Research-informed teaching: The case of Musical Futures

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Abstract
Drawing on descriptions of research-into-practice initiatives, this article presents a new framework to aid understanding of how research findings influence educational practice at scale. The framework focuses upon five areas: trustworthiness of the findings and generalisability; implications and instructions for practice; support for implementation; fidelity of the implementation; and accountability. Green's informal learning model for music education is focused upon as one example of how research findings influence classroom practice, explored through the lens of the framework. The empirical research was conducted in two phases: (1) semi-structured interviews were conducted with key figures relating to the initiative; (2) four case studies were undertaken, involving secondary school music teachers and their pupils. The research examined the extent to which research-informed teaching was evident in the schools, and what factors might influence this. Methods used within the case studies included observation, interviews and document sources. Data was analysed thematically. It was found that Green's model was evident in the case study schools to some extent, but there was a gap identified between Green's underpinning research and its implementation. Furthermore, data showed
that the five aspects proposed in the framework influenced the success and longevity of the approach. It is therefore proposed that the findings of this study might inform future research-into-practice initiatives in education—by informing researchers of key considerations to be made when aiming to develop research-informed teaching.

**KEYWORDS**
informal learning, music education, research-into-practice, secondary schools

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**Key insights**

**What is the main issue that the paper addresses?**

The main issue that this paper addresses is a lack of understanding of how research findings influence educational practice at scale, drawing upon empirical research.

**What are the main insights that the paper provides?**

This paper provides a framework to aid understanding of how research findings influence educational practice at scale, along with an example of how this framework has been applied to a set of empirical findings focused upon informal learning in secondary music education.

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**INTRODUCTION**

This article presents a study of a large-scale attempt to implement the findings of research in school teaching in England, namely the Informal Learning approach promoted by Musical Futures (henceforth ILMF). At the peak of its influence, this approach to school music teaching, researched by Professor Lucy Green with funding from the Paul Hamlyn Foundation and implemented by the Musical Futures (MF) organisation, was utilized in 1500 secondary schools in England; it was also adopted in schools in Australia, Brazil, Cyprus, Canada and Singapore (Institute of Education, 2014). Although the ILMF approach was accorded official approval, most noticeably from England’s inspection body, the Office for Standards in Education (Ofsted), schools were not obliged to adopt the pedagogy. Rather, ILMF gained prevalence because teachers were drawn to it; they saw it as a radically new approach to teaching and learning music; they volunteered to learn about it and to incorporate it into their teaching. ILMF therefore represents a case of an educational initiative, based on empirical research and implemented at a large scale.

The empirical study reported here was undertaken some 2–3 years after ILMF reached the height of its popularity, as reported in Institute of Education (2014). Wider findings on how ILMF was understood, implemented and experienced are presented in Mariguddi (2021). This article explores the extent to which ILMF was evident in school music lessons, some years after its initial implementation. The study used case study methodology, focusing on
schools which were known to implement the ILMF approach. It found that, in the case study schools, some aspects of the ILMF approach were in evidence, others were not, and it suggests some reasons for this.

This article is structured as follows. Following a brief review of research-into-practice initiatives, the article describes the ILMF initiative and its underpinning research. The study's methodology is explained and findings are presented. The article explores possible reasons why some aspects of ILMF were retained and others were not, and concludes by considering what lessons might be learnt by those who wish to understand the impact of research-based initiatives in schools.

HOW RESEARCH FINDINGS INFLUENCE CLASSROOM PRACTICE

Whether educational research should in principle contribute to educational practice is moot, but many commentators agree that only some of this research can be expected to have a direct and discernible impact on what schoolteachers do in classrooms. (For a thoughtful treatment of this matter, see Biesta, 2007, 2010). Educational research might affect the ways that people think about education; it might influence the questions they ask (Biesta, 2015). Even within an educational institution with clearly defined purposes (e.g. a school), educational research can influence matters as diverse as teachers' reflection and organisational learning, as well as practical decisions (Cain et al., 2019).

The research-into-practice literature contains considerable discussion on how research should be put into educational practice. For example, Brown et al. (2017) propose that research-informed teaching practice should be integrated with data-based decision-making for a more effective approach to developing evidence-informed practice. Yet there are comparatively few empirical studies of research into classroom practice initiatives in education; the literature around this topic has, until quite recently, consisted of largely descriptive accounts of research-into-practice initiatives, written by the researchers themselves and often lacking methodological and/or theoretical rigour (Wyse et al., 2018).

