

Introducing a podcast as a networked intervention to support first-year students' transition into higher education: A design-based research approach

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Abstract

This paper reports on a first-cycle educational design research study that examines a teacher-led podcast as an intervention to support first-year students' transition into higher education. Motivated by documented early vulnerabilities and their association with withdrawal, the study investigates whether a podcast can scaffold belonging, clarify expectations, and provide early guidance during the initial phase of study. The networked learning intervention—The Behavioural Science Pod—comprised five semi-structured, dialogical episodes hosted by programme teachers and distributed via the learning management system. Drawing on the Communities of Inquiry framework, the podcast was designed to engage social, teaching, and cognitive presence. Two instruments were used to evaluate the artefact: a survey (n=35) and a focus-group (n=5) interview were used to capture both broad patterns and deeper experiences. Open-ended responses from both datasets were thematically analysed. Findings converged around four themes: usage patterns, perceived benefits, pedagogical value, and areas for improvement. A clear usage pattern emerged: just over half of respondents engaged with the podcast at least once—an uptake exceeding that reported in earlier comparable initiatives. Non-listening was attributed to both internal (e.g., lack of preference for the medium, forgetfulness, no perceived need) and external (time constraints) aspects, underscoring that podcasts are not a one-size-fits-all solution. For listeners, the primary point of use was the very start of studies, a period consistently described as uncertain and emotionally demanding. In this context, the podcast acted as a supportive networked resource that offered orientation, reassurance, and practical strategies while conveying presence and trust through its conversational tone. Students highlighted relational benefits (a felt closeness to teachers; a sense of “being part of the conversation”) alongside cognitive support, with episodes on navigating course literature and working in study groups repeatedly singled out as especially helpful. Interpreted through the Communities of Inquiry lens, the podcast fostered social presence, strengthened teaching presence, and enabled meaning-making indicative of cognitive presence. At the same time, students identified important areas for improvement: wider distribution, provision of transcripts or textual summaries for accessibility and navigation, more episodes and stronger curricular integration—potentially making selected episodes compulsory. Overall, the study demonstrates that a carefully designed podcast can provide low-threshold, multidimensional networked support for first-year students' transition, while also revealing design constraints and inclusion requirements. The paper contributes practical design rationales and a theoretically informed account of podcasting's affordances and limitations, and it outlines a forthcoming study that will examine a podcast as the primary medium for an entire course.

Keywords

Design-based research, dropout, first-year students, higher education, podcast

Introduction

This paper examines how a teacher-led podcast can support first-year students' transition into higher education. It explores how a podcast can function as a didactic tool that intends to scaffold belonging, clarify expectations, and provide early guidance. Earlier studies of podcasts indicate a potential for such tools to play a central role in supporting students' transition into higher education (e.g., Muffels & Van Weyenberg, 2024). This study, therefore, positions podcasts within a broader pedagogical agenda of supporting first-year students in their

transition to higher education. The focus is not only on cognitive outcomes but also on the social and emotional dimensions of learning that underpin student belonging and identity formation. The rationale is straightforward: when guidance, modelling of expectations, and opportunities for participation are embedded in the pedagogical design, institutions can strengthen academic integration and belonging — features repeatedly associated with persistence and reduced dropout (Piepenburg & Beckmann, 2022).

From earlier studies of student dropout in higher education, it is known that transitional pressures of becoming a student are reflected in patterns of withdrawal. Prior analyses show that dropout is a multidimensional phenomenon and often emerges from a complex interplay between students' prior preparedness, their experiences of teaching and learning, and their perceptions of fit within the academic cultures of higher education (Beer & Lawson, 2017; Piepenburg & Beckmann, 2022). In the Swedish context, national reports indicate that most withdrawals occur during the first year (UKÄ, 2022). It seems that early vulnerability is particularly evident among students navigating unfamiliar academic norms (Geisler et al., 2023). Against this backdrop, interventions that address belonging, clarity of expectations, and early guidance are salient to mitigating dropout risk.

