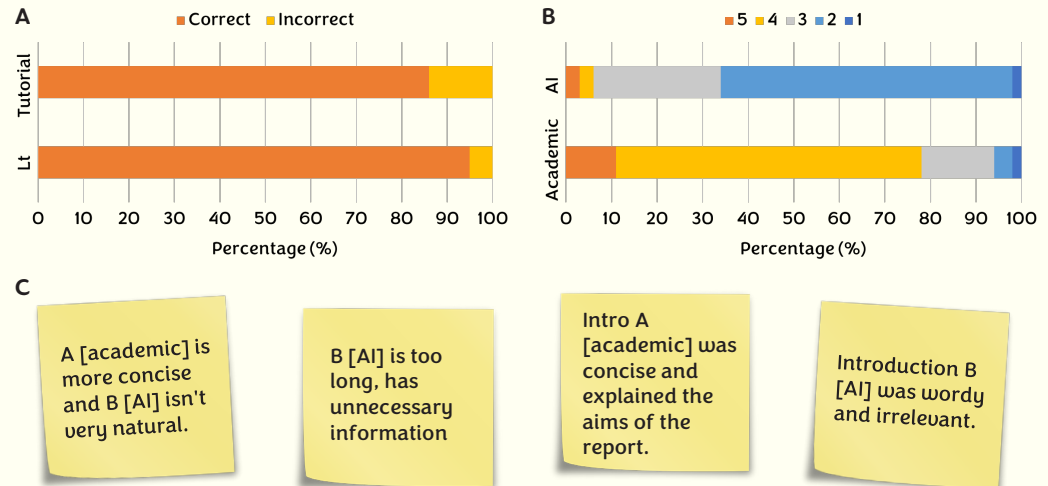
Figure 2: Percentage of students who correctly identified AI-generated writing (A). How students scored the sample introductions in the F2F tutorial, where 5 = strongest (B). Example comments on the example introductions (C).

Conclusions

These exercises were useful for highlighting the limitations of generative AI and facilitated discussion around responsible use
The use of ChatGPT saved staff time in generating writing samples

Can you tell the difference? Take the short quiz.

Empowering Change: Transformative Education and Leadership at the Asian University for Women

Antara Iqbal, Asian University for Women, antara.iqbal@auw.edu.bd
John Storm, University of Aberdeen Business School, john.storm@abdn.ac.uk

- Theme 1 -
New School Initiative

The HSBC-AUW School of Apparel was founded in 2023 to offer a Masters in Apparel & Retail Management. The first university to introduce such a programme in Bangladesh.

- Theme 2 -
Empowering Women

- Addressing female participation in tertiary education (currently under 30% nationally and significantly lower in the garment manufacturing sector)
- Providing educational opportunities to aspiring women in low-income households and ensure high standards of quality assurance.
- Fulfilling targets associated with United Nations Sustainability Goal (UNSDG) 4 of achieving gender parity regarding access to education

- Theme 3 -
Transferable Skills

- 10 credit courses and 16 intensive modules taught. Applicable to any business setup or managerial capacity.
- 2-months internship arranged to enhance employment opportunity upon graduation.
- Competitive knowledge and skill set to support vertical career progression.

Research Objective

- Introduce the HSBC-AUW School for Apparel and Retail Management.
- Understand women workers context in Bangladesh's Ready Made Garment (RMG) sector
- Explore stakeholder perspectives regarding new HSBC-AUW school initiative
- Highlight project achievements, and draw out key learnings and takeaways when launching a new school initiative in a developing country context

Background Context

Inaugurated in January 2023, the HSBC-AUW School of Apparel seeks to extend the Asian University for Women's (AUW) mandate of offering women's empowerment and leadership education. In that accord, the school started out with offering the Master in Apparel & Retail Management programme in August 2023. Comprising 26 courses, the programme draws faculty from 12 international universities and 8 firms to provide a first-of-its-kind educational opportunity to women in Bangladesh's apparel sector.

WOMEN IN BANGLADESH'S RMG SECTOR

FEMALE PARTICIPATION
19.35 LAKH women

FAMILY HELPER 222 0.01%
OWNER/DIRECTOR/PARTNER 1,162 0.06%
DAILY BASIS/TEMPORARY WORKERS 6,998 0.36%
ADMINISTRATIVE & MANAGERIAL 15,269 0.79%
CLERICAL & SALES WORKERS 17,034 0.88%
PRODUCTION & RELATED WORKERS 1,894,246 97.90%

GENDER COMPOSITION OF EMPLOYMENT CATEGORY
NO OF PERSONS ASSOCIATED ■ MALE ■ FEMALE
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Category	Male	Female
OWNER/DIRECTOR/PARTNER	12,500	1,162
ADMINISTRATIVE & MANAGERIAL	116,023	15,269
CLERICAL & SALES WORKERS	46,108	17,034
FAMILY HELPER	423	222
DAILY BASIS/TEMPORARY WORKERS	12,924	6,998
PRODUCTION & RELATED WORKERS	1,134,661	1,894,246

7,727 RMG establishments | 32,57,570 people associated in total
59.4% OF RMG WORKERS WERE WOMEN
Image source: SMI (2019) 1

Although women account for most of the garment manufacturing workforce, female roles in the workplace are negatively skewed towards menial task. Progression opportunities are constrained by a myriad of factors, including lack of representation (Huq, 2019)[2], fear of harassment or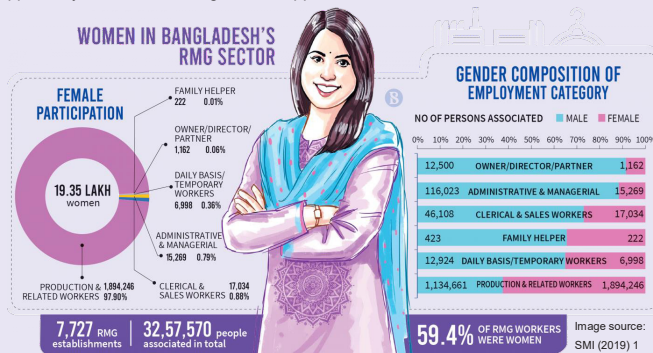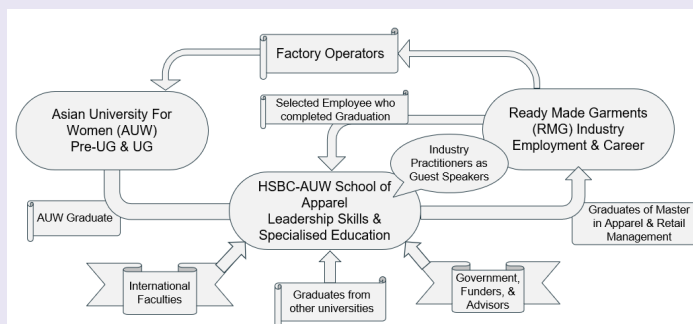 violence (Akhter et al, 2019)[3], lack of education (Akhter et al, 2019; Haque et al, 2020)[4], lack of familiarity of their rights (Haque et al, 2020; Islam et al, 2022)[5], as well as wider social pressures and expectation on the role of a woman (Fatema, 2019; Macchiavello et al, 2020)[6].

The study raises practical takeaways for decision-makers and leadership teams involved in education for social impact initiatives within a developmental country context.

1. SMI (2019) cited in The Business Standard (2022) Story of country's first female manager in RMG. March, 08.
2. Huq, C. (2019). Women's Empowerment in the Bangladesh Garment Industry through Labor Organizing. *Wagadu: A Journal of Transnational Women's and Gender Studies*, 29, 130-154.
3. Akhter, S., Rutherford, S., & Chu, C. (2019). Sufferings in silence: Violence against female workers in the ready-made garment industry in Bangladesh: A qualitative exploration. *Women's Health*, 15, 1745506519891302.
4. Huq, C. (2019). Women's Empowerment in the Bangladesh Garment Industry through Labor Organizing. *Wagadu: A Journal of Transnational Women's and Gender Studies*, 29, 130-154.
5. Islam, M. A., Abbott, P., Haque, S., Gooch, F., & Akhter, S. (2022). The impact of Covid-19 on women workers in the Bangladesh garment industry. *London: University of Aberdeen & Modern Slavery and Human Rights Policy and Evidence Centre*.
6. Fatema, N. (2019). Women empowerment or gender equality: which one should come first for augmenting satisfaction and performance of female employees: a study on the ready-made garment sector of Bangladesh. *International Journal of Business and Social Research*, 9(1), 08-21.
7. Asian-university.org. (2023) HSBC-AUW School of Apparel. Figure 1: Khatun, F & Hossain, R. (2022, March 8th). Women need support to fill top chairs in RMG sector. *The Business Standard*. https://www.tbsnews.net/women-empowerment/women-need-support-fill-top-chairs-rmg-sector-381457

Perspectives and Interests of Key Stakeholders

Government Bodies
- Contribute towards achievement of UNSDG Goal 4: *"Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"*[1]
- Contribute towards national target of increasing participation of women in the RMB sectors' managerial levels by 30%

RMG Industry Leaders
- Demonstrate compliance and best practice with UNSDGs, buyer compliance requirements and Government regulations
- Possibility of employing skilled management from the local job market rather than hiring expats with higher cost
- Opportunity to motivate and upskill the current workforce

The Asian University for Women
- Accomplish the mission of offering women's empowerment and leadership education to provide *"a path for women from underserved communities to break cycles of adversity and oppression"*[6]
- Deliver high impact initiative with tangible output, enhance fund raising, and create more opportunities for women in underserved communities

Students
- Develop career within a prominent industry in Bangladesh
- Scholarship opportunities, learning transferable skills, as well as gaining exposure to industry experiences and networking
- Recover from adversity and oppression and move towards a better future

International Faculty & Advisors
- An opportunity to channel personal skills, competences, network and influence towards supporting meaningful initiatives
- An arena to fulfil an underlying desire to support unifying principles of empowering women

Stakeholder Map Illustrating A Circular Economy

Factory Operators
Asian University For Women (AUW) Pre-UG & UG
Selected Employee who completed Graduation
Ready Made Garments (RMG) Industry Employment & Career
Industry Practitioners as Guest Speakers
HSBC-AUW School of Apparel Leadership Skills & Specialised Education
AUW Graduate
Graduates of Master in Apparel & Retail Management
International Faculties
Graduates from other universities
Government, Funders, & Advisors

Project Achievements

- 18 women being skilled and trained for leadership positions in the RMG industry [ongoing]
- All students have secured a 2 months internship with reputable RMG companies
- 5 companies providing internships have confirmed plans to provide full-time employment and support career
- Frequent strengthening of network through site visits and welcoming industry practitioner as guest speakers to AUW creates meaningful inspiration to other women workers in RMG companies that the cycle of adversity and oppression can be broken
- The programme has successfully interviewed and selected 14 students for the Sep 2024 batch of students

Key Learnings and Takeaways

- Aligning with national priorities to address societal needs such as improving employability, increasing female participation in tertiary education, and promoting industry-university linkages, increases levels of support from Governmental departments.
- Ensuring that Advisory Boards balance influence with independent decision-making helps avoid unintended consequences and mitigates against risks associated with unfamiliarity of local / internal systems.
- Necessitating careful consideration of shared values and power dynamics helps ensure effective collaboration within cross-cultural teams, also reducing conflict during implementation due to diverse perspectives.
- Balancing stakeholder interests during curriculum design can be challenging within non-profit setting where funding is dependent upon external entities with varying interests and priorities.
- Ensuring programme relevance and graduate employability requires regular consultation with garment manufacturers and integration of employer feedback into programme operations.
- The literature base generally assumes availability of well-established processes, systems, and infrastructure when discussing educational leadership, which cannot be guaranteed within a developmental context.
- Balancing the multiple perspectives, needs, interests and influences of various partners and stakeholders during start-up and implementation phases of a new program at a new school is both a key responsibility and challenge for leadership.

