MIND THE GAP: CAN PODCASTS HELP BRIDGE THE DIVIDE BETWEEN EDUCATION RESEARCH AND CLASSROOM PRACTICE?

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ABSTRACT

There exists a significant and consequential divide between educational researchers and education practitioners. The purpose of this persuasive essay is to examine the reasons for this divide through the lenses of attitudes, access, and audience, and argue in favor of a podcast designed for an audience of teachers, based in the Neag School of Education. Drawing on adult learning theory, narrative theory, and comparative international research on teacher demographics and barriers to research engagement, there is evidence that such a podcast could be a valuable tool for synthesizing and communicating research in an accessible and audience-appropriate way, and could be used to support reciprocal and collaborative relationships between researchers and the wider teaching community. I am a former elementary teacher from Scotland in the United Kingdom with 15 years of teaching experience in primarily international contexts. After transitioning into the role of technology integration coach for teachers, I became interested in the difficulties my colleagues and I faced in accessing education research to improve our practice. I went on to co-found a podcast, and began to provide teacher professional development workshops to address a need I perceived for teachers to access and implement evidence-based practices. As such, my position in this essay is informed by my experiences as a teacher, teacher-educator, and podcast creator. While there is a growing body of research on the effectiveness of podcasts as a tool for professional learning in medical education, podcasts as a tool for teacher learning have yet to be studied extensively. This essay contributes to existing literature by synthesizing research on podcast best practices and barriers to teachers' research-engagement, and describing ways in which the Neag School of Education could both contribute to the wider education community, and benefit from the development of an education research podcast.

Keywords: technology-enhanced adult learning, teacher research, teacher-researcher collaboration, science communication

USING PODCASTS TO BRIDGE THE DIVIDE BETWEEN EDUCATION RESEARCH AND CLASSROOM PRACTICE

Teaching is a unique career: vocation and profession; science and art.

The science lies in what we know and understand about how children learn—academically, socially, and emotionally. The art can be seen in how teachers draw on experience, instincts, and relationships to apply that science in real-world situations with large groups of complex individuals who, in an environment that is challenging and dynamic, may feel and behave differently at 10 am than they do at 2 pm. Both teachers and researchers have valuable, complementary knowledge and experience to contribute to the shared goal of improving education for students and teachers. However, although research shows that teachers have generally positive attitudes towards education research and are willing to engage in and with it, most teachers don't regularly or meaningfully draw on research when making decisions about their practice (Nelson et al., 2017), dividing the critical interplay between science and art.

While many aspects of teaching are highly contextualized (e.g., school systems, socio-cultural or political influences, curricula, and much more), in some ways teachers around the world have a great deal in common. The FIT-Choice Scale, a tool for capturing teacher's motivations for entering the career, for example, was originally developed by Watt et al. (2012), and has been replicated and validated across numerous, diverse national contexts. The results consistently show that the majority are motivated to become teachers by their perception that teaching has an intrinsic value, as well as their desires to contribute to society and work with children or young people. For many, in short, teaching is both a vocation–a calling for those who care deeply about children and about education–and a profession that attracts those who value lifelong learning. It may seem surprising, therefore, that despite these motivations, teachers do not engage more actively in and with education research. So, why is this the case, and what can be done about it?

As in other professions, such as medicine or science, the landscape of educational knowledge and practice is always changing. Research is continually conducted, and new ideas are tested in context. However, education differs from these other professions in one very critical way: there is often a fundamental and practical divide between research and practice. In medicine and science, for example, research is often carried out by doctors and scientists, with findings published in papers that are intended to be read and implemented by fellow doctors and scientists. In contrast, the much of the research in education is carried out by researchers for an audience of fellow educational researchers, but the findings are intended to be implemented by a completely separate group of practitioners: teachers.

This divide between researchers and practitioners is extremely problematic. Researchers care deeply about the work they do, and they invest decades of their professional lives into work they hope will make a positive impact on education. When done effectively, education research has the power to guide and advance new, more effective educational approaches as well as to debunk out-of-date information and potentially harmful approaches. However, misconceptions such as the idea that individuals learn better when they receive information in their preferred learning style, or that learners can be 'right-brained' or 'left-brained,' that have been soundly debunked in literature for several

years continue to be endorsed by teachers (Hughes et al., 2021). Likewise, it is generally accepted that the vast majority of teachers care deeply about their students, and that they are committed to their vocation. Yet, in spite of the benefits education research can bring to classroom practice, relatively few engage in or with education research in a consistent or meaningful way (Nelson & Campbell, 2017).