Research has described students' first year of university as a particularly sensitive stage of their higher education journey. They often find themselves in a liminal state, not fully integrated into the academic world, in their endeavour to become a university student (Gourlay, 2009; Palmer et al., 2009). Such challenges are not simply individual but deeply relational, shaped by networked aspects such as students' interplay with peers, teachers, and institutional structures (Christie et al., 2008). Additionally, contemporary higher education is characterised by increasing diversity, as students from a wide range of backgrounds and with varying levels of prior experience and academic preparation enter universities (Biggs et al., 2022; Reber & Smith, 2023). While this diversity enriches the academia, it also brings challenges. Students' unequal preparedness at entry often translates into uneven academic performance (Reber & Smith, 2023) and, for many, difficulties in adapting to the demands of higher education (Cameron & Rideout, 2022). Entering university is not only an academic endeavour but also a social and emotional transformation. Becoming a student involves negotiating a new identity and adapting to unfamiliar expectations, norms, and practices (Groves & O'Shea, 2019). This transition is also associated with insecurity, uncertainty, and challenges (Palmer et al., 2009). For first-generation students in particular, the process of entering higher education is marked by challenges such as lack of confidence in academic literacy, anxiety about performance, and feelings of exclusion from the university culture (Christie et al., 2008; Watts et al., 2023). Thus, becoming a student is both an identity project and a collective process, involving social, cognitive, and emotional dimensions, where the teacher carries an important responsibility: to provide opportunities and spaces that encourage self-development as an integral part of students' studies, thereby supporting the construction of their emerging academic identities (e.g., Shpigelman et al., 2022). Universities, therefore, have a crucial role in facilitating smoother transitions. Research has emphasised the value of creating opportunities for belonging and participation in academic communities, both socially and pedagogically (Gourlay, 2009; Shpigelman et al., 2022). Such support is particularly vital for first-year students, for whom the lack of academic preparedness or familiarity with university norms can otherwise become a substantial barrier to learning (Reber & Smith, 2023). Teachers play a crucial role by providing not only knowledge but also spaces that foster identity development, confidence, and engagement (Shpigelman et al., 2022). In line with these findings, prior work recommends that student support should be offered to all, and especially to first-year cohorts, and that such support be integrated into teaching rather than organised as separate add-ons (e.g., Cameron & Rideout, 2022).

At the same time, digitalisation has introduced new opportunities for supporting students in the early stages of their studies. Networked and digital tools can strengthen both academic integration and the sense of belonging. Podcasts, in particular, have attracted attention as a flexible and accessible networked resource with pedagogical potential (Kendrick et al., 2024). Moreover, previous research suggests that podcasts can foster a sense of community and belonging by creating opportunities for participation and engagement (Kendrick et al., 2024; Yusuf et al., 2023). They can also reduce perceived distance between teachers and students, functioning as an intimate medium that conveys trust and closeness (Cook, 2023; Euritt, 2022). Despite growing use of podcasts in higher education since the early 2000s, there is still relatively little research on their pedagogical effectiveness. As Moore (2022) notes, much remains to be understood about how podcasts can be designed and integrated as meaningful learning resources.

While networked and digital tools are not a panacea for withdrawal, the affordances associated with podcasting—reduced transactional distance, strengthened teacher presence, and scaffolding of expectations—speak directly to established determinants of persistence. By supporting early belonging and clarifying the demands of study, podcasts may address antecedents to dropout identified in earlier work (Beer & Lawson, 2017; Piepenburg & Beckmann, 2022) even if causal effects on completion rates are beyond the scope of the present study.

Against this background this study explores the affordances and limitations of podcasts to support the process of becoming a student, and shed light on how networked and digital tools such as podcasts can be integrated into teaching practices in ways that extend beyond information delivery, to include presence, belonging, and community. In doing so, the study contributes to ongoing discussions in higher education pedagogy about how institutions can respond to increasingly diverse student populations.