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Embracing Diversity With BuddyCheck and MyAberdeen:
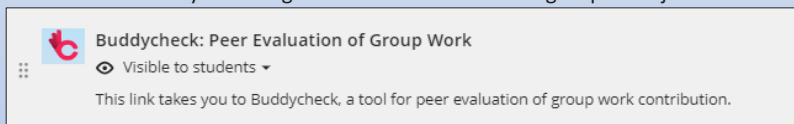# Enhancing Student Engagement, Collaboration, and Building Accessible Learning Environments

Craig Stewart, Centre for Academic Development (*craig.stewart@abdn.ac.uk*)

1. Why use peer assessment?

The assessment of group work can be challenging and complex. One of the main challenges with group work is how to distinguish the individual contributions within group, which has consequences for the validity and fairness of the assessment. An effective approach to this involves incorporating peer evaluation into the assessment process. This involves students in a group assessing the contribution of their peers to the group work, which can then be used to provide individual grades for the group work.

2. What is BuddyCheck?

o BuddyCheck is a peer evaluation tool available for deployment in MyAberdeen courses through the "Books and Tools" menu or when adding tools via the course content.

o BuddyCheck enables students to evaluate the contribution of their peers to groupwork, which is essential if they are to feel confident that their contributions are graded fairly.

o In large classes, BuddyCheck makes this whole process quick and easy, avoiding the use of other mechanisms for gathering such peer evaluation and then working out on an Excel spreadsheet whether and in which way will the grades of individuals in the group be adjusted.

Buddycheck: Peer Evaluation of Group Work
👁 Visible to students ▾
This link takes you to Buddycheck, a tool for peer evaluation of group work contribution.

3. What do staff think of BuddyCheck?

A small number of courses are already making use of BuddyCheck to run authentic group/teamwork exercises with their students. In discussion with the course co-ordinators using BuddyCheck the following themes were revealed:

✓ Setting the scene, making learning outcomes clear and highlighting the rationale and benefits of working in a group and how BuddyCheck can help evaluate peer contributions is helpful.

✓ BuddyCheck can enable students to provide written/qualitative feedback which can help assessors understand why students have evaluated their peers in particular ways.

✓ Mid-point evaluations and encouraging students to complete mutually agreed groupwork contracts were suggested methods to help establish expectations, maintain accountability and ensure potential problems are addressed before the groupwork project concludes.

Roberts and McInnerney[1] identify some potential problems of groupwork, along with possible ways these can be overcome for a positive group learning experience. However, BuddyCheck can help address the following potential issues:

Using BuddyCheck to Address the Challenges of Peer-Reviewed Groupwork	
"student antipathy towards group work"	Justify groupwork and set clear expectations. Use formative work to allow familiarization with the process.
"a lack of essential group-work skills"	If skills are clearly communicated, they can be developed and critically appraised using feedback tools.
"the free-rider"	BuddyCheck can help add accountability and a method of providing feedback to peers.
"possible inequalities of student abilities"	BuddyCheck provides methods of accounting for any concerns regarding grades, assuaging student anxiety.
"the withdrawal of group members"	As well as providing practical experience of groupwork, assessors can consider this when weighting results.
"the assessment of individuals within the groups"	Individual grades can be adjusted and applied to coursework based on peer-review scores. Individuals can also receive written feedback from their peers.

4. Limitations of BuddyCheck

o BuddyCheck does not assist with the formulation of groups, so staff still need to consider how groups are comprised.

o Staff must remember to deploy the evaluations in the course content using the (+) icon.

o Some elements of the work-flow can be currently counter-intuitive, such as grades being released upon the addition of the peer-reviewed element

5. Conclusion and Recommendations

BuddyCheck can be a valuable tool for helping manage groupwork and for helping students feel more connected to coursework assignments, thus increasing its accessibility. However, this tool should be used mindfully by considering group composition, clear learning outcomes and student attitudes. Formative assignments and student-centred approaches can also help focus group work.

To facilitate adoption of the tool and increase staff confidence, eLearning should consider developing further guidance on the group assessment and peer-review tools, including BuddyCheck, available for use in MyAberdeen. These could include QuickGuides, workshops or recorded guides and consideration of suggested workflows.

References:
1. Roberts T.S., and McInnerney, J.M. (2007) 'Seven Problems of Online Group Learning (and Their Solutions).' *Journal of Educational Technology & Society*, 10(4), pp. 257–68. Available at: http://www.jstor.org/stable/jeductechsoci.10.4.257. (Accessed: 26 Mar. 2024)

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Embracing Diversity with MS Teams and MyAberdeen
Megan Buchanan, Centre for Academic Development, meganbuchanan@abdn.ac.uk

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Background and Aim

MS Teams can now be integrated into courses on MyAberdeen, providing a link in the course area to a dedicated Class Team site, automatic enrolment to the Class Team for staff and students, and the option to schedule MS Teams meetings within the course on MyAberdeen.

This poster aims to show how Teams can provide a real-time online classroom environment, supporting different learning preferences and highlight the tools commonly used by staff to foster engagement and collaboration.

How do Staff use MS Teams to Facilitate Student Engagement?

- Staff found MS Teams more accessible to students taking online courses, possibly because they had used it in the workplace. Therefore, embedding the use of MS Teams within MyAberdeen provides a useful graduate attribute and skill for students.
- **Chat** – enables shyer students to share opinions and ask questions.
- **Breakout Rooms** – staff commented break-out rooms work well for student collaboration and are a useful way of getting students to talk to one another and helpful for students who feel less comfortable contributing in large groups.
- **'React' button and emojis** – staff have found these extremely worthwhile when running sessions with international students.
- **Polls** – a staff member commented that running a poll at the start of a session is useful to gauge how well-engaged students are.

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Over 120 staff using the MS Teams integration

What Challenges do Staff Face When Using MS Teams?

- Considerable time spent on technical challenges. For example, inviting only students or group of students to a meeting when using the integration is not quick or easy. This can reduce staff confidence in the integration, and students will be more receptive to tools if they sense confidence from staff (Mitchell and Wasim, 2022).
- Lower student participation in some cases. For example, difficulty getting students to participate in polls with open-ended questions and encouraging someone to speak in an online meeting is sometimes a challenge. Although all the tools to engage are easily available, staff should still make a point to encourage all students to engage in the way they would prefer. There is still the risk that it is the same students with high engagement and not others, or students not making full use of and benefitting fully from what is available (Chaka et. al., 2022).

❤️ 4   👍 1

Conclusion

MS Teams embraces diversity by enabling staff to build an inclusive learning environment with a variety of learning materials and learning activities, thus accommodating different learning preferences. However, technical challenges and low student participation can be a barrier to this.

If you have any questions about MS Teams integration or would like to make use of it, please contact elearning@abdn.ac.uk. Use the QR code below to view our Quick Guide.

References

Tan, C., Casanova, D.,Huet, I.,Alhammad, M. (2022) Online Collaborative Learning Using Microsoft Teams in Higher Education Amid COVID-19. International Journal of Mobile and Blended Learning , 14 (1) , Article 76. 10.4018/ijmbl.297976.

Chaka, C., Nkhobo, T., Lephalala, M. (2022). Leveraging Student Engagement through MS Teams at an Open and Distance E-learning Institution, Journal of Education and e-Learning Research 9(3):136-146 DOI:10.20448/jeelr.v9i3.4102

Mitchell, K., Wasim, M.A. (2022). Investigation of Higher Education Teacher Adoption of Microsoft Teams: Managing Behaviour through Online Delivery and Promoting Positive Usage. In: Bilgin, M.H., Danis, H., Demir, E., Bodolica, V. (eds) Eurasian Business and Economics Perspectives. Eurasian Studies in Business and Economics, vol 23. Springer, Cham. https://doi.org/10.1007/978-3-031-14395-3_3.

Supporting international PGT students to overcome language barriers

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Background
- Language barriers present both an academic difficulty (e.g., Biggs, 2001) and a mental health issue (e.g., Hamamura & Laird, 2014) for English as an Additional Language (EAL) taught postgraduate (PGT) students
- This ongoing project examines the nature of language barriers experienced by PGT EAL students at the Universities of Aberdeen and Glasgow

Methodology
- **Phase 1:** Thematic analysis of focus groups (two at UoA and four at UoG, 28 participants in total) guided by a semi-structured interview schedule focused on PGT EAL students' perceptions of language barriers
- **Phase 2:** Questionnaire study of 39 PGT EAL students at UoA. Combines quantitative questions on use and knowledge of language support services and open-ended questions on reason for use of language support

Language barriers perceived by our EAL students
Range of language barriers reported, including:
- Specialist vocabulary
  - e.g.,*"[you need to know] a huge number of professional words and I can't understand it"*
- Lack of emphasis on spoken and listening skills in their English training
  - E.g.,*"[in home country] university entrance exams … don't need student listening and speaking, so most students repeat the day by day just reading"*
- Cultural and contextual differences
  - e.g.,*"our classmates are from a different culture … so I think it's made me lost the chance to communicate with them"*
- A greater emphasis on critical thinking in the UK
  - e.g.,*"British writings, like, it's about critical thinking and I don't know what critical thinking is"*

Access to language support
Across studies, students who used the Language Centre, study skills workshops and 1-2-1 sessions found them to be beneficial
- e.g.,77% who used the Language Centre reported that it improved their experience at UoA

In focus group and questionnaires, barriers to accessing language support included lack of time due to workload, and lack of awareness
- 31% of students in the questionnaire study were unaware of Language Centre resources
- 24% of students said that lack of time prevented them from accessing language support
- 10% reported that uncertainty around the effectiveness of our language support prevented them from accessing it

Simple logistics also seem to present a barrier
- e.g.,*"I need to make an appointment. I think it's a little troublesome to arrange my time"*

Student suggestions for further support
Spoken skills and were mentioned most frequently, with an emphasis on opportunities for discussion

In focus groups, participants emphasised spoken language skills more than academic writing skills
- e.g.,*"English corner is a better idea … gather some English speaking people to get together every week"*
- e.g.*"a social society … a society like English speaking society"*

In the questionnaire, suggestions for additional support included
- Academic recap sessions
- Group discussions focused on academic topics to practice academic English

Translation Software
Unexpected theme in focus groups
- Students reported routine use to read articles, write essays and understand lectures
- Perceived as useful tool and accepted part of studying in the UK
  - *"I think most students should need translator"*
  - *"Translator is the greatest invention that I use"*
Backed up by questionnaire study
- 43% used translation software to aid writing
- 52% reported at least some use to translate assignments
- 55% reported at least some use to translate lectures and academic materials
- Software mentioned includes DeepL, Youdao, Papago and Google Translate

Conclusions and further work
- Help with specialist vocabulary at a subject-level would be beneficial for EAL students
- Simple logistical issues can prevent EAL students accessing effective support
- EAL students are keen for more spoken language support, especially spoken language skills
- We intend to further study the use of translation software and its impact on academic writing
- We believe the development of institutional guidelines for the use of translation software should be explored

Copyright Heights

Creating an inclusive copyright literacy game

Tim Riley, Digital & Information Services, timothy.riley@abdn.ac.uk

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Drew (they/them) Ali (she/her) The Librarian Professor Khatoon Chris (she/her) Billy (he/him)

Copyright literacy is 'the appropriate knowledge, skills and behaviours to enable the ethical creation and use of copyright material'[1].

