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Evaluating podcasts as a science communication assessment for postgraduate students

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ABSTRACT

Communication to the lay audience is a critical skill in academia. To equip students with this skill, we developed a new workshop and assessment. Postgraduate students attended a 1.5-hour workshop taught by a communication expert to develop communication skills and deliver engaging presentations. They were then asked to develop a 10-minute podcast to present their research dissertation (including background, aims, methods, analysis, preliminary findings, challenges, and importance) to a non-academic audience. Feedback from 15 postgraduate students and reflections from four staff members were gathered and examined. Our results show that both the workshop and podcasts improved students' confidence in science communication, but some adjustments were suggested. Staff reflections were in line with students' feedback highlighting that the assessment was effective in teaching the importance of communicating their research in an accessible way. Overall, podcasts can be used as an alternative assessment tool to teach science communication.

KEYWORDS

Science communication; podcast; assessments; higher education; postgraduate students

Introduction

Communication of research findings to a lay, non-academic audience (e.g. people who are interested in science but do not work in research) is a vital part of science necessary to reach the non-scientific community and make lasting changes in knowledge not only in the academic field but also with the public. Science communication skills are therefore essential for researchers who need to share their findings not only with the research community but also with the wider public. The ability to communicate research in an accessible way and share research findings using lay, non-scientific language is becoming increasingly important among both scientists and clinicians. Peer-reviewed journals are also adopting strategies such as the inclusion of 'lay summaries', instructions to authors to avoid jargon, and getting feedback from people outside the field to make complex literature more accessible (Sedgwick et al., 2021). Historically, poor communication has contributed to difficulties in

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research dissemination, including inequalities in accessing scientific articles from the public due to complex language and failure to divulge scientific evidence (Leshner, 2003; MRC & Riordan, 2001). Training for researchers is therefore required in areas such as dissemination, knowledge exchange with institutions outside academia, and public engagement. Nevertheless, universities are still providing guidance and training mainly focused on sharing research findings within the scientific community (e.g. using poster presentations or oral research presentations), whereas science communication for the lay audience is often not included in the learning objectives despite evidence showing its importance in increasing research impact and overcoming social inequalities (Bernard et al., 2013; Moni et al., 2007; Petzold & Dunbar, 2018; Sedgwick et al., 2021).

Communication with the public is indeed different from communicating with the scientific community and researchers require practice and careful attention to language (Brownell et al., 2013). For instance, avoiding complex language or jargon, being mindful of sentence length and structure, as well as sensitively engaging audiences are among those skills that need to be refined (Bernard et al., 2013; Orritt & Powell, 2020; Sedgwick et al., 2021). Learning how to communicate scientific results confers significant advantages not only for academia but also for clinical practice and those working in the industry. From an academic perspective, dissemination to lay audiences increases the impact of research, for example, by attracting the media and accessing research funding. For instance, funders increasingly demand that researchers demonstrate how they intend to disseminate their findings to the lay public as part of grant applications and schemes. Discussing one's research with the public can contribute to overcoming social inequalities in terms of access and increasing trust in scientific practices and evidence, as well as engaging people with research. Regarding industry and other non-academic or clinical settings, being able to explain complex concepts using lay language to customers/clients/patients/colleagues from other teams and departments is an essential skill that can lead to increased profit and success for a team/company. Many employers nowadays stipulate 'good communication skills' as essential criteria in their job adverts. For all these reasons, it is essential to help students develop their communication skills not only for academic and clinical purposes but also to provide an advantage when entering the wider job market.

Communication with the public occurs in many ways from dedicated meetings/conferences to TV programmes and magazines, however, nowadays, social media platforms are the leading tools in science communication. Among those, Twitter, YouTube and Facebook have been the most used platforms among scientists (Van Eperen & Marincola, 2011), with academics engaging mostly in blogs, discussion groups, online communities, and social networking: all of which are considered beneficial ways of sharing ideas (Kent, 2008), and also provide efficient transmission of scientific advances to the lay public (Bubela et al., 2009; Cook et al., 2007). Another important and emerging method of communication used on social media platforms is the podcast (MacKenzie, 2019). Podcasts are audio/video broadcasts hosted online and distributed to the public using online platforms and are particularly convenient for their audience as these can be listened to while undertaking other activities being therefore very attractive (MacKenzie, 2019). Podcasts usually discuss specific themes/topics for dissemination or entertainment purposes. Like blogs and social media, podcasts can reach audiences beyond academic journals and research communities