The aim of this study was to explore how a teacher-led podcast can support students' transition into higher education during the initial stages of their studies. The study was guided by the following research questions:

- How can podcasts be designed, produced, and integrated into higher educational settings?
- How do higher education students perceive the role of a podcast in establishing a community of inquiry?
- How do higher education students experience a podcast as a means of addressing perceived challenges at the beginning of their studies?

Previous research

The use of podcasts in higher education has been examined from a variety of perspectives over the past two decades, most commonly either as recordings of full or partial lectures or as supplementary resources to support existing teaching (Besser et al., 2022). In several early cases, podcasts provided optional content rather than required material. For instance, a study conducted in South Africa employed podcasts in distance education as additional resources in an accounting course (De Hart & Wentzel, 2020). Similarly, a large-scale study of 340 first-year IT students at British university introduced podcasts to aid students who struggled with the transition from secondary school to university (I & Dyson, 2008). Similar approaches have shown that students value podcasts as a non-mandatory complement to their studies (Skadorwa, 2022). More recent initiatives have experimented with podcasts as the primary networked and digital resource for entire courses, such as a podcast-based distance course at a Swedish university, which students welcomed as a flexible form of learning (Wärnestål & Sjöberg, 2020).

Research shows that European students often report high levels of satisfaction with the use of podcasts in higher education, often describing them as useful and motivating. In nursing programmes, podcasts integrated with the Communities of Inquiry framework were found particularly positive regarding teaching and cognitive presence, although perceptions of social presence varied. Nevertheless, the combination of podcasts and CoI design was seen as successful overall, with podcasts recognised as effective in stimulating and fostering communities of inquiry (Yusuf et al., 2023). Although podcast listening is usually asynchronous and individual, students often describe it as a "shared experience" that enhances belonging (Riddell et al., 2020). Podcasts are also often regarded as more approachable and less demanding than traditional study resources, offering a conversational format that presents processed content in contrast to the density of course literature (Riddell et al., 2020). Importantly, such resources are particularly valued by non-traditional students, who may find them more accessible than other academic materials (Gachago et al., 2016). In a study of medical students in clinical training, podcasts were found to strengthen students' sense of belonging to a learning community. They also alleviated feelings of academic insecurity by allowing students to keep up with study material while engaged in other tasks, thus reducing anxiety about falling behind (Riddell et al., 2020). In contrast, another study from South Africa revealed that students combined listening with active note-taking, illustrating variation in how podcasts are integrated into study practices (Gachago et al., 2016). Podcasts are widely recognised as a flexible networked tool, enabling learning independent of time and place (Gachago et al., 2016; Kendrick et al., 2024; Wärnestål & Sjöberg, 2020). Nonetheless, empirical findings show that students do not always use mobile phones for listening, but often rely on laptops or desktop computers. This suggests that while smartphones are ubiquitous, they are not yet fully integrated into study practices, as many students continue to associate them primarily with entertainment rather than learning (De Hart & Wentzel, 2020).

The advantages reported above intersect with determinants of persistence: reduced isolation, clearer expectations, and early scaffolding are repeatedly linked to students' continuation in their programmes. Conversely, when such supports are absent, first-year challenges can crystallise into disengagement and withdrawal (UKÄ, 2022). The literature therefore positions podcasting not as a replacement for other resources but as a complementary means of reinforcing conditions associated with lower dropout risk.

Research highlights multiple advantages of podcasts. They increase flexibility by allowing learning at any time and place (Gachago et al., 2016; Kendrick et al., 2024; Wärnestål & Sjöberg, 2020), provide opportunities to revisit material, and align with mobile lifestyles (Besser et al., 2022). Importantly, podcasts can address

shortcomings of text-based communication in distance education, conveying relational and affective elements such as tone and rhythm that written formats lack (Garrison, 2016). Even as asynchronous one-way communication, podcasts can make complex content feel dialogical (Kendrick et al., 2024), strengthen motivation, reduce isolation, and foster collaboration among students (Kendrick et al., 2024). Nevertheless, challenges remain. Podcasts exclude students with hearing impairments unless transcripts are provided (Evans et al., 2020), and institutions cannot assume equal access to devices or internet connectivity (Gachago et al., 2016). Its asynchronous and non-dialogical nature may limit feedback opportunities (I & Dyson, 2008). Risks of passive listening and surface learning have also been noted (Riddell et al., 2020; Moore, 2022), while teachers may face increased workload and technical barriers in production (Evans et al., 2020).

