



Building presentation confidence through choice and flexibility within the first-year science curriculum

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ABSTRACT

Public speaking is a critical employability skill, yet for many first-year students, it is one of the most anxiety-inducing academic tasks. Recognising that lack of confidence, fear of judgement and unfamiliarity with academic expectations can be barriers to students engaging with oral assessments, this vignette describes an intervention designed to shift control to the students, with the aim of boosting presentation confidence.

This intervention aimed to reduce performance anxiety by handing students control over their first university presentation, enabling them to meet core learning outcomes while working within their comfort zones. This flexible, student-centered approach placed students in control over:

- i) the presentation topic;
- ii) the delivery mode (live or pre-recorded); and
- iii) the timing of their presentation.

By choosing a topic of personal or discipline-specific interest, students demonstrated greater enthusiasm and ownership over their learning. The option to pre-record allowed those with presentation anxiety to rehearse and edit their work, while the flexibility around timing helped students to manage workloads and personal commitments, as well as prepare at their own pace.

Early reflections and feedback indicate that this approach boosted students' confidence and engagement with presentations. Embedding low-stakes choice and flexibility into assessment design can play a crucial role in easing the transition to higher education, particularly for students who may lack confidence or prior experience with presenting to an audience. We conclude by exploring how scalable, inclusive assessment practices can foster agency, belonging and confidence from the very start of the university experience.

Keywords: presentation skills, student confidence, relational pedagogy, first-year experience, learner agency

Introduction

The first semester of university is a critical phase in the student lifecycle, marked by significant academic, social and personal adjustments. Students face challenges on multiple scales from major transitions such as moving home and forming new social networks to smaller but equally impactful tasks like submitting their first assignment (Edmunds et al., 2025). These early experiences strongly influence retention and success (Blake et al., 2022; Thomas, 2013), and when compounded by additional stressors, such as high-stakes assessments, can lead to cognitive and emotional overload that undermines learning (Richardson & Tate, 2013).

For many students, particularly those who are first in their family to attend higher education, unrealistic expectations about university life further complicate this transition (Blake et al., 2022). Lack of knowledge around expectations and potential misconceptions amplify uncertainty and heighten the pressure of early assessments, which often rank among the most stressful experiences of a student's academic career (Grieve et al., 2021). This combination of unfamiliarity, fear of judgment and low confidence creates barriers to engagement, especially with oral assessments, widely recognised as anxiety-inducing for new students (Grieve et al., 2021).

Public speaking is a core employability skill (Clokier & Fourie, 2016) and an essential component of many degree programmes, yet it remains one of the most common sources of student anxiety (Grieve et al., 2021; Russell & Topham, 2012). Addressing this challenge requires approaches that build competence while fostering confidence and agency. Relational pedagogy offers a useful framework for this, emphasising the importance of meaningful connections between educators and students and among peers, whilst also nurturing relationships to create a supportive environment where students feel valued and understood, thus reducing the fear of judgment that often accompanies presentations (Bovill, 2020; Gravett et al. 2024).

This paper describes the design of an assessment implemented in the first semester of a Foundation Year Biological Sciences module. The approach embeds choices and autonomy into the assessment design with the aim of reducing performance anxiety and promoting the development of presentation skills through a flexible, student-centered model. Inclusive practices such as this offer a scalable approach to supporting diverse cohorts and fostering agency and belonging from the outset of the university experience. Ethical approval for the data reported here was granted by the University Science Faculty Research Ethics Committee (ETH2425-0156).

Context and intervention timeline

This student-led presentation sits within a year-long, core skills module taken by all students enrolled on Biological Sciences Foundation Year courses at the University of East Anglia, UK. Introduced in 2023/24 as a 20-credit module (each year of undergraduate study is worth 120 credits), it retained this structure in 2024/25 before expanding to 40 credits (and thus one-third of the credits taken that year) in 2025/26, with the presentation task being a consistent feature across all years. The assessment described in this paper is experienced by students during their first year of Higher Education study, which for these students is at FHEQ level 3. This assessment is introduced in their first week of teaching and assesses three specific learning outcomes which are ability to:

- i) Communicate scientific ideas clearly and appropriately using a variety of formats which may include written, oral and visual methods.
- ii) Locate, evaluate and reference scientific literature using appropriate conventions and digital tools.
- iii) Demonstrate professional behaviour and responsibility when working both independently and as part of a team.

From the initial session through to the delivery of the presentations approximately ten weeks later, elements of control over the assessment – including the presentation topic, mode of delivery and timing of the presentation – are progressively passed to students, fostering autonomy and confidence throughout the process.

Student choice over the presentation topic

In the first session of this module, students are invited to respond to the question: “What are the Grand Challenges facing biologists?” Responses are submitted anonymously via the audience polling tool ‘Poll Everywhere’, generating a dynamic word cloud. Students can upvote entries, collectively creating a ranked list of priority challenges and this task alone generates much discussion and excitement amongst the students and starts the building of connections within the cohort. The top four responses from the word cloud then form the shortlist of topics available for the summative presentation (Table 1).