and can be particularly helpful in reaching young people (Johnson & Ayers, 2016). Specifically, podcasts attracted over 19.1 million people in the UK according to a report published in 2022, with an increase of 40% following the pandemic (Tobin & Guadagno, 2022). Despite these useful tools, the percentage of scientists and clinicians communicating with the public through social media is very small compared to lay people engaging in conversation, and the number of scientists able to communicate in an accessible language is even smaller (Van Eperen & Marincola, 2011). There is therefore an urgent need for scientists and clinicians to engage in conversation with the lay audience and such communication training that can be provided by universities.

Podcasts have been increasingly used in higher education as a tool to provide enriched and engaging learning (Conroy & Kidd, 2022, König, 2021; Ferrer et al., 2020). For instance, podcasts can be a valuable resource for asynchronous teaching or active learning, providing students with alternative materials to engage with (Conroy & Kidd, 2022), as well as promoting deeper learning, decreasing students' learning anxiety, improving student-teacher rapport and, ultimately, achieving higher grades (Conroy & Kidd, 2022, König, 2021; McGarr, 2009; Pegrum et al., 2015). Evidence has highlighted that including podcasts as a form of assessment was positively perceived by students who preferred podcast assignments over traditional essay coursework and indicated podcasts as better tools for building their confidence as communicators (Hopkins, 2012; Wakefield et al., 2022).

To address the educational gap in teaching science communication skills, the research team of the MSc in Early Child Development and Clinical Applications at University College London (UCL) and Anna Freud National Centre for Children and Families (AFNCCF) implemented a novel podcast assessment for students. The MSc in Early Child Development and Clinical Application (UCL and AFNCCF) is a 2-year programme based in the UK with a strong focus on theory, research, and clinical practice in the early years. The MSc research team recognised the importance of training their students on how to communicate scientific research with a lay audience. Students enrolled in the MSc in Early Child Development and Clinical Application will be among the next generation of clinicians and researchers who will work with children and parents, as well as multidisciplinary teams. The course recognised the importance of training their students so that they will be able to effectively reach children and parents, as well as engage in constructive discourse with teams with different perspectives. To achieve this aim, the team introduced an innovative podcast assessment within the Research Project module. Students were required to prepare a 10-minute podcast presenting their research dissertations to a non-scientific audience. The podcast was chosen as a novel medium that has become increasingly important in education and research, which also allows students to develop digital proficiencies. The aims of this study are:

(a) to collect and analyse students' feedback on the podcast assessment to evaluate its effectiveness in helping students develop their science communication skills and implement students' suggestions for improvement.
(b) to provide staff reflections on how the podcast prepared students in developing their skills, and on the overall marking process.

Methods

The project received ethical approval from the University College London Research Ethics Committee (19513/007).

Sample

The research was conducted in London, UK. The Sample consisted of 15 students enrolled in their first year of a postgraduate course in Early Child Development and Clinical Application and 4 members of the staff who were involved in the marking of the podcasts. The students were all enrolled in the Early Child Development and Clinical Application postgraduate course, the age range was between 22 to 44 and 93% of the students were females. 80% of the students were coming from psychological undergraduate studies while the remaining students came from other academic backgrounds (e.g. pedagogy, sociology). Further information about the sample is reported in Table 1.

Procedure

The podcast assessment

At the end of the first year, students were asked to develop a 10-minute podcast using a platform of their choice. Students were allowed to use any method to create the podcast (but were given suggestions of free-to-use platforms such as Anchor https://anchor.fm) and were asked to download their podcast in mp4 format. Students were instructed to use the podcast to provide a clear overview of their research in-progress from their dissertations including background, aims, research methods, analysis methods, preliminary findings (if any), challenges and importance. The target audience for the podcast was a lay audience with a general interest in science. The aim of the podcast was to inform and engage the lay audience with the research project.