Background

Q. Copyright can be daunting[2]. How can we make copyright literacy resources appealing and accessible to diverse learners?

A? Computer games can improve learning outcomes[3], creating safe spaces for 'making mistakes, experimenting and exploring'[4].

The game

We developed an inclusive and accessible 'visual novel' game using PowerPoint.

The player explores the fictional 'Copyright Heights University' campus, meeting different characters and finding clues to solve a copyright mystery.

Inclusivity

✓ Characters with diverse ethnicities, genders, ages, body types

✓ Conversational and plain language

✓ Cheerful graphics, music, and humour to engage learners and reduce anxiety

✓ Accessible fonts, diverse navigation options, screen reader compatibility, alt text descriptions

✓ Accessible to non-university members

✓ Openly licenced for sharing and reuse

Outcome

Copyright can be fun! Game feedback from other UK copyright literacy practitioners has been highly positive. Other institutions are reusing the game.

Try it and share with your students: http://tinyurl.com/2s498392.

Send your feedback: library@abdn.ac.uk.

Play the game >

References

1. Secker, J. & Morrison, C. (2016) *Copyright and e-learning : a guide for practitioners.* Second edition. London: Facet Publishing.
2. Wakaruk, A. et al. (2021) Introducing the Copyright Anxiety Scale. *Journal of copyright in education and librarianship.* 5(1).
3. Boyle, E. A. et al. (2016) An update to the systematic literature review of empirical evidence of the impacts and outcomes of computer games and serious games. *Computers and education.* 94, 178–192.
4. Nørgård, R. T. et al. (2017) Playful learning in higher education: developing a signature pedagogy. *International journal of play.* 6(3), 272–282.

Enhancing the experience and inclusivity of student assistants

Hutchison, J. [1], Mynott, J. [2], Gillespie, K., Hendry, F. [2], Kifasi, A., Poobalan, A. [3], Tucker, S. [3] & Wilson-Scott, J. [4]

[1] School of Psychology, [2] School of Education, [3] SMMSN, [4] Centre for Academic Development

BACKGROUND

- Assistantships are important for developing graduate employability skills and should have clear learning outcomes
- Successful assistantships require transparency and trust between university and student (Patrick et al., 2008)

OBJECTIVES

- Explore how research assistants are used within projects
- Understand research assistants' perception of their experience
- How the student assistant experience may be enhanced in future

METHODS

grounded analysis approach

↓

semi-structured interviews with previous student assistants/ research leads

↓

thematic analysis of transcripts

↓

Identification of key themes

↓

translation of themes into suggestions/ guidance

EARLY OBSERVATIONS

One thing I hope to happen… they will include me [in acknowledgements]

The researchers I was working with were really supportive…

This was probably the best part of my learning out of the whole of uni, to be honest…

There is a need to consider:
- Support throughout projects (informal and formal)
- Credit and how this will be distributed
- Benefits of assistantships to individuals and their employability
- Different types of roles and assistantships

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Assessing the potential of escape rooms in medical education

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Background

- Escape rooms involve participants completing puzzles to escape a room. Most research assesses if escape rooms could *reinforce* studied material in medicine.
- Aim: Investigate if escape rooms could teach new content in medicine.
- Climate change is an important and relevant topic in medicine, yet it isn't an integral part of the curriculum. This makes it an ideal theme to assess if this learning pedagogy could teach new topics in medicine.
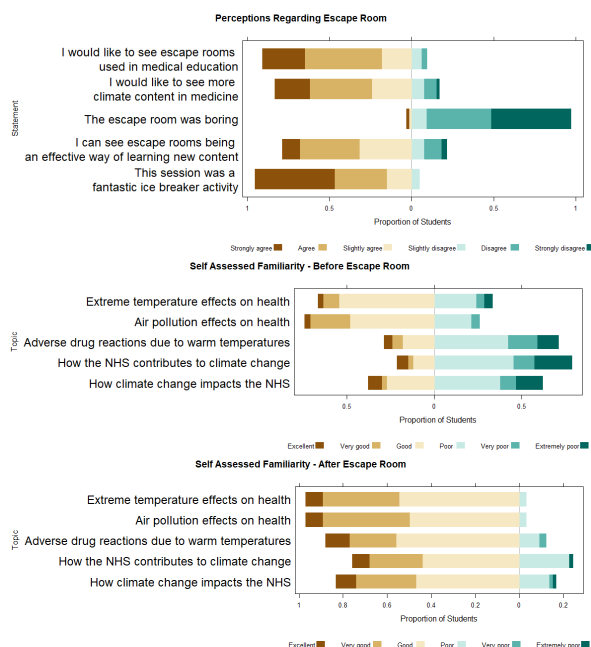
The Escape Room

- Conducted during the induction day of the incoming medical students. 3 rooms, each containing 50+ students were facilitated by a volunteer team of staff and senior medical students. Students participated in groups of 5-7 people; participants had to work together to solve puzzles to escape before time ran out.
- The activity was **inclusive**: Students accessed the escape room on their own device by either scanning a QR code or by entering a short URL. As the escape room was hosted on a website, it offers **flexibility** to the students to further engage in the content during their own time at their own pace.
- The varied puzzle types challenged students to discuss their unique individual ways of solving problems, which allowed them to **appreciate the wide diversity of different ideas** and **cultivate ideas** of their own.
- As the various puzzles was built on the H5P framework, the escape room offered **accessibility** to all users as it is compatible with assistive technologies, offering textual description of images and providing text to speech instructions.
- Scan the QR code to watch a sped-up video of the escape room (3m)

Methods

- Conducted a scoping review to find out the relationship between climate change and human health
- Developed learning outcomes and designed various types of puzzles. WordPress was used to host the website and H5P was used as the framework for the question types.
- Created a post-activity survey and analysed 66 responses.

Results

N=66. The results showed that students were able to learn new material from the escape room.

Perceptions Regarding Escape Room

Self Assessed Familiarity - Before Escape Room

Self Assessed Familiarity - After Escape Room

Student Comments

"It was a lot better than I anticipated and it worked well as an icebreaker. I think online was a good platform for it. Overall I was impressed."

"Worked with new people, learned new facts about the effects of climate change"

"Fun, interactive, ice breaker with good teamwork aspects"

"A good icebreaker and a nice way to open up the topic of climate change in health"

"Great to get to know people on the first day."

Conclusion

Escape rooms are an engaging and enjoyable pedagogical medium which can teach new content to students and further implementation in the medical curriculum should be considered.

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Reflections on a student-led careers event supported by academic and careers service staff

Eilidh Noble, Maia Ramzan, Derek Ball, Rhona Gibson and Jenny Gregory (University of Aberdeen)

Background

- Student-led careers event
  - Planned following student enquiry and discussion about preparing for a popular graduate pathway (physiotherapy)

Methods

- Students (EN & RM) initiated the event
- Surveyed classmates and decided on theme of "graduate stories":
  - Presenters graduated from relevant degree from the University of Aberdeen, now working in a directly related area (physiotherapy, sports science sports medicine)
- Speakers invited to hybrid event at University Library by staff (DB, RG & JG)

Results

7 presenters and 32 students attended, 6 online, 8 gave feedback. Figures show Likert scale responses (100% positive except for time) and free text quotes. Presenters and students remained after event for discussion.

The topics were useful
The presenters were clear
The speakers were relevant
It was at a convenient time
It was the right length
It was a good location
It was interesting
This will help me plan my future career

Legend: ■ Very ■ Somewhat ■ A little ■ Not much ■ Not at all
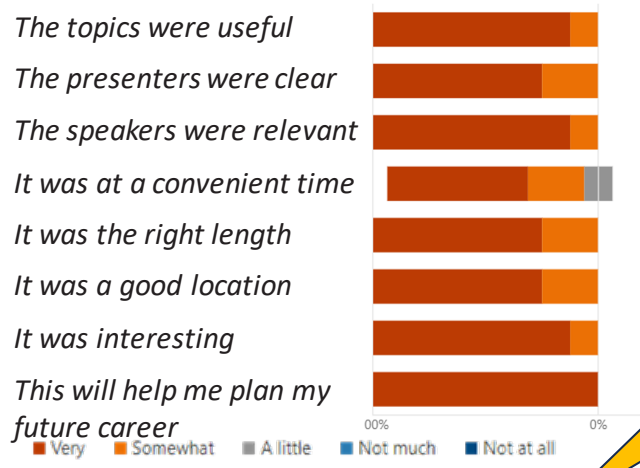
Conclusions

- Being student-led helped ensure relevance and develop an inclusive learning community around career engagement
- Event was for Sport and Exercise Science, but approach is likely to be generalisable
- Plan to repeat following feedback

Super interesting to see where people with our degrees end up. Very helpful advice for careers.

I think it would be interesting to hear from people who did a sports science degree and went on to another field such as business.

The range of speakers who have gone into different careers from sport science

Could you talk on anti-doping jobs?

Quotes from current event in gold, for future suggestions in green

Tell me your truth: Finding answers through brave spaces

Jaimee Jensen-Loving and Christopher Gray (chris.gray@abdn.ac.uk)

School of LLMVC, Department of Music

Rationale: The field of Community Music intentionally resists definition, the assertion being that no definition can describe the complexity of its possibilities: poorly constructed definitions simply create ambiguity and misunderstanding.

Imry in Camlin (2015) challenges that all Community Musicians think they Invented Community Music, such is the potential diversity of this inclusive field.

Embracing this challenge within the training of community musicians provides the opportunity for each student to discover what Community Music means to them based on their own unique experiences and perspectives.

To articulate meaning for themselves each student must have freedom to critically question themselves and others in the pursuit of their own truth. Therefore, the classroom must provide the opportunity to be inclusive of each student's experience and perspective.

Pedagogical Stance: Our stance is grounded in an understanding that teaching is not an 'affair of being told' (Dewey, 1916) but one that is based on building knowledge, constructively, with others (Watkins 2005).

We facilitate learning across all courses through a flipped classroom approach which allows us to ask questions and set challenges that bring the classroom to life in meaningful discussion and debate, where we release ourselves from the traditional 'teaching' role and embrace that we are a resource or facilitator of learning.

'I love the openness of the course; it was very much a course designed to help us make our own independent choices and opinions on how to become the best facilitator […]' Student Feedback (2023/24)

What do Brave learning communities mean to us: Safe spaces are often seen as environments where students and staff can retreat away from controversial opinions, topics and challenging perspectives at odds from their own in order to protect against disagreement and upset (Palfrey, 2017). We have reframed this to ensure that brave spaces are places these opinions, topics and perspectives can be embraced and explored with confidence, where we grow stronger through their exploration.