In summary, podcasts should not be seen as a replacement for other resources, but rather as a complementary networked and digital tool with distinct strengths in accessibility, flexibility, and the capacity to create a sense of presence and belonging (Gachago et al., 2016; Kendrick et al., 2024). Prior research demonstrates their potential to reduce feelings of isolation, foster community, and offer reassurance in moments of academic uncertainty (Riddell et al., 2020; Yusuf et al., 2023). These features are particularly valuable for first-year and non-traditional students, whose early encounters with higher education are often marked by insecurity, lack of confidence, and fragile senses of belonging (Christie et al., 2008; Groves & O’Shea, 2019; Watts et al., 2023). Taken together, the findings suggest that podcasts hold significant potential as a supportive networked resource in students’ process of becoming learners - helping to bridge the transition into academic life by reinforcing engagement, identity formation, and participation in emerging learning communities.

Rationale for the Artefact

As discussed earlier, podcasts represent a flexible, accessible and networked tool that can strengthen belonging and support learning, particularly for students in transitional phases of their studies (Kendrick et al., 2024; Yusuf et al., 2023). In this study, the intervention, in line with design-based research (Johannesson & Perjons, 2021; McKenney & Reeves, 2019), took the form of a teacher-led podcast. The choice of podcast as the artefact to be designed method was grounded in both prior research and the characteristics of the study’s target group — first-year students in the Behavioural Science programme at Anonymous University. The podcast was designed not as a replacement for existing teaching or written course information, but as a supplementary networked resource intended to provide early relational and pedagogical scaffolding during the transition into university study.

The podcast was designed through a structured process drawing on established handbooks and models (Cook, 2023; Nuzum, 2019). Particular inspiration was taken from the ten-factor model developed within the IMPALA project (Edirisingha et al., 2008). The guiding pedagogical idea was to create a networked resource that could support students’ transition into higher education by addressing recurring questions and challenges that arise in the first semester. The podcast adopted a semi-structured, dialogical format, with conversations between programme teachers. Episode length varied between 15 and 30 minutes, aligning with recommendations in prior research (Kendrick et al., 2024). Content was designed to be reusable across cohorts by avoiding time-bound details such as specific dates or ephemeral information. To ensure accessibility, all episodes were uploaded to the learning management system, where they could either be streamed or downloaded.

The final product, titled *The Behavioural Science Pod*, consisted of five episodes and an introductory teaser. Each episode addressed a theme central to the early student experience, such as navigating distance education, working in study groups, engaging with course literature, understanding course evaluation, and developing academic writing. The conversations were designed to be both informative and supportive, providing students with practical guidance while also fostering a sense of belonging and presence in the programme community.

Positioned in this way, the artefact responds to features repeatedly associated with early withdrawal — unclear expectations, weak academic integration, and limited sense of belonging — by offering accessible guidance and teacher presence at the point of highest vulnerability.

Theoretical Framework

This study employs the *Communities of Inquiry* (CoI) framework as its primary theoretical foundation. The framework is particularly suitable for capturing the pedagogical qualities of podcasts in higher education, as it provides a lens through which learning processes can be examined not only in terms of content delivery but also in relation to the networked and social dimensions of learning, which are central to podcasting.