An exception within the UK is the work by the Education Endowment Foundation (EEF) which, over a 10-year period, has funded and evaluated research-into-practice initiatives in order to meet the needs of disadvantaged children. Typically, the EEF invited schools to bid to participate in small educational experiments; bidders were assigned to matched experimental and control groups and the experimental groups were given training and resources to implement an educational 'intervention', usually supported by evidence of promise such as research. Interventions were evaluated by means including comparing national test data for experimental and control groups. A review of these projects (Demack et al., 2021) devised a theoretical framework for evaluating the projects; this included the intervention (e.g. its focus, intensity, cost and the resources needed to implement it); the theory and evidence underpinning the intervention; the implementation of the intervention (including the support needed to implement it and the reported fidelity of the actual practice to envisaged practice); and the context in which it was implemented (including the characteristics of the institution and the individuals receiving the intervention). From the perspective of evaluation, each variable should be considered.

From the perspective of research, Cain and Allan (2017) analysed successful education departments' submissions to the UK government's 'Research Excellence Framework' activity in 2014 (www.ref.ac.uk/2014/). They found a general process by which research impacted on educational practice: it uncovered problems with an aspect of practice; it was disseminated beyond the research community; it was incorporated into activities and resources. This led to changes in thinking and practice. Dissemination beyond the research
community involved local or national policymakers and often practitioner-facing publications, conferences and networks of professionals, including subject associations. Incorporation of research findings into activities included professional development and often resources for teaching. In this process, the details of the research (e.g. the nature of the research designs, subjects and even the results) were ‘invisible’ to practitioners.

A cross-sector review of research-into-practice reports, exploring indicators of quality, identified further variables: the role of practice-based expertise and evidence within the practice context; the conditions that support evidence use; and the development of evidence-informed practice over time (Rickinson et al., 2021). This report also considered aspects of evaluation and accountability, such as whether the focus is on processes or outcomes of evidence use; and the scale of evidence use within a system. The authors state: ‘evidence use does not happen in a vacuum, but demands capacities and supports across individuals, organisations and systems’ (p. 8). In the field of education, the authors highlighted ‘the central role of leadership in establishing a research-rich culture’, ‘developing teacher capacity’ and ‘ensuring supportive processes and resources’ (p. 8).

From the perspective of practice, a ‘narrative review’ (Cain, 2016) found that teachers access educational research for both extrinsic reasons such as gaining advanced qualifications, and intrinsic reasons such as exploring practical and professional concerns, and they are more likely to do so if their school leaders promote a culture of research use. Teachers across several studies showed a preference for easily readable summaries of research and tended to prefer research ‘that addresses the relationship between what they do and what students learn’ (p. 621). From a similar perspective, Brown and Flood (2018) found that teachers adapt practical instructions, rather than following them closely, because they incorporate instructions into their own ‘theories of action’. A theory of action can be described by an ‘if/then’ heuristic. In a classroom this might be ‘if pupils do x, they will likely learn y’. [Handal and Lauvas (1987) suggest that teachers’ theories of action include a third layer, relating their reasons for action to their overarching educational purposes].

A more fine-grained understanding of the research-informed practice process can be obtained by considering individual cases. The research that inspired ‘Assessment for Learning’ was a systematic review of research on formative assessment and its impact on pupils’ learning (Black & Wiliam, 1998a). This demonstrated that formative assessment improved outcomes for pupils, but its implementation was poorly understood. Four effective implementation strategies were discovered; these were disseminated via a 30 000-word review article (Black & Wiliam, 1998a) and a summary for teachers (Black & Wiliam, 1998b).

A subsequent research project enabled the researchers and their associates to work with 48 teachers of English, mathematics and science, in two Local Authorities (LAs) in England. In each LA the teachers undertook 11.5 days of professional development: they were presented with the research findings and were supported, individually and collectively, to plan and implement their own interventions, based on the research. In order to evaluate the teachers’ use of these findings, their students were tested and the test results were compared with at least one comparison group. The results showed larger learning gains for the children in the ‘Assessment for Learning’ groups (Black et al., 2003; Wiliam et al., 2004); these results were also disseminated in a teacher-friendly summary. The success of the ‘Assessment for Learning’ research eventually reached many schools. Continuing professional development was delivered by the researchers and their associates, and the use of formative assessment became official government policy through the Assessing Pupils' Progress (APP) initiative (2008–2010) and the revised ‘Teachers’ Standards (Department for Education, 2011). Nevertheless, one study into teachers’ use of formative assessment found that, although many teachers used the surface procedures described in Black and William’s research, few did so in ways that enabled pupils to learn how to learn (Marshall & Drummond, 2006, p. 137).
A more recent example of research impacting on classroom practice is the case of synthetic phonics teaching in England. Research commissioned by the devolved government in Scotland and undertaken by Johnston and Watson (2005) found that children taught with a synthetic phonics approach to early reading made consistently greater progress than their expected level. The study was widely publicised and caught the attention of the Education Select Committee, which recommended a governmental enquiry into the teaching of reading. The enquiry (Rose, 2006) recommended the use of synthetic phonics in all English schools, citing Johnston and Watson (2005), Torgerson et al. (2006) and the National Institute of Child Health and Human Development (2000a,b). Although the recommendation was critiqued (e.g. Wyse & Styles, 2007), the use of synthetic phonics was consequently mandated by the English government (Ellis, 2007). To support the synthetic phonics approach to reading, the English government commissioned and published a detailed programme for teachers (Department for Education and Skills, 2007). Simultaneously, teaching consultants were employed via LAs to ‘work intensively in about ten schools per year but also disseminate best practice throughout the LA by offering courses’ (Machin et al., 2018, p. 222). Evaluating the synthetic phonics approach in England, Machin et al. (2018) found that it had had a strong positive effect initially and, although this faded on average, it persisted in children who found learning to read particularly difficult.