A **brave learning community** is inclusive of all lived experiences (including amongst others: race, sexuality, gender). Everyone in the space acknowledges that there must be discomfort due to the exploration of opinions and topics that are challenging and can be divisive. In the establishment of brave space, participants honour each other's inputs with respect to achieve a place of growth and/or understanding. (Jensen-Loving, Gray, 2022)

'I love how safe the class was, we could be vulnerable with one another, and it always felt like a safe environment to learn, there was so much respect amongst each other.' Student feedback (2023/24)

Creating a brave learning community: brave learning communities exist when both students and staff take a collective responsibility for its creation and maintenance. Importantly as staff we must commit to modelling the approaches we expect from those that participate within them. This requires us to foster a sense of curiosity and vulnerability where we are willing to be challenged whilst also engaging as learners in the space.

Tools for responsible discussion and debate: To create Brave learning communities a range of techniques are introduced to the class to use, these are followed by both students and lecturers.

- Practice 'active listening'; listen, think, respond (always listen with the intention of understanding, not responding)
- Consider WAIT: Why am I talking? Why aren't I talking?
- You have permission to speak in rough draft and/or play devil's advocate, but acknowledge that is what you are doing
- Only speak from your own experience or with fact; do not assume you have the right to share other experiences and/or positionality
- Be cautious of the statement 'in my opinion' or the response 'well it's just my opinion' consider that opinion can only start a discussion but must never end it
- Don't make assumptions, but ask honest questions
- Much of who we are and what we feel is hidden, remembering that the majority of diversity is unseen, where possible 'pass the mic'
- Focus on the issue not the person
- Confidentiality - 'What's said here, stays here. However, what has been learnt can leave with you
- Challenge or break a norm to strive for social change and justice
- Where boundaries are agreed these must be respected.
- Be empowered to hold others accountable for their inputs e.g. facts, opinions, lived experiences and/or actions

What to expect from a brave learning community:
- Increased, meaningful engagement in discussion and debate
- Acceptance that discussion does not require an answer to be meaningful
- Discussion and debate is always moving forward and never stagnant or circular
- Students are autonomous in managing the discussion and debate by holding each other accountable for inputs (facilitators remain present to safeguard the space)
- A willingness to challenge perspectives through devil's advocate to ensure a balance in all discussion and debate while progress is always made
- A willingness to be vulnerable and ask for help in articulating thoughts and opinions (through speaking in rough draft)
- The fostering of empathy through active listening and meaningful response
- Greater understanding of their own stand points and justifications for them

CAMLIN, D. A. (2015). 'This Is My Truth, Now Tell Me Yours': Emphasising dialogue within Participatory Music. *International Journal for Community Music* 8 (3), pp. 233 – 257.

PALFREY, J., (2017) *Safe Spaces, Brave Spaces: Diversity and free expression in education.* London: MIT Press.

JENSEN-LOVING, J., GRAY, C., (2022) KeyStone Conversation: The intersection of identity and pedagogy: University of Central Arkansas

WATKINS, C., (2005) *Classrooms as Learning Communities.* Oxon: Routledge

Supporting Diverse Learner Needs with Respondus LockDown Browser and MyAberdeen

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What is Respondus LockDown Browser?

Respondus LockDown Browser (RLDB) was created for students undertaking online assessments and examinations, ensuring a secure web environment where they cannot access other websites, resources or applications.

The browser is compatible with a range of assistive technologies to ensure students have optimal support for all students during assessments, providing necessary provisions for their success.

Feedback from Students

- Tests look the same in RLDB and regular browsers, providing familiarity with the software.
- Easy to use – 80% of students reported feeling 'confident' using RLDB (Beacham 2023).
- Some students became panicked during the self-install process due to requiring administrative rights and waiting for browser to download.

Why Use Respondus LockDown Browser?

- Aims to provide a secure examination environment by removing access to all digital information sources.
- Already integrated within MyAberdeen and installed on classroom PCs.
- Familiar browser that can also be adapted to individual learners' needs if they have assistive software provisions.

Feedback from Staff

- Easy to set up assessments using RLDB due to deep MyAberdeen integration.
- Some assistive technologies currently not working as expected.

References

Beacham, N. (2023). *A participant-based evaluation of Respondus: An assessment for learning approach.* Internal University of Aberdeen report. Unpublished.

eLearning Team (2023). *Quick Guide – MyAberdeen: Respondus for Staff.* Available at: https://abdn.site/respondus-staff (Accessed 3 April 2024)

Respondus. (n.d.). *Accessibility - LockDown Browser and Respondus Monitor.* Available at: https://web.respondus.com/accessibility-lockdown/ (Accessed April 3 2024)

Respondus (2019). *LockDown Browser – Respondus.* Available at: https://web.respondus.com/he/lockdownbrowser/ (Accessed April 3 2024)

Ensuring an inclusive testing environment for all

RLDB is reviewed bi-annually by the ABILITY Digital Accessibility Co. to ensure accessibility for all users. (Respondus, n.d.). Because of this, it is compatible with assistive technologies including:

- Screen readers
- Speech-to-text
- Text-to-speech software

Strengths and Further Considerations

RLDB is a user-friendly software that creates a fairer environment for online exams. Both staff and students find it easy to set up and use, although compatibility issues with certain assistive technologies have been noted. In cases where alternative software isn't an option, this could hinder the experience for users of assistive technologies.

Considering technological literacy, some students reported anxiety during setup, but this could be eased through a demonstration session. This would also allow teaching staff to become familiar with RLDB, with ongoing support available from the eLearning Team.

Evaluating Equality, Diversity and Inclusion (EDI) Characteristics of Interviewers for University of Aberdeen Medical School Admissions: A Quality Improvement Project

Thornton C[1], Logan S[1], Chung C[1], Miller S[1], Cascio M[1], Patey R[1]
[1]University of Aberdeen

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"Medical schools should consider collecting identity data from selectors so they can ensure a diverse set of people are making decisions about admissions" – Medical Schools Council[2]

Aim: Recognising a need to review EDI within medical education, the University of Aberdeen (UoA) Medical Admission's team has undertaken the following QI project-
1. Evaluate the EDI make-up of its interviewers
2. Identify gold standards through a scoping exercise
3. Benchmark our findings and make recommendations

Background: *Potential benefits of improving EDI among medical school selectors*

- Reduces unconscious bias in selection processes[3]
- Enables academic advancement and attainment[4]
- Enhances range of skills, experiences and talent
- Improves productivity and engagement
- Increases EDI among medical students → improves EDI in medical workforce:
  - Reduces health inequalities
  - Enables "culturally competent" care
  - Improves teamwork, communication and risk assessment
  - Improves patient outcomes and satisfaction[5]

Results 1a- Age

There was a wide range of ages of interviewers with a peak between 50-54 years and 63% of interviewers over the age of 40.
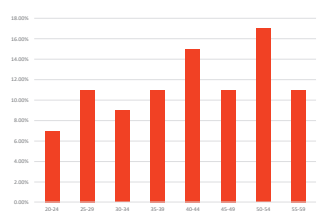

Methods

1. Survey
Interviewers in the 2023/24 admissions cycle voluntarily completed an anonymous survey on their protected characteristics

2. Scoping Exercise
A scoping exercise was undertaken to identify gold standards/guidance from medical schools

3. Benchmarking
Our results were compared with those identified in the scoping exercise and population data from the Scottish Census.

Results 1b- Gender

68%, 31% and 1% of interviewers identified as a woman, man and other, respectively.
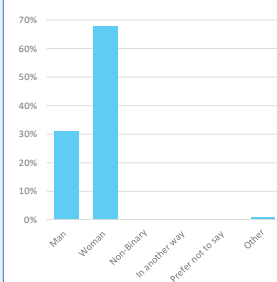
Results 1c- Ethnicity

- 8% Asian, Asian British-Indian or Indian British, Pakistani or Pakistani British
- 68% White – English, Scottish, Welsh, Northern Irish or British
- 6% from any other white background
- Each remaining ethnic group had <3% of the total interviewers. Please scan QR code for further breakdown of results.

Results 2a- Is there a GOLD standard for medical interview panels?

- University College London: **25% female**[6]
- University of Toronto – Department of Medicine: **40%** should be **female** & 1/3rd **under represented minorities**[7]

Results 2b - Aberdeen Census Data

Results of the MMI Interviewers survey compared with results from the 2011 Scottish census for Aberdeen City.[8]

|	Age				Gender		Ethnicity			
	16-24	25-44	45-59	>60	Men	Women	White British	White Other	Asian	Other Ethnic Groups
MMI Interviewers	7%	46%	39%	8%	31%	68%	68%	6%	8%	18%
Aberdeen City	16%	30%	19%	20%	49%	51%	83%	9%	4%	4%

Results 3- Findings

- The majority of our interviewers were female, White British and middle-aged
- When compared with guidance identified in the scoping exercise our results:
  - Exceed minimum standards for percentage of women on panels
  - Do not meet targets for under represented minority groups
- When compared with the local population, there are imbalances in gender but greater diversity in ethnicity
- There is very little specific guidance regarding EDI interview composition

Recommendations

- To address the findings, we suggest the following:
  1. Convene a panel of experts to determine guidance for UoA Medical School, which may include active recruitment of interviewers with specific EDI characteristics
  2. Share findings and recommendations with other Scottish Medical schools
  3. Re-evaluate the data in the 2024-25 admissions cycle
  4. Longitudinally explore whether steps to improve EDI among interviewers enhances EDI amongst medical student offers

References: 2) Medical Schools Council. Active Inclusion and Challenging Exclusion in Medical Education. Available from: https://www.medschools.ac.uk/media/2918/active-inclusion-challenging-exclusions-in-medical-education.pdf [Accessed 12/02/2024] 3) Vick AD, Baugh A, Lambert J, Vanderbilt AA, Ingram E, Garcia R, et al. Levers of change: a review of contemporary interventions to enhance diversity in medical schools in the USA 2018;9:53–61. https://doi.org/10.2147/AMEP.S147950 4) Brown C, Goss C, Sam AH. Is the awarding gap at UK medical schools influenced by ethnicity and medical school attended? A retrospective cohort study 2023;13:e073945. https://doi.org/10.1136/bmjopen-2023-073945. 5) Gomez LE, Bernet P. Diversity improves performance and outcomes 2019;111:383–92. https://doi.org/10.1016/j.jnma.2019.01.006 6) University College London. Recruitment and Selection Procedure. Available from: https://www.ucl.ac.uk/human-resources/recruitment-and-selection-procedure [Accessed 12/02/2024] 7) University of Toronto. Guidelines for Department of Medicine Search Committees Using an Equity, Diversity, and Inclusion Lens. Available from: https://deptmed.utoronto.ca/sites/default/files/assets/files/dom-faculty-recruitment-final-january-202301112.pdf [Accessed 12/02/2024] 8) Aberdeen City Council. 2011 Census Neighbourhood Statistics Aberdeen City. Available from: https://www.aberdeencity.gov.uk/sites/default/files/2018-... [Accessed 07/03/2024]
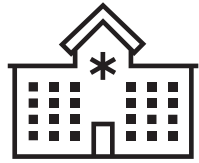
WardWelcome: Enabling Inclusive Learning Communities by Standardising Induction Information for Fifth Year Medical Students

Thornton C[1], Jain R[2], Hanna S[2], Falconer R[2], Meldrum A[2], Watson WA[2]