The CoI framework, originally articulated by Garrison, Anderson, and Archer (1999), is rooted in John Dewey's philosophy of pragmatism and Lev Vygotsky's social constructivist theory. It was designed to address the needs of contemporary education and emphasises the importance of community, dialogue, and reflection in learning processes (Garrison & Vaughan, 2008; Garrison, 2016). Learning, from this perspective, cannot occur in isolation but is always a collaborative endeavour, including interplay between learners entangled in social and physical configurations (Garrison, 2016). At its core, the CoI framework identifies collaboration between students as the central mechanism of learning. A successful community of inquiry is characterised by respectful dialogue, mutual exploration of ideas, and the capacity of students to challenge one another's assumptions while offering support in the formulation of shared understandings (Vaughan et al., 2013). The model integrates three interrelated forms of presence that together enable deep and engaging learning: cognitive presence, social presence, and teaching presence. Cognitive presence refers to the extent to which students can construct and confirm meaning through reflection and discourse. Social presence captures the ability of students to present themselves as "real people" in mediated communication, thereby fostering trust and openness. Teaching presence, finally, encompasses the design, facilitation, and direction of the educational experience, ensuring both structure and support (Garrison et al., 1999).

In the context of this study, the CoI framework is particularly valuable as it highlights the nature of participating in education supported by digital technologies and aligns with the affordances of podcasting as a networked and digital resource. By engaging all three forms of presence, the artefact — a teacher-led podcast — is positioned not merely as a channel for knowledge transmission but as a networked means of cultivating a sense of belonging, shared inquiry, and academic community among students

Method

This study applies educational design research (EDR) as its methodological approach. EDR can be defined as a research approach where practical problems are addressed through iterative solutions, which are then empirically investigated to provide both theoretical and practical insights that may be transferable to other contexts (Johannesson & Perjons, 2021). The iterative process aims for gradual improvement through feedback and revision (Vaughan, 2019). Such cyclicality is a hallmark of design research, where a solution is developed, tested, evaluated, and refined across multiple cycles (Johannesson & Perjons, 2021). Due to time and scope limitations, this study represents only a first cycle, or iteration. Design research is often grounded in a practice, where the identified problem constitutes a gap between the current and desired situation (Johannesson & Perjons, 2021). Unlike most educational research, which describes or evaluates education in terms of what is or was, design research focuses on what can or ought to be (Bakker, 2018). Its dual ambition is both to address authentic educational challenges and to generate theoretical insights that contribute to the wider field (McKenney & Reeves, 2019). In this study, the artefact — a podcast designed to support first-year students — constituted the intervention.

Two instruments were employed for data collection: a survey and a focus group interview. The survey provided an overview of students' use and perceptions of the artefact, while the focus group enabled deeper exploration of emerging themes (Gray, 2021). Using multiple methods in a complementary fashion allowed different and overlapping aspects of the phenomenon to be captured, thereby enhancing validity (Bryman, 2016).

The survey was used to measure the extent of podcast usage, reasons for non-use, and general experiences of the artefact (Denscombe, 2021; McKenney & Reeves, 2019). This standardised instrument was particularly suited for identifying broad patterns. In turn, the focus group interview, semi-structured and networked in nature, facilitated a collective discussion of students' experiences and allowed respondents to articulate perspectives that may be more difficult to express individually (Kvale & Brinkmann, 2015).

The survey targeted the entire population of 72 students enrolled in the introductory course of the Behavioural Science programme. The survey was distributed via the learning management system, and participation was anonymous and voluntary. A total of 35 students responded. For the focus group, all students who had listened to the podcast were invited, again via the learning management system. Five students participated, of whom one had previous university experience, while the others were newcomers to higher education. The survey was conducted online and consisted of six questions, distributed via the learning management system. Respondents were encouraged to participate regardless of whether they had listened to the podcast. The focus group interview was subsequently carried out with the five volunteers. It followed a semi-structured guide with thematic prompts, while allowing for flexibility and improvisation to create a more natural dialogue (Gray, 2021; Kvale &

Brinkmann, 2015). The interview was audio-recorded, then transcribed, and no notes were taken during the session.

The qualitative material was analysed using thematic analysis (Gray, 2021) and followed Gray's six-step procedure, beginning with verbatim transcription of the focus group interview. The transcript was read multiple times, with coding conducted in NVivo. Codes were inductively generated to capture salient ideas, which were then grouped into categories and broader themes (Bell & Waters, 2018). The open survey responses were analysed using the same coding scheme, resulting in four themes from the survey and twelve from the interview.