If the application of research findings is viewed as a function of the relationship between communities of education researchers and teachers (Farley-Ripple et al., 2018), the research-practice gap will not be bridged by asking only why teachers don't engage more with education research, or what researchers are doing at the individual level to make their research accessible to teachers. Instead, it will require dialogue and understanding between communities about the needs and strengths each bring with them, and a concerted effort to build systems and structures that support the creation of sustainable and meaningful relationships between research and practice. If those on the research side are to take a proactive and supportive role in this process, we must seek to first understand and appreciate three key factors that influence teachers' research engagement, and then to play an active role in addressing them: attitudes, access, and audience.

ATTITUDES

How teachers and researchers feel about their own and each other's roles, and the nature of research itself, is of key importance to this issue their use of research in practice. The traditional model of education research is largely unidirectional and top down: academics conduct research in and on classrooms, then publish papers about their findings with the presumed expectation that teachers or educational leaders will read them, synthesize the findings, and apply them in the classroom context. This situates teachers in the role of technicians following instructions rather than as partners with a mutual goal and complementary knowledge and skills. While it is by no means the case that all or even most education researchers conceptualize teaching in this way, the debate about what teaching is and should be has continued for decades (Winch, 2004) with little consensus. At the same time, while some academics champion practice-generated teacher research, still others are dismissive of its validity and potential impact (Nelson & Campbell, 2019). Meanwhile, although many teachers report positive attitudes towards research and express willingness to engage in and with it (Nelson et al., 2017), not all are in agreement as to what constitutes authentic research (Shkedi, 1998), and many others are skeptical about its value and relevance in classroom practice (Vanderlinde & van Braak, 2010).

However, those teachers and researchers who agree on both the importance of education research and the need to close the research–practice gap suggest that bridges need to be built between researchers and practitioners to create a more cooperative approach to education research (Vanderlinde & van Braak, 2010). One approach to this is the concept of teacher–researcher partnerships in which teachers and researchers work together on topics of mutual interest to co–create solutions (Simmers, 2021). This approach has gained traction in recent years and with good cause. Teachers are the experts when it comes to their students, and we rely on them to exercise their judgment in adapting and applying research in each highly–individualized classroom context.

However, we can and should think further than individual partnerships between teachers and researchers and more systemically about the relationship between teaching and research. Teachers have a responsibility and a right to engage with, and be engaged in and by, education research. By failing to forge a reciprocal relationship with the teaching community, education research stands to lose a vital opportunity to further education and education research as a whole.

ACCESS

If teachers are to systematically and regularly read and implement education research, they need to be able to access it. There are many factors that make education research inaccessible for teachers, including cost, experience, and support (Rycroft-Smith, 2022).

The traditional model of research dissemination assumes that individual teachers are in a position to digest, translate, and implement a large quantity of highly specific and often conflicting findings into classroom practice. However, most teachers do not turn to journals for information about teaching (Vanderlinde & van Braak, 2010), and, for everyone outside academia, including the majority of teachers, research is expensive to read. Without access to an institutional subscription to journal resources, most published research is hidden behind paywalls and although some research can be found freely through Google Scholar or is published open-access, not all teachers have the knowledge and experience to identify which papers are methodologically sound and/or relevant. Research is also usually written in academic English, which not only excludes teachers from other language backgrounds, but also those who may find the academic writing style excessively difficult or time-consuming to read.

Additionally, in order to draw meaningful understandings from research, teachers need to read many papers, synthesize their findings, and translate those into classroom practice. Not only does this process require a significant investment of time, something that few teachers feel they have enough of (vide infra), but also expertise to identify reliable, high-quality research that is relevant to their specific instructional context.

AUDIENCE

If teachers are to be a regular and engaged audience for education research, it is vital that researchers have a deeper and more nuanced understanding of who comprises that audience and the unique needs and barriers they face. The demographics of teachers, internationally, are another way teachers are more similar than different. The average K-12 teacher in the U.S. is 43 and female (Tai et al., 2019), and this distribution is reflected globally: around 70% of all teachers of this age group are women, reaching 96% in the early education years and 82% in elementary (OECD, 2019). This is relevant because decades of research have shown that women are disproportionately affected by both relative and absolute time poverty. Additionally, around half of all teachers are between the ages of 30 and 49 are likely to be parents, which further drives time poverty (Conway et al., 2021). Further, almost 25% of teachers in the U.S. are considering leaving the profession with stress being the most common reason for doing so (Woo & Steiner, 2021).

Therefore, it is of particular importance that education research should be presented in a way that is easy to access and consume and directly applicable to practice.

Considering these factors as a whole, we are presented with an audience for education research that is chronically time-poor and stressed; who lack the resources, experience, and support to access published research; and who are underrepresented in the broader education research community and process. So, what can we do?