[1]NHS Grampian
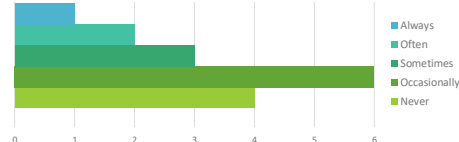[2]University of Aberdeen

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Background

- The General Medical Council requires all medical students to have induction prior to each clinical placement
- Electronic survey of current 5th year medical students at the University of Aberdeen identified significant variation in the provision of induction information
- Notably, 63% of respondents felt they were "never" provided with helpful information about the ward before starting
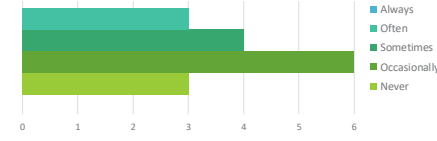

Prior to starting a new clinical placement, are you provided with the following information (Helpful information about the ward (doctors' room, toilets etc))
(Legend: Always, Often, Sometimes, Occasionally, Never)
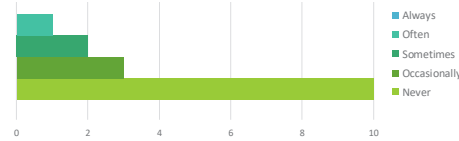
Prior to starting a new clinical placement, I feel confident I have all the information I need for my first day
(Legend: Always, Often, Sometimes, Occasionally, Never)

Prior to starting a new clinical placement, are you provided with the following information (Key staff on the ward)
(Legend: Always, Often, Sometimes, Occasionally, Never)

Prior to starting a new clinical placement, I have to find out additional information for myself
(Legend: Always, Often, Sometimes, Occasionally, Never)
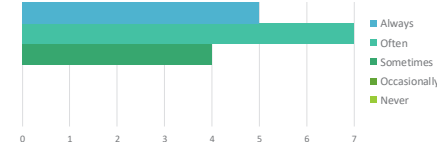
Aims

1) Improve student satisfaction
2) Reduce anxiety
3) Enable students to feel part of the team
4) Increase learning opportunities

Methods

Student focus group and electronic survey used to identify key induction information → Eye-catching, clear and easily reproducible WardWelcome template designed based on student feedback → Information collected from staff at Aberdeen Royal Infirmary (ARI) and Balfour Hospital (BH) → Information inputted into WardWelcome templates → New page created to host WardWelcome on students' VLE for easy access → WardWelcome advertised to students via email from Year Secretary

What is WardWelcome?

- Where to find the ward
- Map of key facilities including toilets, staff bases, kitchens
- Name of placement supervisor
- Key placement locations
- Uniform colours of staff members
- Members of the MDT and their skill sets

- Colour of template corresponds with colour of zone in the hospital
- Location within the hospital
- Important phone/bleep numbers
- Where to go and who to find on the first day
- Learning opportunities specific to the placement
- Criteria for successful placement completion

Pilot Study

- Currently underway for medicine placements at ARI and BH, Orkney
- Positive feedback from Senior Years' MBChB Faculty with interest to include GP, 4th year placements and other allied health professionals in future

Next Steps

- Evaluate effectiveness of pilot study in achieving project aims
- Extend to include all clinical placements during 5th year, particularly given our dispersed campus, working with our partnership Health Boards across urban and remote & rural placements
- Create hospital-based template to highlight key information about accessibility and inclusivity (e.g. disabled parking, multifaith rooms)
- Ensure information kept regularly up to date and monitor student engagement and satisfaction

Surviving Medicine: Developing Strategies To Support Students From Widening Access Backgrounds

Ellie Ferguson, Katherine Gouveia, Dr Anita Laidlaw , Dr Kim Walker, Prof Colin Lumsden, Dr Amudha Poobalan, Dr Kathrine Gibson-Smith

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Introduction

- Increasing the diversity of the medical student body, and hence the profession, remains a significant challenge facing medical educators globally (1,2)
- Research has shown lower retention rates of university students who have experienced disadvantage (3)
- There are large volumes of research on hardship and the struggles of entry to medicine, however, little about the support needs of WA students throughout the course
- This research aimed to address this evidence gap and develop a support strategy for WA students, where they are supported beyond the point of entry

Figure 1. The behavior change wheel (4)

- Green: Sources of behaviour
- Red: Intervention functions
- Grey: Policy categories

Methodology

Recruitment

All staff who taught on the MBChB and eligible WA MBChB medical students.

Workshop co-design

The research used a co-design approach involving MBChB staff, WA medical students, and educationalists in intervention conception and design.

Workshop Tasks

Participants created fictional characters based on their experiences as either WA-background students or staff members. This led to identifying intervention focus areas and generating potential ideas.

Workshop Outcome analysis

The workshops identified the support needs of students from WA backgrounds, leading to the development of intervention strategies. These were analysed using an intervention development framework (the Behavior Change Wheel) seen in Figure 1.

Results

Five groups (three staff and two student groups) developed characters across three different workshops. Groups developed characters with differing backgrounds – characters were entirely fictional and based on participants' experience as or with students from WA backgrounds.

Two intervention ideas are outlined below. These ideas were generated by workshop participants in relation to promoting a sense of belonging and connectedness – both of which were deemed high priority areas.

Intervention 1 – Adapting Regent Scheme to better support students from WA backgrounds

Intervention 2 – Developing a WA peer support network

Figure 2. Illustration of student drawn in the workshop, with participant quotes.

Conclusions

- This study set out to develop a theoretically-informed support strategy for WA students
- We undertook systematic analysis of workshop data and grounded it in a relevant intervention development framework (the Behaviour Change Wheel) seen in Figure 1
- Overall, workshop participants developed intervention ideas to promote a sense of belonging and connectedness.

References

1. Mathers J, Sitch A, Parry J. Population-based longitudinal analyses of offer likelihood in UK medical schools: 1996-2012. Medical Education. 2016;50(6).

2. Pitre T, Thomas A, Evans K, Jones A, Mountjoy M, Costa AP. The influence of income on medical school admissions in Canada: A retrospective cohort study. BMC Medical Education. 2020;20(1).

3. Milburn A. Fair access to professional careers: a progress report by the Independent Reviewer on Social Mobility and Child Poverty. London: Cabinet Office. 2012;(May).

4. Michie, S., van Stralen, M.M. & West, R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Sci 6, 42 (2011). https://doi.org/10.1186/1748-5908-6-42

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Scan for more from the University of Aberdeen Centre for Healthcare Education Research and Innovation.

Centre for Healthcare Education Research and Innovation

Acquiring transferable skills through an inclusive learning environment

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1- INTRODUCTION

- The ability to analyse and interpret data are key skills that prepare students for their future careers.
- Medical Sciences students have a final degree assessment (Data Analysis paper). Students are provided with information and figures from a research article and then asked to answer four questions: Q1 - Study aims and approaches; Q2 - Methods and calculations; Q3 - Analysis of results and Q4 - Research synthesis.
- This assessment requires students to demonstrate their acquired skills in a real-world context. However, it can be daunting without appropriate training.
- This exercise was designed to enable the development of these skills and boost students' confidence when approaching this type of task.
- The session was developed to support inclusive learning communities by i) creating a safe space where all students could feel integrated in the session regardless of their background and abilities, ii) providing a variety of ways to participate to accommodate diverse needs and preferences and iii) fostering a sense of community by encouraging group discussions and peer learning.

2- DESIGN AND STRUCTURE OF THE WORKSHOP

- Advanced Molecular Biology (MB4050), fourth year advanced Honours core course for Molecular Medical Science degree programmes; 66 students.
- Two sessions (1h and 2h) where students were introduced to an example of an exam paper.
- Q1 and Q2 were introduced during the first session and students worked on the questions in small groups or individually. The session ended with a student-led discussion of their answers.
- Q3 and Q4 were made available to students in advance of the second session. The session was manly student-led to discuss their answers.
- The sessions were a mix of anonymous polls and group discussions, and feedback on answers was provided during the session.
- Feedback from students was collected via an online questionnaire and the course SCEF form by using both Likert scales and free text comment questions.

3- RESULTS

- A total of 15 out of 45 students who attended the session completed the online questionnaire and 13/66 (19.7%) students completed the course SCEF form.
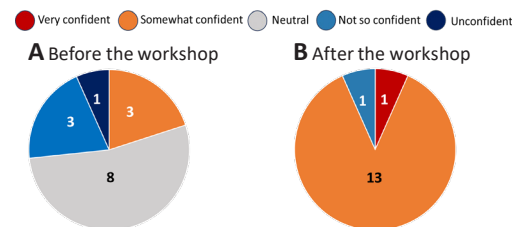
Figure 1. Pie charts showing the level of confidence of students to undertake the Data Analysis paper before **(A)** and after **(B)** the workshop
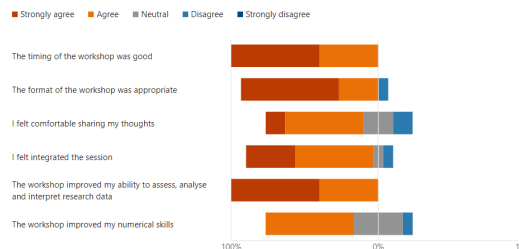
Figure 2. Summary of feedback provided on structure, student integration in the class and acquisition of transferable skills.

How effective was the workshop for learning?
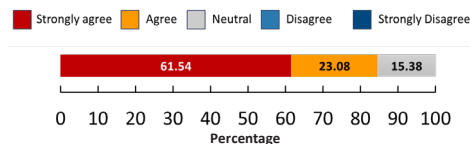
Figure 3. Likert scores from course SCEF form

What did student think?

What did you like about the workshop?

The layout and the lecturer. Virtu was well prepared and very motivated which in turn **motivated us to think about the materials.**

I thought it was a good initiative to get us prepared for this type of exam. I liked that **you could participate if you wanted to** and that you had a session where you could work through it.

I liked going through example of an example question and strategy for how to best answer the question. I also found the **student discussion** about what they would have included to be very useful.

It was **supportive** and helpful and **gave us confidence**.

I liked that we had time to think on our own and then **share our views with the others and get feedback**

What do you think could be improved?

Needed **more time to discuss with the people around** us before answer questions as that would make us more confident in our answers. Would love some more maths questions! They were really great :)

Maybe **splitting the class in groups** and have them present the figures in a journal club format

I would leave a few minutes before discussing each figure to **have the time to recollect our thoughts**

Figure 4. Free text comments from students.

4- CONCLUSIONS

- Most students found the workshop useful to improve their ability to assess, analyse and interpret data and they felt more confident about undertaking the final degree exam after the activity.
- Student feedback highlighted that the workshop was supportive, allowed participation and student discussion and overall, they found it effective for their learning.
- As highlighted by the feedback, more time for small group discussion would improve the session, and students made very valuable suggestions to enhance the format.

Optimizing Lecture Structure: Strategies for Engaging and Efficient Teaching in Engineering Courses

M. Menshykova, O. Menshykov

CELEBRATING 100 YEARS School of Engineering

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G. Gibbs

Twenty terrible reasons for lecturing

"Does it (lecturing) give students a rich and rewarding educational experience? …the answer to the question is no." [1]

The lecture has always been at the forefront of university education, partly because of organizational issues.

A series of lectures form the backbone of a course, in which the lecturer brings together disparate elements of the course and puts them into context.