Findings

The evaluation of the podcast drew on both datasets. Across these sources, students' experiences converged around four themes: usage patterns, perceived benefits, pedagogical value, and areas for improvement.

A clear pattern of usage emerged, showing that just over half of the participants engaged with the podcast at least once. This figure is higher than the 37% reported in earlier studies of similar initiatives (I & Dyson, 2008), suggesting a relatively strong uptake in this case. At the same time, the results highlight that a significant proportion of students did not listen. Their reasons reflect both internal and external aspects: lack of preference for the medium, forgetfulness, or absence of perceived need can be understood as internal barriers, while time constraints represent external ones. As one student put it, "I meant to listen, but it kept slipping down the list — there was just so much else to do at the start".

The results also revealed several perceived benefits. For those who listened, the podcast was primarily used at the very start of their studies, a period consistently described as uncertain, stressful, and emotionally demanding. Students reported nervousness and anxiety in adapting to their new role, confirming earlier research that identifies the first semester as a liminal stage marked by insecurity and identity negotiation. One participant described the podcast as "a voice that told me it's okay to not know everything yet", while another noted, "it made me feel calmer, like someone understood what it's like to start from scratch". In this context, the podcast functioned as a supportive resource, easing the transition into higher education. It provided orientation, reassurance, and practical strategies, while also conveying presence and trust through its conversational tone.

Students also emphasised the pedagogical value of the podcast. A central outcome was the relational value attributed to the podcast. Students consistently described feelings of closeness and recognition, and even of "being part of the conversation", which fostered a sense of belonging. One participant reflected, "it felt like the teachers were talking to us, not at us — like we were included in the room". Two episodes were repeatedly highlighted as especially valuable: the one addressing course literature and the one discussing study groups. The first supported students in navigating extensive and confusing reading demands, a recurring theme in their early experiences: "The episode about reading made me realise I wasn't the only one struggling with the amount of text". The second provided strategies for managing group work, which many students regarded with apprehension: "The one about study groups helped a lot — I had dreaded it, but after listening, I knew how to approach it better". In both cases, the podcast enabled reflection and meaning-making in areas central to the students' learning process.

At the same time, the evaluation revealed areas of improvement through challenges and limitations of the podcast. Accessibility was a recurring theme: students wished for distribution through commercial podcast platforms, rather than restricting access to Moodle, and expressed a desire for transcripts or textual descriptions to facilitate navigation and ensure inclusivity. One participant stated, "it would've been easier if it was on Spotify". Many requested more episodes, including content on study techniques, examinations, digital tools, career perspectives, and even insights into teachers' professional practices. Some students proposed making certain episodes compulsory, particularly the one on study groups.

Discussion

Taken together, the study highlights both the promise and the trade-offs of podcasts as a networked pedagogical artefact/intervention in higher education. On the one hand, they offer flexibility, accessibility, and affective value that can support first-year students in their transition, particularly by fostering belonging, trust, and academic identity. On the other hand, their effectiveness depends on careful attention to inclusivity, integration, and design. The podcast in this study was not universally embraced, nor did it eliminate the challenges of student transition. Yet for many, it provided meaningful support at a critical stage of their academic journey, illustrating how networked and digital resources, when thoughtfully designed, can complement existing teaching practices and

strengthen the process of becoming a student. These findings resonate with prior research showing that podcasts can reduce perceived distance in teacher-student relations (Cook, 2023; Euritt, 2022).