While education research should and can be more democratic in all regards, one major step we can take is to rethink how we communicate and engage with teachers about published research. The traditional model of publishing academic papers in academic journals is appropriate for an audience of academics but not necessarily for teachers. Rather than simply publishing individual papers and hoping that teachers will find, make meaning from, and implement them, teachers need us to take the additional steps of translating a body of research on a topic of teacher-determined interest into clear recommendations for practice and presented in an accessible, sharable format that works for people who are time-poor and stressed.

PODCASTS MAY PROVIDE THE ANSWER

Podcasts have gained popularity as a mode for both entertainment and education in a variety of fields in recent years. One of the reasons for the popularity and efficacy of podcasts as a medium for learning might be seen in the relationship between how successful podcasts communicate information and how humans learn. Narrative Theory suggests that storytelling is a fundamental aspect of how humans make meaning about the world and ourselves (Rossiter, 1999). Fisher (1984) went so far as to give humans the label homo narrans, so central did he consider the role of storytelling in our evolution, and theorists from Bruner (1990), to Gottschall (2013) continue to highlight the role of storytelling in human experiences and perception. In education, specifically, the value of narrative learning in adult learning has been argued by researchers who have suggested that adult learning is multidimensional and contextual. Presenting information in a narrative format can make it easier for adults to encode new ideas and make connections between new and prior knowledge and experiences (Clark, 2001; Clark & Rossiter, 2008; Merriam, 2008; Rossiter, 1999).

A host of highly-successful podcasts, such as This American Life, which uses narrative, long-form journalism, the ever–increasing slew of true crime shows, and investigative journalism podcasts such as Serial, leverage the power of storytelling to garner vast audiences of listeners seeking entertainment. However, there are growing genres of podcasts focused on adult learning and translational science. For example, following a dramatic increase in both popularity and ubiquity, medical podcasts have become the most commonly used asynchronous learning resource for medical residents (Zhang et al., 2022). In addition to supporting formal adult learning, many podcasts use narrative methods to support informal adult learning and translational science. Shows such as Science Vs, Radiolab, and The Infinite Monkey Cage, for example, share robustly researched and reliable information that synthesize published research on a variety of topics packaged in an engaging and entertaining format to attract a broad listener–base.

Several attributes can be associated with successful podcasts. The PodCred framework, for example, provides an analytical framework consisting of the indicators listeners take into account when they assess the credibility of a podcast including the podcast's content, context, host, and technical execution (Tsagkias et al., 2009). For listeners, the credibility of a podcast is strongly related to the consistency of its topical focus, the structure and duration of episodes, the fluency and style of the host's speech and way of addressing the audience, and production quality, among several other factors. A recent scoping review of medical education podcasts found that listeners identified similar attributes in the podcasts they favored and, in line with the narrative learning framework, tended to prefer a conversational tone with personal anecdotes and humor (Kelly et al., 2022).

The ubiquity and success of general entertainment and scientific translation podcasts, as well as the success story of medical education podcasts, demonstrates the potential for podcasts to provide a solution to education research-practice divide. Several education–research focused podcasts exist, including The Harvard EdCast, Education Research Reading Room, Meet the Education Researcher, The Evidence Based Education Podcast, and BOLD (Blog on Learning Development) Podcast. However, although interviews with researchers feature heavily in this genre, the tone and style of these podcasts is typically more didactic than truly conversational. Furthermore, the topic is often geared more towards researchers than teachers, usually focusing on the research itself over its practical implications and applications. Episodes usually center on a single researcher or published paper rather than seeking to synthesize multiple sources to make generalizable meaning at the practical level and, like traditionally presented research, are usually unidirectional, passing information from the host to the listener.

To meet the needs of the teaching community, a new type of podcast is needed that curates, collates, and communicates research findings with an emphasis on practice, in a more engaging tone and style, through multi-modal forms of communication (audio, blog, discussion threads) to establish bidirectional communication between the hosts and listeners. In response to this need, I co–created a podcast (Gilmore & Deos, 2019–present), Little Key Podcast, with the aim of trying to find evidence-informed answers to the questions I knew teachers had, e.g.

- Does homework actually improve student attainment and achievement?

- Is the time I spend creating beautiful, colorful display–boards helping my students or distracting them?

- As COVID-19 forces schools online, how worried should I be about screen time?

By organizing episodes around topics of interest to teachers rather than individual publications or researchers, we ensured that our episodes were relevant to the teaching community and translated research into real-world, transferable contexts.