The marking criteria for the podcast were developed by the MSc research team and were based on existing marking criteria for similar types of assessments, such as oral presentations and informative leaflets that were adjusted for the purposes of this assessment. The criteria included: (a) demonstration of knowledge and relevance of the research, (b) presentation, accessibility, and inclusivity and (c) demonstration of critical and reflective thinking about own research and the literature presented. Knowledge and relevance (a) assessed the capacity to provide a clear overview of research-in-progress (i.e. background, aims, research methods, analysis methods, preliminary findings, challenges, importance), including relevant theories, research studies, and issues related to the subject. Presentation, accessibility and inclusivity (b) assessed the ability to present ideas in a concise and coherent manner, the ability to keep the audience engaged, and the ability to 'translate' complex information into an accessible and inclusive format. Finally, critical and reflective

Table 1. Summary statistics.

Participants	N	Age Mean (SD)	Sex (F:M)
Students	15	26 (5.1)	14:1
Supervisors	4	42.5 (12.1)	4:0

thinking (c) assessed the ability to critically reflect on their own research, as well as the extant literature. Detailed marking criteria to assess the students' submissions, assessment guidelines and an example of a marking sheet are reported in the supplementary material. The assessments were marked independently by two members of the research staff (students' own research supervisor and another supervisor unfamiliar with the project), who met to compare and discuss their marking and agree on the final mark.

The workshop

In preparation to the podcast, all students attended an online 1.5-hour online workshop led by a communication coach with 10 years of experience working with entrepreneurs and scientists. The workshop was focused on applying methodologies practised by professional actors and general knowledge from communication research to help students identify and overcome with confidence any communication barriers. The workshop started with a 15-minute presentation on how to communicate effectively, followed by interactive learning activities. The focus of the presentation was on how to create engaging presentations. Students were then guided in a warm-up exercise to prepare for a public speech and were then instructed to do different activities, including mindful breathing and other exercises to activate the diaphragm by producing sounds with the mouth, and exercises to warm up the muscles around the mouth and the throat. The focus of the warm-up was to teach students how to become relaxed and confident in preparation for the podcast recording. Students were then asked to volunteer to present their research project in 3 minutes (without any previous preparation), and feedback was provided by peers and the communication expert.

Student and staff feedback on the assessment

To provide feedback on the podcast assessment, students were asked three questions. The first two questions were on a five-point rating scale and students were asked about the extent to which they agreed with each statement, using a Likert Scale from 1 to 5 (not at all, slightly, somewhat, very, extremely). The third question allowed the student to provide a free text response. Questions are reported below:

(1) How effective was the science communication workshop in preparing for the podcast?
(2) How confident do you now feel communicating science to a lay audience after creating the podcast?
(3) Please provide any additional comments.

Reflections on the podcast as a learning experience and on the marking, process were collected separately from each staff member during a dedicated meeting and reviewed for commonalities to generate an overall staff evaluation. SPSS was used to calculate the percentage of responses for each item and evaluate students' experiences.

Results

Demographic information about the sample is reported in Table 1.

Students' feedbacks

Thirteen out of 15 students provided feedback on the podcast. When asked '*How effective was the science communication workshop in preparing for the podcast?*', approximately half of the students (53.8%) felt the workshop was effective (23% of the students found the workshop 'very' effective or 'somewhat effective', and 7.7% of the students thought the workshop was extremely effective). The remaining half of the students (46.2%) reported that the workshop was slightly effective or not at all effective (30.8% of the students found the workshop 'slightly effective' and 15.4% thought it was 'not at all' effective). Results are reported in Figure 1.

When asked *'How confident do you now feel communicating science to the lay audience (after creating the podcast)?*', the majority of students felt 'very' (30.8%) or 'somewhat' (53.8%) confident. Only, 7.7% of the students reported being 'not at all' or 'slightly' confident, respectively (Figure 2).

Four out of the 13 students replied to the open-ended question with very brief feedback.

One student felt the podcast assessment was held too early in the course of the MSc: '*I felt like I wasn't far enough into the research project to know how to communicate it. I think in the future it might be better to do it later in the program'* (Student 1). Student 2 found the podcast useful but complicated to complete due to the novelty of the format in this context, and students 3 and 4 felt there was a lack of guidance and difficulties in understanding what was meant by a lay audience. *'I feel the podcast assignment, whilst useful was quite difficult to complete. From my understanding podcasts usually involve multiple people in conversation and it was difficult to replicate this when (sic) was individual work*' (Student 2). '*I would have wished for more guidance on how to communicate to lay audiences'* (Student 3). '*A lay audience doesn't equal to an uneducated person*' (Student 4).