Interpreted through the Communities of Inquiry lens, the podcast contributed to social presence by enabling students to feel connected both to teachers and to the learning community. This also suggests that podcasts may activate social presence in a particular way. Unlike many CoI-studies focused on interactive discussion forums, this intervention was largely asynchronous and one-directional. Yet, students still reported strong relational closeness and reassurance. This indicates that social presence may emerge not only through peer-to-peer interplay, but also through mediated intimacy and teacher voice. In this sense, the podcast format nuances the CoI framework by highlighting how teaching presence can function as a catalyst for social presence even in the absence of direct dialogue. At the same time, the episodes' dialogical style and semi-structured design can be interpreted as enhancing teaching presence, where the teachers actively mediated the students' participation in the community and scaffolded their expectations. The results also point to a mechanism in which teaching presence operated as the initial driver: by providing structure, guidance, and a supportive tone, the podcast reduced uncertainty and created emotional safety. This, in turn, enabled students to experience social presence as closeness and belonging. That relational grounding then supported cognitive presence, as students felt more able to engage with challenging academic tasks such as navigating course literature or participating in study groups. In this way, the podcast supported the construction of academic identity by offering students a framework for understanding their role, expectations, and group membership (Shpigelman et al., 2022). Rather than functioning as separate dimensions, the presences appeared interdependent: teaching presence shaped the conditions for social presence, and together they supported the reflective meaning-making associated with cognitive presence.

Alongside this, findings underscore the notion that podcasts, while accessible and networked, are not universally adopted and should not be considered a one-size-fits-all solution, in line with previous research (Moore, 2022). The accessibility critique is substantive on both pedagogical and compliance grounds. Requests for transcripts and wider distribution reflect known constraints of audio-only resources in higher education (Evans et al., 2020; Gachago et al., 2016). These concerns are significant not only from a usability perspective but also in light of legal requirements for accessibility in higher education. The lack of transcripts in particular represents a limitation, potentially excluding students with hearing impairments. Providing transcripts (and concise episode summaries) would broaden inclusion, support selective re-listening, and address students' navigation needs identified in the data. Distribution beyond the LMS (e.g., via RSS) could improve convenience, even as it requires institutional consideration of scope and audience, as your text notes. Moreover, a minority of respondents expressed disinterest in podcasts as a medium altogether, underscoring the importance of acknowledging that such networked resources cannot meet all students' needs equally.

Finally, the findings suggest that the podcast provided multidimensional support across social, teaching, and cognitive domains. Respondents described feelings of calm, reassurance, and increased confidence, while also reporting a greater sense of belonging and academic integration. These are important indicators, since previous research shows that belonging and integration are crucial to persistence and retention (Christie et al., 2008; Groves & O'Shea, 2019; Watts et al., 2023). Although the present study cannot determine whether the podcast directly reduced dropout risk, it is reasonable to suggest that such support may have contributed indirectly to lowering vulnerability among new students. Future studies could explore whether podcast engagement relates to patterns of persistence and retention among first-year students, although such effects were beyond the scope of the present design iteration.

Conclusions

This study demonstrates that a teacher-led podcast can serve as a meaningful networked pedagogical intervention to support students' transition into higher education. By combining flexibility and accessibility with relational and emotional dimensions of learning, the podcast contributed to strengthening students' sense of belonging, confidence, and understanding of academic expectations. The findings highlight that even small-scale, low-threshold networked and digital initiatives can play an important role in scaffolding the process of becoming a student when grounded in intentional pedagogical design. At the same time, the study underscores that podcasts are not universally effective and must be complemented by inclusive design practices and careful curricular integration. Taken together, the results provide both theoretical and practical insights into how networked and digital resources can enhance teacher presence and community formation in the early stages of university education, while offering a foundation for further design iterations and expanded use of podcasts as central networked and digital resources.

Future studies

The findings from this first design iteration suggest that teacher-led podcasts hold considerable promise as networked pedagogical artefacts for supporting students' early transition into higher education. However, their affordances and limitations also point to the need for further exploration. Future studies should therefore extend beyond the introductory phase to examine how podcasts can function as an integrated and sustained component of course design. Building on the current results, a forthcoming study will investigate the use of a podcast as the primary medium for an entire course, enabling a more comprehensive examination of how audio-based teaching can shape learning processes, presence, and engagement over time. Such an approach offers an opportunity to explore not only the immediate effects of podcast listening, but also its potential to structure course progression, mediate communication among students and teachers, and foster continuous inquiry across a longer learning trajectory. In doing so, future research will contribute to a deeper understanding of how networked and digital resources can support coherent pedagogical design and cultivate enduring communities of inquiry in higher education.

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