Students see their course as a whole, rather than as an accumulation of unrelated activities and classes.

Peter E. Penson Lecturing: A lost art [2]

How to make lectures useful for students?

How to keep students' attention?

Structure

! Change the way information is presented every 10-15 minutes.

Interchange the theoretical information with examples of problems.

Engage the students with discussions, quizzes or polls.

Gear calculations

Gear ratio

$GR = \frac{n_{output}}{n_{input}} = \frac{d_{driving}}{d_{driven}} = \frac{N_{driving}}{N_{driven}}$

Speed ratio

$SR = \frac{n_{input}}{n_{output}} = \frac{d_{driven}}{d_{driving}} = \frac{N_{driven}}{N_{driving}}$

n rotational speed rpm
d pitch diameter
N number of teeth

Theoretical information

Quiz to stimulate discussion

The gearbox is speed reducer when
1. gear ratio is higher than 1
2. gear ratio is lower than 1

In the formula for min number of teeth on pinion m is
1. gear ratio
2. speed ratio

Worked examples

$m_{AB} = 1.5$ mm
$n_A = 3600$ rpm
$V_A = V_B = 4.52$ m/s
$V_C = V_D = 0.73$ m/s
$m_{CD} = 2.5$ mm

$N_A, N_B, N_C, N_D = ?$
$n_B, n_C, n_D = ?$
$\tau_A + \tau_B = ?$
$\tau_C + \tau_D = ?$

a) $V = \frac{\pi \cdot d \cdot n}{60}$ $V_A = \frac{\pi \cdot d_A \cdot n_A}{60}$

$d_A = \frac{V_A \cdot 60}{\pi \cdot n_A} = \frac{4.52 \cdot 60}{\pi \cdot 3600} = 0.024$ m $= 24$ mm

$d = m \, N$ $d_A = m \, N_A$ $N_A = \frac{d_A}{m}$

$N_A = \frac{24}{1.5} = 16$

Visual representation of information (PP)

! Outline the general structure of each section / topic of the presentation / lecture.

Include references to general structure on each slide of the presentation / part of the lecture.

Ensure the slides have a visually modern and up-to-date appearance, utilizing Morph transition or advanced animations. This feature facilitates the creation of smooth animations, allowing objects, images, and text to transition seamlessly across slides, enhancing clarity and relevance.

Design criteria

Failure

Bending

Calculate:
1 Bending stress number
2 Bending strength number
3 Factor of Safety in Bending

Pitting

Calculate:
1 Pitting stress number
2 Pitting strength number
3 Factor of Safety in Contact

General structure

Dynamic factor K_v

$\sigma = W^t K_i (K_v) K_s \frac{1}{bm} \frac{K_H K_B}{Y_J}$

Quality numbers Q_v:
- 3 to 7 for most commercial gears
- 8 to 12 for precision quality

Overload factor K_o

$\sigma = W^t (K_o) K_v K_s \frac{1}{bm} \frac{K_H K_B}{Y_J}$

Overload factor is intended to make allowance for all externally applied loads in excess of the nominal tangential load W^t in a particular application.

Table of Overload Factors, K_o

Driven Machine			
Power source	Uniform	Moderate shock	Heavy shock
Uniform	1.00	1.25	1.75
Light shock	1.25	1.50	2.00
Medium shock	1.50	1.75	2.25

Variations in torque from the mean value due to firing of cylinders in an internal combustion engine
Factors, established after field experience

References

Visually modern and up-to date

Gears terminology

Dedendum
Tooth Face
Tooth Flank
Face Width
the width of gear tooth measured axially, F (American), b (metric)
Tooth Thickness

Gears terminology

Dedendum
Tooth Face
Tooth Flank
Face Width
Tooth Thickness
the thickness of the gear tooth along the Pitch Circle

References
[1] Gibbs G. Twenty terrible reasons for lecturing, SCED Occasional Paper No. 8, Birmingham, 1981.
[2] Penson P. Lecturing: A lost art, Currents in Pharmacy Teaching and Learning 4, 2012, 72–76.

The inclusive Anatomy Curriculum– Antecedents and Approaches

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Background

What is Decolonisation?

"The process of undoing practices perceived to be related to colonial past. Within the educational context, confronting and challenging the colonizing practices that have influenced education in the past but which persist in educational practice today"[1]

Frequently used synonymously with increasing representation of colour and race. Through increasing images of people of colour in teaching and assessment, diversifying reading lists.

Can lead it to be misinterpreted as a process of deleting knowledges and histories. Therefore, the term "The Inclusive Anatomy Curriculum" may be better received.

Decolonisation → The Inclusive Anatomy Curriculum

Methods

- A literature review was used to comprehensively collate the relevant published studies.
- Following the identification of studies, the critical reflection methodology was applied. This framework enables one to appreciate the important believes underpinning the situation, and therefore to propose novel suggestions which better in keeping with societal values [2]

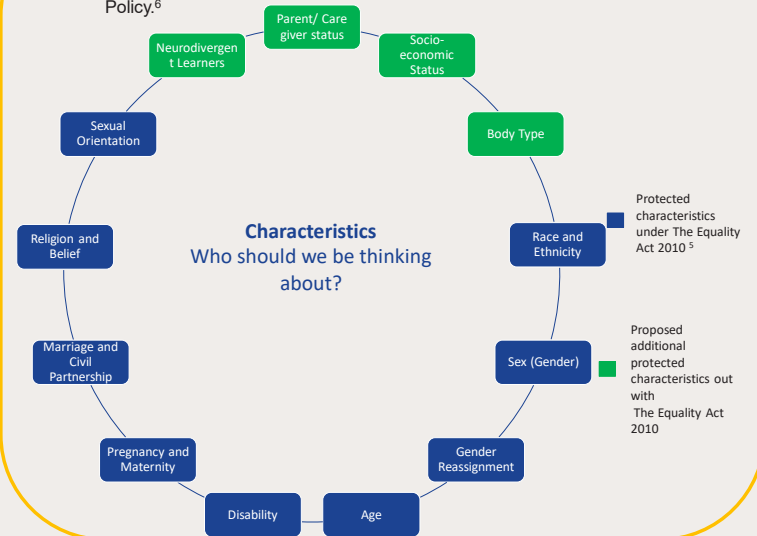## The Two-Step Approach to Achieve The Inclusive Anatomy Curriculum

1. Addressing and acknowledging the colonial past (antecedents) in Anatomy. Question the colonial narratives and distance from past imperialistic practices [3]

2. Ensure we reposition the curriculum to "*situate histories and knowledge*"[4] not solely representing the white, Eurocentric, cisgender, heterosexual able man – inclusive approach.

How do we achieve this?

→ Focus on the three main domains of the curriculum

- Learning Outcomes
- Domains
- Teaching Methods and Materials
- Assessments
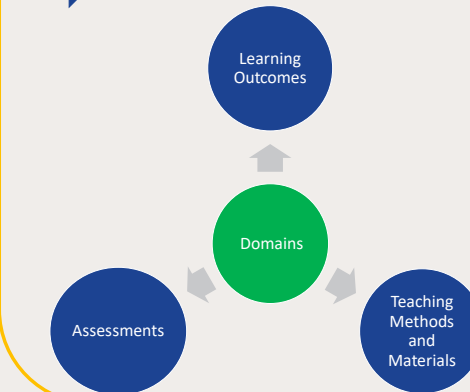
Quality impact assessment to be completed for each individual characteristic. The proposed attributes were synthesised following on from The Equality Act (2010) [5] and The University of Aberdeen Equality, Diversity, and Inclusion Policy.[6]

Characteristics
Who should we be thinking about?

- Parent/ Care giver status
- Neurodivergent Learners
- Socio-economic Status
- Sexual Orientation
- Body Type
- Religion and Belief
- Race and Ethnicity
- Marriage and Civil Partnership
- Sex (Gender)
- Pregnancy and Maternity
- Gender Reassignment
- Disability
- Age

■ Protected characteristics under The Equality Act 2010 [5]

■ Proposed additional protected characteristics out with The Equality Act 2010

Conclusions

- A clear understanding of what decolonising means is essential.
- Acknowledging the role of colonial history and practices on the discipline of Anatomy
- Comprehensive approach, looking at all aspects of the curriculum – an Inclusive Anatomy Curriculum approach

References

1. Finn GM, Danquah A, Matthan J. Colonization, cadavers, and color: Considering decolonization of anatomy curricula. The Anatomical Record. 2022 Jan 5;305(4):938–51.
2. Higgs J, Titchen A, Horsfall D, Bridges D. Creative Spaces for Qualitative Researching. Rotterdam Sensepublishers; 2011.
3. Lokugamage AU, Ahillan T, Pathberiya SDC. Decolonising ideas of healing in medical education. Journal of Medical Ethics. 2020 Feb 6;46(4):265–72.
4. GOV.UK. Equality Act 2010 [Internet]. Legislation.gov.uk. GOV.UK; 2010. Available from: https://www.legislation.gov.uk/ukpga/2010/15/contents
5. Arshad R, Bagchi P. From inclusion to transformation to decolonisation [Internet]. Teaching Matters blog. The University of Edinburgh ; 2021 [cited 2023 Feb 23]. Available from: https://www.teaching-matters-blog.ed.ac.uk/from-inclusion-to-transformation-to-decolonisation/
6. University of Aberdeen. Equality, Diversity and Inclusion Policy [Internet]. University of Aberdeen. 2019 [cited 2023]. Available from: https://www.abdn.ac.uk/staffnet/documents/policy-zone-governance-%20and-compliance/Equality_Diversity_Inclusion_Policy.pdf

Making Your Teaching Materials More Accessible
Learn a digital skill, help students reach their potential.

UNIVERSITY OF ABERDEEN 1495

I am so grateful for the support I've been given in school. They gave me extra help and revision materials. I wouldn't have the grades I achieved if it wasn't for them.

Accessibility to me means everyone can have the same educational and life experience when at university.

I believe schools genuinely want to help and support all of their students the best they can, however, I feel the issue is more in understanding how to.

Challenges

Making teaching accessible can be time-consuming and overwhelming, adding extra workload to staff.

There are so many types of guidance on accessibility it is hard to know where to start and how to approach things.

Improve PDF accessibility in five quick steps

1. Ensure the original document follows accessibility guidelines such as adding alt text and using styles.

2. Use the Accessibility checker in Microsoft 365 apps to ensure you are not forgetting anything.

3. Use the 'export' option in the desktop app for Word or PowerPoint.

4. Click on 'options' in the 'save as' dialogue box and make sure 'create bookmarks using headings' and 'document structure tags for accessibility' have been ticked.

5. Try to open your newly created PDF in Microsoft Word. If it opens as an editable text, then the document will be machine-readable. Alternatively, you can check it using an immersive reader or a read aloud option in your PDF viewer or browser.

Check Accessibility

Read Aloud
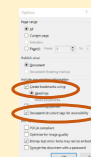
Other things to consider

Play around with accessibility tools to better understand what they do and how they work.

Use OCR (Optical Character Recognition) software when scanning documents to convert the PDF into an editable and searchable document.

Find more guidance on how to improve accessibility of existing PDF documents on the Welsh Government Website.

SCULPT your materials for accessibility

Structure
Making your materials predictable and easy to follow for all.

Colour and contrast
Keep it easy on the eyes. Check your colours with the WebAIM: Contrast checker.