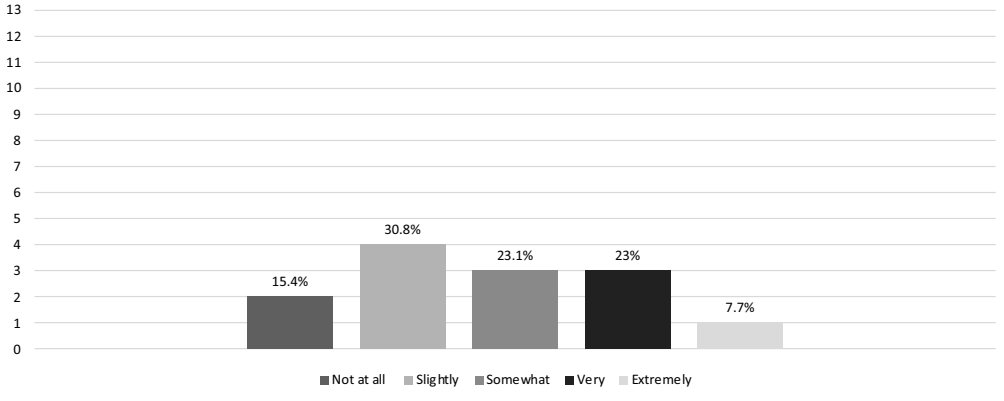

Figure 1. Student's responses to the question 'how effective was the science communication workshop in preparing for the podcast?'.

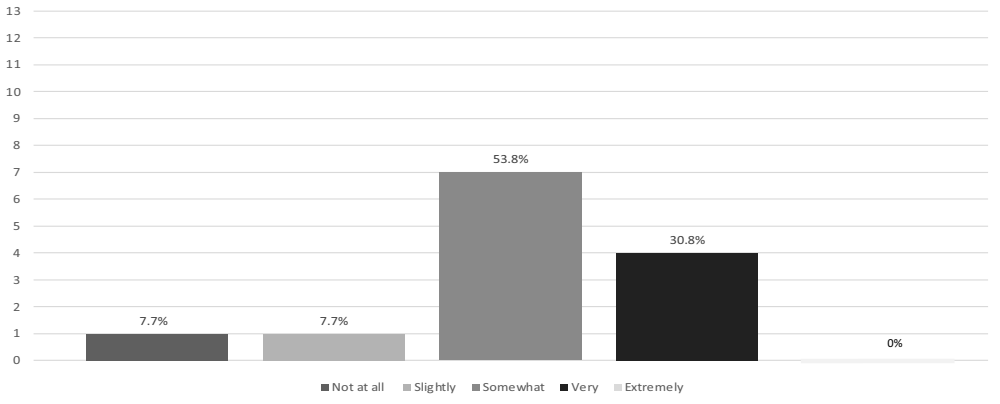

Figure 2. Student's responses to the question 'how confident do you now feel communicating science to lay audience (after creating the podcast)?'.

Staff reflections

Four research supervisors were involved in the marking of the podcasts. Reflections on the learning outcomes of the podcasts and marking process were written separately by each supervisor and were discussed during a team meeting to generate an overall summary.

Reflections on learning outcomes

Regarding the learning outcomes, supervisors identified both strengths and challenges. One commonly identified strength was the *development of science communication skills: 'As scientists are often criticized for failing to discern the difference between jargon and everyday language, I found that students were learning an incredible skill for their future. Many of them succeeded in making their research projects accessible to the public (Supervisor 4)'; 'They were able to gain confidence in this area, to be clear and concise and also engaging (Supervisor 2)'*. Supervisors also agreed that the podcast allowed students to recognise the importance of communicating complex/specialist information in a way that is accessible to the general population '*I think it was very helpful in highlighting to students to the fact that there are different levels of engagement and readership with scientific research and it's important to consider the audience when communicating research. I was pleased when, in another seminar, a student asked about what audience should be considered for a piece of writing (Supervisor 3)'*.