Table 1 The four most popular answers given by Foundation Year biology students when asked “What are the Grand Challenges facing biologists?”

Rank	Academic Year		
	2023/24	2024/25	2025/26
1	Ethics	Salary/Pay/Funding	Artificial Intelligence (AI)
2	Funding	Ethics	Climate Change
3	Disease Prevention	Stress	Funding
4	Environmental Change	Climate Change	Politics

The assessment is introduced immediately after this activity, with students told to choose one of these four topics to explore in a five-minute presentation, delivered later in the semester. From this first session, the emphasis is on student autonomy with the assessment deliberately designed to give learners maximum control over key elements of this first ever university presentation.

Student choice over the presentation format

In Week 4, students are invited to select their preferred presentation format: either delivering live, in-person or submitting a pre-recorded presentation to be played during a scheduled session (Table 2). All presentations are given to small groups of 8-10 peers and are assessed by two academics known to the students.

Table 2 The number of students opting to deliver their summative semester 1, first-year presentations live and in-person versus via a recording played in-person, for each of the academic years that this assessment format has run.

Format	Academic Year		
	2023/24	2024/25	2025/26
Live and in-person	25 (52.1%)	38 (77.6%)	61 (81.3%)
Recording, played in-person	23 (47.9%)	11 (22.4%)	14 (18.7%)
Total number of students	48	49	75

Week 5 introduces a role play and improvisation-focused seminar, a technique known to build oral presentation confidence and skills (Phelps et al., 2021). Students are invited to practice by delivering a one-minute presentation on a topic they know better than the audience – themselves – using four bullet points as prompts. Examples presented by past students include their university commute, becoming captain of a school swim team, their journey to university for arrivals weekend or stories about their hometown. This scaffolded low-stakes activity builds confidence and presentation skills while fostering a

sense of belonging within the cohort. By encouraging personal storytelling, the seminar promotes peer connection and helps students learn more about each other, strengthening community and engagement.

Student choice over the presentation timing

By the end of week 6, students typically know their topic and preferred delivery format, leaving them to decide on the final element within their control, the timing of their presentation. Regardless of delivery mode, all students must upload slides or visual aids to the virtual learning environment by the end of Week 9, with presentations scheduled in Weeks 10 and 11.

Students choose from a range of two-hour time slots offered across different days, providing flexibility for those with external commitments such as paid work, caring responsibilities or health-related needs. This choice reflects principles of inclusive assessment by reducing structural barriers and accommodating diverse circumstances, with the embedding of autonomy into the timing of delivery reinforcing a sense of agency and belonging that supports confidence-building during a critical stage of the transition to higher education.

Looking ahead: Scaling up inclusive assessments

Grounded in relational pedagogy, the approach described builds trust and meaningful connections between educators and students and among peers, simultaneously fostering both belonging and engagement. By granting autonomy over presentation topic, delivery mode and timing, the assessment design signals respect for individual circumstances and promotes agency, core principles of relational practice. The approach also reflects elements of transition pedagogy by acknowledging that external factors shape a student's ability to engage in their studies and places value on the cultural capital students bring to university with them (Kift, 2023).

This vignette illustrates how choice and flexibility within assessment design can transform a high-anxiety task into an opportunity for confidence and engagement. Passing control over key aspects of this potentially high-stress, high-stakes task creates an inclusive assessment that embraces relational pedagogy and creates a learning environment that values autonomy and belonging. Early evidence from student module evaluations suggests these design choices reduce anxiety and encourage learner agency, with many students reporting increased confidence and willingness to present live in future assessments. Staff who mark these presentations also report that the development of student confidence and growth is noticeable as the students move through this assessment process and opt to deliver live presentations in their subsequent modules.

Inclusive assessment practices such as these that prioritise student voice and flexibility are not optional enhancements; they are essential for creating equitable, supportive learning environments that nurture student wellbeing alongside academic development. Scaling up inclusive assessment practices and embedding them in courses from the beginning enables us to ensure that all students are starting their higher education journey feeling empowered, valued and set on a path to success. Scaling such practices requires both individual and institutional commitment to flexibility and inclusivity. Embedding similar low-stakes, choice-driven assessments is possible across disciplines and at scale. Ensuring appropriate support and motivation, e.g. training staff in relational approaches and empowering them to make changes to their assessment design, can lead to innovation and drive culture change. Crucially, these strategies should be introduced early in the student journey, when student confidence and sense of belonging are

most fragile. Such early introduction can help student cohorts navigate transition successfully, feel valued within their course and foster a sense of agency that underpins future academic success and personal growth.

Biography

Professor Kelly Edmunds is a Professor of Biology Education and Student Experience at the School of Biological Sciences, University of East Anglia, Norwich, UK. Her work focuses on understanding and supporting the experience of students during their transition into and during, their first year at university. She is a National Teaching Fellow, recipient of the Collaborative Award for Teaching Excellence, a Senior Fellow of the Higher Education Academy, and Fellow of the EFYE.

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