For each episode, my co-host and I invested the time to find published research that appeared to be reliable and relevant, and derived contextualized meaning from them by

synthesizing researchers' findings and recommendations into key points that teachers could consider and trial in their classrooms. We did interview some researchers but, when we did so, it was to seek their input on a wider topic and its implications for practice rather than to discuss a specific paper or the research process. This translational approach created an experience that was accessible and efficient for an audience of teachers for whom the point is not the research itself but what that research means for them, in their context.

We recorded each episode as a conversation that was intended to be enjoyable. We shared our personalities and perspectives and tried (but mostly failed) to keep our episodes reasonably short, the length of a commute or the time it takes to cook dinner, to make it possible for our audience to engage with research while multitasking. Knowing the needs and barriers that the majority of teachers have, it was important that episodes should be both enjoyable and digestible; the last thing teachers want or need is a listening experience that feels like more work.

As a complement to each audio episode, we created a website that featured long form blog posts that shared a deep–dive into the research behind the episode, similar in scope and purpose to a review tutorial, but written in plain-English with teachers, rather than researchers, in mind. The posts were intended for listeners who wanted more information and included direct links to both peer–reviewed and non–academic sources. Teachers are often faced with situations in which it would be beneficial to be able to share and discuss evidence–informed practices such as in parent conferences or team meetings. To support them in doing this, we also created downloadable PDF resources that could be shared in print, digitally, or over social media and embedded them in our blog posts. To help ensure our podcast was accessible, each episode was fully transcribed in English for people with hearing difficulties, and we invested time and resources into creating the highest level of audio production quality possible.

While this podcast was aligned with the majority of the attributes and indicators of the PodCred framework (Tsagkias et al., 2009) and had topical relevance to teachers, it lacked a reciprocal element: a discussion board, forum, or other mechanism for teachers to propose episode topics, react, and share how their implementation of the research worked in their classrooms. This is important because, by providing a place where teachers can share the resources they create and the approaches they trial, both teachers and researchers can learn from their successes and challenges, make connections between the outcomes of implementation and context, and find active participants from the teaching community with whom researchers can collaborate.

In the fairly short time we were producing and releasing episodes, we gained hundreds of listeners with episodes having been listened to over 2,400 times. What this shows is that there is a need for this type of resource: teachers want to engage with research, they value research-informed classroom practice, and they both want and need a format, like this one, which makes that possible. Researchers also benefit in two main ways: first, greater interest and awareness from teachers in their areas of research can create opportunities for research partnerships at the classroom, school, or district level. Second, podcasts can create greater visibility for their published work beyond an academic audience, and increase the implementation of the initiatives and interventions they study.

However, just as it is unreasonable to ask teachers to be responsible for seeking out and synthesizing education research, it is also unreasonable to expect researchers to take responsibility for the translation of their academic work into other formats. Both roles have pressures and incentives that channel teachers' and researchers' time and attention away from closing the research–practice divide. Although this is beginning to change, partly in response to initiatives such as the National Science Foundation's key grant proposal evaluation criterion of Broader Impact in higher education (National Science Foundation, 2020), the merit process generally recognizes and rewards peer–reviewed publications and grants for research, but not its implementation or communication to a wider audience. Teachers also do not receive incentives in the form of either time or money to engage with or participate in research. Further, neither role is well–trained for this task: most teachers lack training in statistics or research methods, and researchers have trained to communicate primarily to a scientific or academic audience. Therefore, this proposed translational bridge must come from a third party for the benefit of both teachers and researchers.

At the Neag School of Education at the University of Connecticut, and perhaps at other schools of education across the globe, we have an opportunity to use our considerable resources and collective expertise to bridge that need. We can build on this existing proof of concept to create a professional–quality, translational education research podcast designed specifically for teachers, that showcases the incredible work happening both within our school and beyond it, and goes the extra step of translating theory into practice. To do this, we can draw on the expertise and interests of our graduate students and faculty to collate and synthesize research, interview researchers and in–service teachers, and learn out loud by asking questions on behalf of our listeners. We can actively involve the teaching community by seeking input and including interviews and contributions from our Teacher Education program students and alumni, inviting them to share their experiences of implementing evidence-based practices in their classrooms, and discussing their questions and hopes for research. We can also draw on the media presence of the school to enhance and extend this work through blog posts or a podcast magazine, videos, and social media to reach a wider audience.

It is time for the education research establishment to examine what we might learn from teachers about their needs and interests to make education research more accessible and relevant to them. Rather than expecting teachers to seek out researchers and their work, or researchers to reach out to teachers individually, it is time for the education research establishment to take one (or several) steps closer to teachers and work together to build a bridge over the divide between research and practice to accelerate the improvement of learning and teaching in schools.

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