Use of images
No more confusions about what an image is and what is its purpose.

Plain English
Using plain English does not mean you cannot explain complex ideas or topics. Instead, it helps you get your point across with fewer misunderstandings.

Find more guidance on the Plain English Campaign website.

Tables
Make them easy to read with accessibility tools.

SCULPT

Links
Use descriptive links rather than 'you can find the link here'.

I want - to feel included, to be recognized, to have opportunities which are accessible and interesting to me, [...] to not feel excluded or that I am taking too much space or asking for too much.

Part of the reason I had so little support at University is because I was afraid of the backlash I would receive if I asked for them.

I've never felt able to raise any issues due to my lack of diagnosis.

In group discussions or content with high levels of collaboration it can be harder to engage, and the noisy surroundings can make it harder still.

I would like for PowerPoints to be the same format as much as possible within a course or module to make it easier for individuals with specific learning differences or visual impairments.

I think more could be done to help peers have a greater understanding of other people's difficulties and barriers, to reduce stigma and promote inclusivity.

Conclusions

Leveraging technology and digital skills can help improve access to teaching for all and help people feel more included and welcome in higher education. If you have any questions about accessibility or would like help with using technology to enhance your teaching contact the Digital Skills Team at tad@abdn.ac.uk.

Our team: Claire Molloy, Pauline Fraser, Kim Richmond, Tim Riley, Sarah Todd, Lida Rocmanova.

References

1. Disabled Students UK (2023). *Access Insights Report 2023*. [online] DSUK. Available at: https://tinyurl.com/dsuk-access-insights-2023.
2. Plain English Campaign. (2024). *Plain English Campaign*. [online] Available at: https://www.plainenglish.co.uk.
3. UCAS (2022). *NEXT STEPS What is the Experience of Disabled Students in Education?* [online] UCAS. Available at: https://tinyurl.com/ucas-next-steps.
4. University of Bristol (2022). *Digital Accessibility in Learning: Survey Data Summary*. [online] University of Bristol. Available at: https://tinyurl.com/digital-acc-in-learning.
5. WebAIM (2019). *WebAIM: Contrast Checker*. [online] Webaim.org. Available at: https://webaim.org/resources/contrastchecker.
6. Welsh Government. (2024). *How to create accessible PDF documents | GOV.WALES*. [online] Available at: https://www.govwales/how-create-accessible-pdf-documents.
7. Worcestershire County Council. (n.d.). *SCULPT for Accessibility*. [online] Available at: https://www.worcestershire.gov.uk/council-services/business/digital-worcestershire/sculpt-accessibility.

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Open to all: the role of our libraries in empowering inclusive learning

Sarah Todd | Sir Duncan Rice Library (SDRL), Digital & Information Services, University of Aberdeen | Sarah.todd@abdn.ac.uk

Providing accessible resources

- Our **Reading List Service** provides accessible reading lists through Leganto web software.
- It's easy for students **to view their reading** from within My Aberdeen. Lists can be exported into different file types.
- Teaching staff can quickly request new materials by adding **tags to citations**.

Add Tag

📖 Essential Item - Please Purchase E-copy

📖 Decolonisation - Please Purchase E-copy

🏷 Essential

🏷 Recommended

🏷 Additional

- Staff can send **scanning requests** directly to the library. Print items are scanned, Optical Character Recognition (OCR) is enabled, and a link is added to the reading list.

Figure 1. – Benin bronze, repatriated 2021   Figure 2. - Powis Gates, funded with slavery reparations money

Supporting decolonisation

- Staff can request new items to support decolonisation by applying the **Decolonisation tag** in Leganto.
- **10% of all new materials** bought for teaching this year have been under this tag.
- A quiz and audit tool can help you decolonise your reading list – see the UoA Decolonisation webpages.

Services for disabled students and staff

- We are committed to providing materials that are **accessible to all**.
- There are 4 library-specific **Inclusion Adjustments** for students – please get in touch to see how we can help!
- We can provide free membership for qualifying staff and students to the **RNIB Bookshare** service – a huge database of accessible books.

Visual impairment 👁	Learning disability 🎓	Physical disability ♿	Language 🌐
✔ **Qualified.** Blind and partially sighted.	✔ **Qualified.** Dyslexia, Autism, Attention Deficit Disorder.	✔ **Qualified.** If it significantly affects use of printed materials.	✖ English as an Additional Language is not a qualifying disability.

Figure 3. – RNIB Bookshare Eligibility criteria
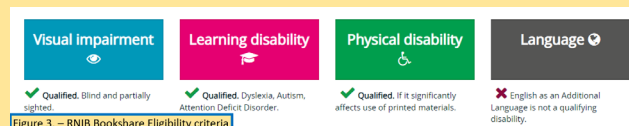
- We can request **free, accessible copies** of books from publishers.
- Contact us to find out more: librarydisability@abdn.ac.uk
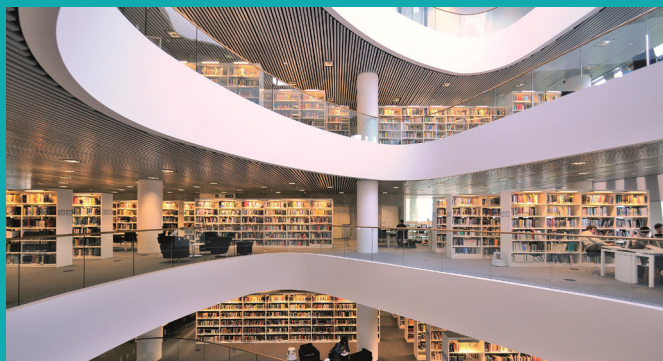
References
Fig. 1. – University of Aberdeen (2021) *Ceremony to complete the return of Benin Bronze.* Available from: https://www.abdn.ac.uk/news/15479/ (Accessed 27 March 2024)
Fig. 2. – University of Aberdeen (2022) *Plaque installed to mark the legacy of slavery at the Powis Gateway.* Available from: https://www.abdn.ac.uk/news/16390/ (Accessed: 27 March 2024). Image credit: Parnell, T. (2023) *Powis Gates, Old Aberdeen.* Available from: https://www.flickr.com/photos/97595808@N00/53449032158 (Accessed 27 March 2024)
Fig. 3. - Royal National Institute for the Blind (2024) *Who qualifies? | UK Education Collection.* Available from: https://www.rnibbookshare.org/cms/bookshare-me/who-qualifies (Accessed 27 March 2024)
Eschleman, K.J., Madsen, J., Alarcon, G. and Barelka, A. (2014), Benefiting from creative activity: The positive relationships between creative activity, recovery experiences, and performance-related outcomes. *J Occup Organ Psychol,* 87: 579-598. https://doi.org/10.1111/joop.12064
Nance, M. K., (2022) "Playing for Keeps: How academic libraries are prioritizing student mental health and well-being through play", *The Journal of Play in Adulthood* 4(2), 162-176. doi: https://doi.org/10.5920/jpa.1026
University of Aberdeen (2016) *Duncan Rice Library Interior.* Available from: https://assetbank.uoa.abdn.ac.uk/asset-bank/images/assets/13601-13700/13602/45_Library_Inner1.png (Accessed 27 March 2024)

Wellbeing initiatives

- **Creative play** can **boost performance** and **improve wellbeing** (Eschleman et al., 2014). Academic libraries are adopting these principles (Nance, 2022).
- **Creativity and wellbeing collection** on Floor 2 of SDRL – staff and students have donated items, and we received a grant by the Development Trust Student Experience fund.
- We'll buy items in consultation with our community – including **sensory items, craft supplies, games and puzzles**.
- **What do you want to see on the shelves?** I'd love to hear from you! Get in touch at sarah.todd@abdn.ac.uk
- **Wellbeing Wednesdays - c**ome along and take a break! Drop-in sessions to help you recharge.
- Our ever-popular **Woofie Wednesdays** – therapy dogs visit us every Wednesday. Now being held in all our libraries!

Part of our Black History Month book display   Tweedy Bear, therapy dog

Diversifying our collections

- We **ask our community for recommendations**.
- Last year we bought books for Black History Month and LGBT History Month.
- This year, we bought **113 new books** for Disability History Month and International Women's Day.
- Find themed book displays on **Floor 2** of SDRL.

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STUDENTS' PERSPECTIVES ON GENERATIVE ARTIFICIAL INTELLIGENCE

Changel K. Jolly, Emily Cleland, Kirsty Kiezebrink, Catherine Ogilvie, Sara Preston

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INTRODUCTION

Generative AI (GenAI) can generate text, images, or media using models that learn from input data patterns and structure.[1]

While GenAI tools hold significant promise for enhancing the student learning experience, they also carry the risk of misuse and impacting academic integrity.

AIM

This research aimed to examine student attitudes towards GenAI and assessment practices, highlighting benefits, challenges, and ethical considerations. Insights gained will guide effective and inclusive educational practices for the future.

METHODOLOGY

Students of all levels and disciplines were invited to focus groups to discuss academic integrity, ethical implications of using GenAI, and ways to support and inform students in using these tools.

Participants were presented with scenarios describing student use of GenAI and asked for their views. Open-ended questions were also asked during the sessions.
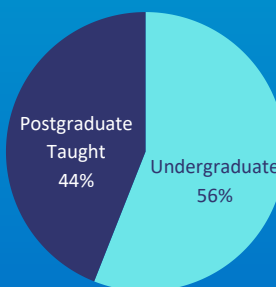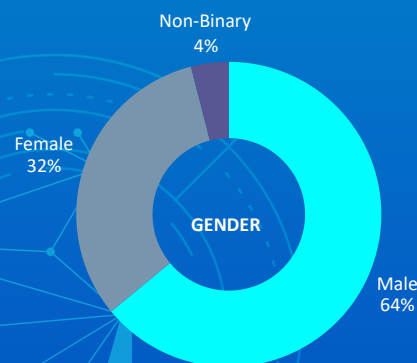
PARTICIPANT DEMOGRAPHICS

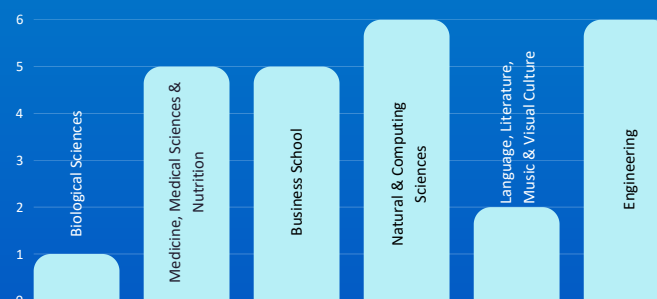25 Participants took part in the Focus Group Study Sessions

52% participants had English as second language

LEVEL OF STUDY
- Postgraduate Taught 44%
- Undergraduate 56%

GENDER
- Non-Binary 4%
- Female 32%
- Male 64%

SCHOOL OF STUDY
(bar chart, y-axis 0–6)
- Biological Sciences: 1
- Medicine, Medical Sciences & Nutrition: 5
- Business School: 5
- Natural & Computing Sciences: 6
- Language, Literature, Music & Visual Culture: 2
- Engineering: 6

EMERGING THEMES

SKILLS GAINED & SKILLS LOST: Students using GenAI might enhance their skills, but in some cases, they may lose the opportunity to further develop a vital skill.