Students were able to reflect on the *importance of sharing their research* with the public and that research does not take place in a restricted academic environment *'Being able to convey their projects in layman's terms allowed the students to recognise the importance of communicating complex/specialist information in a way that is accessible to the general population and tailored to a specific audience (Supervisor 1)'*. Another staff member highlighted the importance of reflecting on how to share their research: *'I believe students were able to reflect critically on their research while thinking on how other people outside of the field might perceive it and on how to express their ideas (Supervisor 4)'*.

Understanding the importance of sharing their research provided students with an opportunity to understand that applied research needs to be made available so that it can generate an *impact*, for example, to service users, and that science communication is

necessary and something that needs adaptation depending on the target audience: *'Students were able to reflect on the importance of sharing the results of their research with the general public and that research doesn't take place in a vacuum. Applied research needs to be made available so that it can impact, for example, service users (Supervisor 1)'; 'Science communication being necessary and something that adapts depending on the audience (Supervisor 2)'*. Students were encouraged to pick out key factors that make their study relatable to others to capture others' interest and attention, as well as provoke an empathic response: *'The assignment thought to pick out key factors and also those that make their study relatable to others; to provoke an empathic response/capture others' interest (Supervisor 3)'*.. Also, the opportunity to create a narrative for a lay audience allowed them to have a *new perspective* on their projects and deepen their understanding of project-related issues in order to be in a position to explain those to others. Overall, students were encouraged to develop communication/presentation skills and to think more openly about their own delivery style, which can be transferable to other situations and settings.

A further strength was for students to have the opportunity to develop a *clearer understanding of their own projects* when still at an early stage: *'A corollary of this was that they needed to develop a clear understanding of their individual projects when some students were still at an early stage. Particularly the rationale for their study. In order to relate complex information simply, it's necessary to have a clear understanding (Supervisor 2)'*.

This was further strengthened by the possibility of *receiving constructive feedback* from the research team in order to develop and improve these skills and to think critically about them at an early stage: *'It helped them to provide early constructive feedback to develop and improve their projects (Supervisor 1)'; 'The possibility of providing early feedback surely will help students to better understand their gaps and the direction their research should take (Supervisor 3)'; 'As supervisors we were able to assess student's knowledge in advance and provide valuable feedback at an early stage of the project (supervisor 4)'*.

Another common strength in the learning outcomes of the podcast was its ability to recognise and promote *diversity and inclusion*: '*The novel nature of the assessment allowed us to assess different skills than those we usually assess allowing for more diversity and inclusion (Supervisor 4)'*. This was especially highlighted for non-native English speakers: *'Also, I think the possibility to pre-record the podcasts gave plenty of space to have feedback in advance of submission to minimise the disadvantage of being a non. English native speaker (Supervisor 1)'*. It was noted that, in an educational system where students are mainly assessed on their written skills through essays and exams, the nature of this assignment allowed students who are creative and good at oral communication to receive formal recognition and for those who need to develop these skills, the opportunity to enhance them: *'Some people are naturally better at this/have more engaging communications styles but others can improve (Supervisor 1)'; 'I think the nature of the assignment allowed students who are creative and good at oral communication to shine and those who are not a chance to improve their skills (Supervisor 3)'*. Overall, the podcast assessment allowed students to demonstrate their learning in a novel way which reduced the risk of being disadvantaged by the extensive use of a particular form of assessment (e.g. essay, exam).

Despite these positive aspects, some challenges were identified. First, the assessment created some anxiety among students due to a *lack of familiarity with the forma*t: '*The*

podcast created some anxiety around an unknown format (Supervisor 1)'. This concern was also related to the stage of their projects: *'Some students were anxious as not familiar with the assessment and were more concerned about the fact that they did not have complete information about their project at that stage or results to present, rather than engaging in how to present their idea. I believe an area of improvement would be to have clearer guidance on what we were expecting and providing some examples (Supervisor 4)'*. Furthermore, it became apparent that some students were not able to *translate the skills* delivered in the workshop into the podcast (e.g. some podcasts were not engaging and creative and still used jargon to describe their research): *'Some students weren't able to translate the skills delivered in the workshop into the podcast [. . .]. I think the presentation workshop which provided training of relevant skills was not fully appreciated/utilised by some students (Supervisor 1)'*.