RESPONSIBILITIES: Staff are responsible for designing authentic assessments that are resistant to plagiarism and students are responsible for abiding by guidance on academic integrity.

DETECTION TOOLS: Educating students as well as staff on the purpose and limitations of plagiarism detection tools.

REFERENCES

1. Marr, B. (2024) 'The difference between generative AI and traditional AI: an easy explanation for anyone,' Forbes, 20 February. https://www.forbes.com/sites/bernardmarr/2023/07/24/the-difference-between-generative-ai-and-traditional-ai-an-easy-explanation-for-anyone/.

BREAKING THE BINARY: REDEFINING ANATOMY EDUCATION FOR GENDER INCLUSIVITY

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Introduction:

- Societal views on gender and sex have evolved over 20 years, yet anatomy education hasn't kept pace.

- Calls for more gender-neutral and inclusive medical curricula have been made to align with diverse patient populations (Morrison et al., 2017; Dublin et al., 2018; James & Sylvester., 2018).

- Biased education influences future healthcare professionals' attitudes and behaviors (Lawrence and Bendixen, 1992; Mendelsohn et al., 1994).

Aims:

- Identify biased aspects in current anatomy curricula regarding gender and sex.
- Highlight areas needing improvement for more inclusive curricula.
- Explain how inclusive anatomy education can benefit minority healthcare.
- Develop actionable proposals for educators to teach sex and gender inclusively.

Rates Of Newly Recorded Transgender Identity during 2000-18 , by Age group

Fig 1. Increase in persons identifying as transgender between 2000 and 2018. Adapted from BMJ medicine 2023.

Typical biological female — Intersex Conditions — Turner Syndrome — XX Testicular Disorder of sexual disorder — Congenital Adrenal Hyperplasia — Mixed Gonadal Dysgenesis — Androgen Insensitivity Syndrome — Klinefelter Syndrome — 5-alpha reductase deficiency — Persistent Mullerian duct Syndrome — Typical biological male

Fig 2. Visualization of Sex as a Spectrum. Adapted from Scientific American; 2017.

Methods:

- Conduct a review of existing literature to determine current thinking around how sex and gender are taught, especially in anatomy.
- Carry out an audit of current anatomy teaching resources to discover their shortcomings in the areas of gender and sex inclusivity.

Results and Conclusions:

- Anatomy curricula at all levels requires modification as it currently fails to represent an inclusive view of sex and gender.

- Anatomy teaching fails to expose students to the full spectrum of sex and gender.

- A set of workable language guidelines should be added to anatomy curriculum to educate on gender affirming language.

- Essential physical learning resources e.g. models should mirror inclusivity with transgender, intersex and sexually diverse options.

- Anatomy literature massively underrepresents all sexually diverse individuals. This unbalance should be remedied with the addition of inclusive diagrams and images.

(Parker, Larkin and Cockburn, 2017), (Morrison et al., 2017; Dublin et al., 2018; James & Sylvester., 2018), (Alexanderson et al., 1998; Giacomini et al., 1986), (Lawrence and Bendixen, 1992; Mendelsohn et al., 1994), (ihra.org.au, 2016), (Montañez, 2017)

TESTA: Transforming the Experience of Students Through Assessment

TESTA involves programmatic review, mapping assessment & feedback practices across a degree programme. Data sheets are completed for each course, showing intended learning outcomes, assessment practices and feedback types.

Sample Data Sheet

Intended Learning Outcomes ✖

Unclear, vague	Clear!
Analyse the Reformation in Scotland	Articulate in written form, an argument on how, when and why the Reformation came to Scotland.

Clear guidelines are required so that students know exactly what they are meant to accomplish and how they are expected to achieve these objectives.

Non-varied assessments

Unclear how feedback will be delivered

Varied assessments ✔

Clear how students can expect to receive feedback.

Summative Assessments	Feedback Format	Weighting
Essay	Not Specified	100%

Formative Assessments	Feedback Format	Connected Summative
None	0	0

Summative Assessments	Feedback Format	Weighting
Essay	Written/Oral	50%
Presentation	Peer / Video Feedback	20%
Online Exam	Written	30%

Formative Assessments	Feedback Format	Connected Summative
Draft Essay Outline	Written/Oral	Final Essay
Draft Slides	Oral	Presentation

Clear how Students can expect to receive feedback

Purpose of Assessment and link to the summative unclear

Created by TESTA Student Assistants, Tamzin Westhead (DHPA & Social Sciences) and Bethany Parrillo (DHPA): bethanymarie.parrillo@abdn.ac.uk, S04tw3@abdn.ac.uk

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Developing Geo-maths resources to improve students' skills and self-efficacy

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The problem

Geology in a **quantitative subject** and students need **mathematical skills to succeed** in their current degree, be able to undertake future study, and be competitive in seeking employment opportunities[1]

Students report being **worried about maths. Staff** may be **hesitant** about **including** more **quantitative learning activities** in geology courses. This means **maths skills** remain **underdeveloped**.

Intervention

Stage 1

Identify:
- **Maths skills** students need
- The **type of resources** useful for students
- **Where and how** to deploy resources

Stage 2

Co-create[2] maths **resources** with **student interns,** one from 2nd year, one from 3rd year

Stage 3

Deploy maths **resources** developed across Geology courses

Objectives

- **Students** who have **higher self-efficacy** with respect to maths[3]
- More **quantitively literate students**
- **Staff** feeling more **confident** about including quantitative material in their courses

Stage 1

Survey of undergraduate students taking Geology courses in 2nd Half Session 2024 using MS Forms

76
Students participated in the survey

Interviews with staff teaching on Geology undergraduate courses

12
Staff participated in the interviews
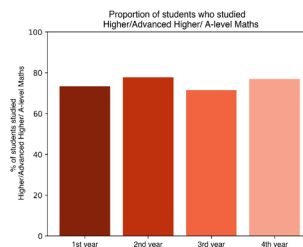
Survey results

Figure 1: Percentage of students in each year who report studying Higher, Advanced Higher, A-level maths or equivalent. Year 1: 22/30, Year 2: 14/18, Year 3: 10/14, Year 4: 10/13
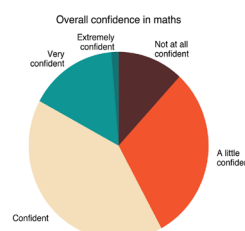

Figure 2: Reponses to the question: "Select the option which best describes your overall level of confidence in your mathematical skills", n=76
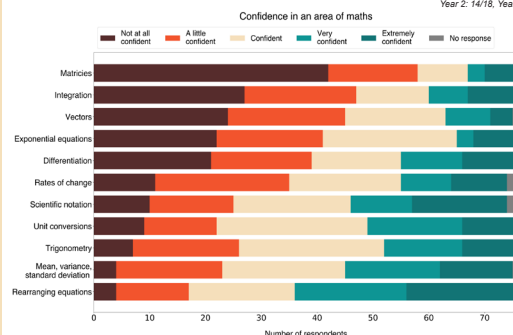

Figure 3: Reponses to the question: "Select the option that best describes your level of confidence in solving a problem using the following areas of maths that may be important to geological applications
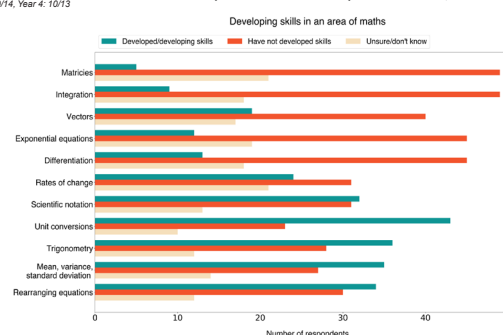

Figure 4: Reponses to the question: "Which of the the following areas of maths, which may be important to geological applications, do you feel you have developed or are developing skills in during the geology courses you have taken in so far in your degree"

Key findings from the survey and interviews

Most students taking Geology courses have **taken A-level, Higher or Advanced Higher Maths** courses **BUT** staff assume the numbers are low.

Students have **lower levels of confidence** in areas of maths **beyond National 5/GCSE** and these areas are **not being developed in Geology courses**

Having **taken A-level, Higher or Advanced Higher Maths courses** results in statistically significant **higher levels of confidence**. Levels of confidence **do not vary with year of study or degree programme,** with the exception of BSc Geology and Physics.

Most staff cite **students' fear or lack of confidence** as a **challenge** for including mathematical content in their courses.

Stage 2

Staff and students suggest:

Geology specific examples[4] | Online self-study | Videos | Worked examples | Support sessions, tutorials

Students indicate **mathematical content earlier** in degree would be useful. **Some staff** suggest **early on, others** suggest **levels 3 and 4.**

Focus on **developing materials** around **trigonometry** and **rearranging equations, with student interns**

Literacy Brokering: Helping International Students Develop Disciplinary Communication

Dr Julie Bray & Alison McBoyle , The Language Centre
j.bray@abdn.ac.uk

GO BEYOND BOUNDARIES

Challenging Deficit Narratives

- Lecturers might associate problems that students face as primarily linguistic (Lomar, Taha and Hayes,2023; Hall and Waiching, 2009).

- There is a danger that language proficiency is conflated with specialised thinking and literacy skills (Ryan and Vielte, 2009; Jacobs, 2015).

- The impact of culture on students' ability to communicate and participate effectively within academic discourses is underestimated (Cortazzi and Jin, 1996).

Literacy Brokering & Mediation

'I can recognize a good piece of student writing when I see it. I know when it is well-structured and has a well-developed argument, but it is difficult to say exactly what I am looking for, let alone describe a good argument more fully'
Quote from a lecturer

Creme and Lea, 1997, pp. 36-37.

Academics: expectations & disciplinary norms

English for Academic Purposes (EAP) tutors specialise in analysing academic discourse & focusing on issues of accessibility and communication

'I am a foreigner, I cannot understand their questions very well, but it doesn't mean I cannot solve these problems'
University of Aberdeen student 2022

Students: experiences, expectations and understandings

- Academic literacy is not a set of generic skills but differs across academic specializations (Gee,1998).
- Texts (and so language use) give students access to disciplinary ways of thinking and communicating (Vygotsky,1987).

- Some students have reported facing difficulties making the switch from IELTS- style writing to more authentic forms of academic writing (Clark and Yu, 2021).
- Geisler (1994) found that students struggle with rhetorical processes. This might be because some elements found in research articles are not overtly obvious to students and so immersion alone is not sufficient to develop literacy practices (Jacobs, 2015)

Business: Embedding Support

Providing timetabled support promotes equal opportunity for all students, allowing time and space to engage with academic skills.

Collaboration
- Zero-credit courses co-designed
- Content based on feedback from academics
- Academic writing embedded into the curriculum
- Worked on the principle of providing timely support

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Law:Team Teaching

Combining content and writing support is a holistic approach that sees the subject lecturer and the academic writing tutor working together. Both legal content and the ability to construct writing that meets expectations are addressed.

Collaboration
- Working together to scaffold a formative writing task
- Legal input provided by law lecturer
- Specific language and writing input provided by LC staff in the same session

Medical Sciences:Student Learning Communities

To provide support for multiple specialisations within a discipline workshops focused on analysing a research article. This highlighted the interrelationship between content & structure of academic texts. Students were able to apply some of these insights to their own writing.

Collaboration
- Group work analysing texts
- Students sharing experiences
- Comparing approaches & strategies
- Peer feedback

References