Another barrier identified was the possibility that the assessment could be perceived as more challenging for students who are less confident with public speaking and/or non-native English speakers: *'I do however, think it could be a challenge for students who are less confident with public speaking or non-native speakers (Supervisor 3)'*. However, this challenge was mitigated by allowing students to practice their podcast and having students record the podcast in their own time and space, rather than doing a live presentation.

Reflection on marking

Overall, markers perceived the marking to be straightforward and found the clear marking criteria to be helpful, which resulted in high inter-marker reliability *"Marking was consistent between marking pairs demonstrating the efficacy of the marking criteria (Supervisor 1); "The marking criteria was clear, and I was able to use it effectively (Supervisor 3), 'Clear marking criteria created specifically for this format (Supervisor 4)'*. The *length* of the podcast (10 minutes) was considered appropriate for marking purposes: *'The length of the podcast was good for marking and to explain their research (Supervisor 1)'*. Furthermore, the fact that the podcasts were *recorded* allowed the markers to have the option to listen to the podcasts several times to ensure nothing was missed. '*It was relatively quick to mark and helpful to be able to listen again to check the marking (Supervisor 2)'; 'It was good to have the option to listen to the podcasts several times to ensure nothing was missed (Supervisor 3)'; 'Having the recording of the podcast facilitated the marking process. I was able to re-play certain parts and focus on the task (Supervisor 4)'* Additionally, since the research supervisor was the first marker on each podcast, supervisors were able to assess the student's understanding of their project and identify any gaps at an early stage: *'As a supervisor, I was able to assess the student's understanding of their project and any gaps (Supervisor 1)'*. Challenges were highlighted in relation to the difficulty of *marking students' creativity* (assessed as engaging and original presentations) as there was variation in how 'creativity' was perceived (e.g. unsuccessful attempt to be creative vs. no creativity at all): '*There was a lot of variation in the "creativity" in the assignment, some of which was more effective than others. This was sometimes tricky to mark and to appreciate that there was an attempt to be creative vs. no creativity at all. If this is highly valued, I think it could possibly help to clarify this in the engagement area of the assignment/marking criteria (Supervisor 3)'; 'Another barrier is creativity, as podcasts have a good element of creativity some students found it easier than others to complete the assignment, I think more guidelines on how to assess creativity for supervisors and more strategies for students are needed (Supervisor 4)'*.

Discussion

With this study, we aimed to evaluate the effectiveness of a novel assessment introduced as part of the MSc in Early Child Development and Clinical Applications (UCL and AFNCCF) using both students' feedback and staff reflections. Specifically, we collected students' feedback and staff reflections on how the podcast and workshop helped the students develop their communication and presentation skills, as well as outlined suggestions for improvements and pedagogical reflections. Overall, our results show that the majority of the students perceived the workshop as useful in preparing them for the podcast assessment and that the podcast provided them with useful skills for science communication. However, some areas of improvement emerged for future implementation. Staff reflections echoed students' feedback and pointed to future areas and strategies for improvements.

Regarding students' feedback, the vast majority of students reported feeling confident in communicating science to lay audiences after creating the podcast (very confident or somewhat confident) in line with previous studies using podcasts as a form of assessment (Hopkins, 2012; Wakefield et al., 2022). Despite this positive feedback, the written feedback from four students was more negative, reflecting a more difficult experience, and providing useful points for improvements. Overall, the comments pointed to the need for more guidance on how to create a podcast, difficulties in understanding what was meant by lay language and the timing of the assignment that was considered to take place too early in the course of the programme of study. One possible solution would be to include formative feedback as part of the module as these have been extensively proven helpful in enhancing students learning experience and performance (Baughan, 2020; Morris et al., 2021). As podcasts usually include interactive strategies (e.g. interviews, discussions, and sharing of opinions; MacKenzie, 2019), another possible way of mitigating the challenges of creating a podcast could be to allow students to include peers in their podcasts to allow a more realistic experience as done in previous similar studies (Hopkins, 2012; Wakefield et al., 2022). Some of these aspects also emerged in the staff reflections and were discussed and elaborated on from a learning outcome perspective.

Staff reflections point to both strengths and weaknesses of the assignment's learning objective. First, podcasts were perceived as an effective tool to develop students' skills by promoting deeper learning and engagement of the module's content as outlined by other studies (Conroy & Kidd, 2022, König, 2020; McGarr, 2009; Pegrum et al., 2015). Overall, it was agreed that the podcast helped students understand the importance of communicating and sharing their research in an accessible way so that it can promote an impact. Another important strength discussed in the staff reflections is that the podcast allowed students to have a clearer understanding and a new perspective on their own projects when still at a very early stage. Despite this being perceived negatively by a few of the students, supervisors felt the early timing of the podcast offered a good opportunity for familiarising themselves with their projects and identifying gaps and/or issues by receiving early feedback from supervisors. A possible solution to deal with this is to ensure that students understand that the focus of the assignment is on how they communicate their work and make it accessible, regardless of the current stage of their project. A further strength of the assessment was the possibility of creating a different form of evaluation compared to what is commonly used (e.g. exams, essays), allowing the possibility to

assess students in diverse skills, which has been proven to benefit students' engagement and empowerment (O'Neill & Padden, 2021).

Staff members further reflected on the fact that the novel and unknown format of the assignment generated anxiety in our students. However, it was noted that providing a too-detailed description of how to create a podcast could have limited students' creativity. A solution would be to provide weekly examples of podcasts as well as some discussions to reflect on the podcast's engagement strategies and use of lay language to minimise the feeling of anxiety about the assessment. Receiving formative feedback might also help in mitigating test anxiety (Ismail et al., 2022). The fact that some of the students were not able to translate the skills delivered in the workshop into the podcast demonstrated that more work is needed to make clear the purpose of the workshop. For instance, it needs to be made clear that the workshop teaches transferable communication skills that can be applied in the podcast.

Regarding the marking, it was noted that the opportunity to listen to the recording as many times as needed allowed staff to better assess students' work. Further, the length of the podcast was perceived as appropriate both in terms of providing space for the students' presentations and for marking purposes and matched the length used in other similar studies (Hopkins, 2012; Wakefield et al., 2022). Lastly, the podcast provided an opportunity to provide an early assessment of the student's knowledge of the project as well as identify any gaps in order to provide timely feedback and the possibility for improvements (Lizzio & Wilson, 2008). One aspect that was highlighted was the use of creativity and how to assess this fairly. More specific guidelines for markers to clarify this aspect are needed. For instance, elements of public engagements should be considered as an element of creativity (e.g. use of interviews, sounds, storytelling etc.) (MacKenzie, 2019).

Overall, students would benefit from additional support in preparing the podcast (e.g. an additional workshop that describes specific information on how to create a podcast, weekly podcast examples etc.) as well as more tailored support including discussions and reflections on podcast materials and communication/engagement strategies for a lay audience, formative feedback and peer-work. Providing these additional resources could help overcome students' insecurities and allow them to focus more on learning to communicate their research projects in an engaging and accessible way. Staff should consider preparing such additional materials as well as clearer marking schemes for the creativity element when planning to use podcast assessments for science communication.

Some limitations need to be noted in this research. First, there was a small number of student responses to the open-ended feedback question. Having more responses would have helped to generate a better understanding of their perceptions from both positive and negative points of view and also provide further inspiration for improvements. However, it is to be noted that the perception of learning does not always correlate with learning itself (Persky et al., 2020). As such, future studies include a bigger sample and include students' outcomes in their analyses to better explore this aspect. Second, despite staff members adopted a reflexive approach to mitigate the potential impact of their affiliation to the course in the reflective process, the fact that reflections were written by staff members who were directly involved in the delivery of the workshop and marking of the assessments might have included an element of bias. To overcome this aspect, future investigations should include

reflections from independent staff members to achieve a higher level of trustworthiness. Third, students' feedback was collected after students received their marks and, even though all students passed the assessment, this might have introduced some bias in their feedback, especially from those students whose marks did not reflect their expectations. Future investigations should collect students' reflections and feedback on the assessment before and after the marking process to assess if students' perception of the usefulness/effectiveness of the assessment changes in light of the mark received. Fourth, this investigation only applies to one student cohort and cannot, therefore, generalise to students enrolled in different courses. A future investigation including students from different disciplines would better inform about the effectiveness of this form of assessment more widely.

Overall, based on the student and staff experiences, using the podcast as an assessment tool was effective in providing students with communication skills that are effective beyond the academic environment. We further identified potential adjustments to improve the learning experience of students to enhance their communication skills in the future to be used for their development as future researchers and clinicians.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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