It is possible to extrapolate a simple model of the research-into-practice process from these reports, both the reviews and the individual instances:

1. Research generates trustworthy findings with implications for practice.
2. These implications for practice are encoded as instructions or guidelines, communicated to practitioners, usually via some combination of local or national policymakers and ‘knowledge brokers’ (Malin & Brown, 2019).
3. Practitioners are supported to implement these instructions; this involves professional development (e.g. training or coaching) and often the provision of resources (e.g. textbooks or digital materials).
4. The instructions are implemented by practitioners, being incorporated into their theories of practice and implemented using their practical expertise.
5. There is some form of accountability (e.g. to school leaders, inspectors or each other). Accountability might also involve testing the ‘intervention’ students and comparing the test results with others.

This framework can aid understanding of how research findings influence educational practice at scale (although not necessarily when individual teachers carry out research-informed practice, e.g. as part of a higher degree course) and to evaluate research-into-practice initiatives. The remainder of this article will use this framework to consider ILMF as an example of research-informed teaching.

THE INFORMAL LEARNING BRANCH OF MUSICAL FUTURES

ILMF is based upon a theory of informal learning in music education established through an empirical study by Professor Lucy Green (Green, 2002, 2008). Green (2002) proposed that problematically, informal learning practices within the field have been overlooked in favour of more formal methods. Green acknowledged that although the curriculum in music education had changed over the last 50 years to include a wider range of genres, for example jazz and world music, pedagogy had not evolved alongside these developments. Thus, Green’s interest and subsequent impact within the discipline was focused upon pedagogy. Fourteen
musicians involved in Anglo-American pop and rock music, aged between 15 and 50, were interviewed in Green’s (2002) study. Characteristics of informal learning experienced by the participants were sought. From this study, Green developed the five principles (5Ps) of informal learning for music education, establishing a new and innovative pedagogical theory within the discipline of music education, emphasizing the importance of student choice and working within friendship groups:

P1. Learning music that musicians choose, like and identify with.
P2. Learning by ear—listening to and copying recordings.
P3. Learning with friends and peers with shared musical tastes.
P4. Personal, often haphazard learning without structured guidance.
P5. Integration of performing, listening, composing and improvising, with at least one (though not all) of these principles present in all stages of ILMF.

The next stage of Green's research involved the transfer of these principles into the secondary school setting, in the form of an action research project in 21 secondary schools in England, between 2002 and 2006, reported in Green (2008). Green hoped that, by introducing principles from the informal realm of music learning into formal school music lessons, some of the problems of school music could be remedied. Some of these problems, which have been troubling those within the field for decades, include a lack of student motivation, authenticity and inclusion that arise when music teachers adopt a strongly teacher-directed pedagogy, focusing on reading musical notation and based on styles of music that are often disliked by most pupils (e.g. Green, 2008; Harland et al., 2000; Lamont & Maton, 2010; Ross, 1995). Green (2008) reported positive outcomes of ILMF, including an increased level of student motivation towards school music lessons and improved student attainment in music. The key learning outcome identified by participating teachers in Green's (2008) study was an improvement in students' aural skills, along with instrumental, singing and ensemble skills exceeding most of the teachers' expectations.

Green (2008) suggested teacher implementation of the five principles through a structure of seven distinct stages (Table 1) during her action research project. Each stage featured at least three of Green's (2002) principles, and sought to provide a structured use of these principles, relating to the type of musical genre focused upon—from popular to classical

<table>
<thead>
<tr>
<th>Stage</th>
<th>Included principles (Green, 2002, 2008)</th>
<th>An overview of each stage</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>P1–P4</td>
<td>In the deep end. This stage sought to emulate authentic informal learning practices of popular musicians.</td>
</tr>
<tr>
<td>2</td>
<td>P2, P3 and P5</td>
<td>Aural learning of popular music—with a reduction in student choice and autonomy.</td>
</tr>
<tr>
<td>3</td>
<td>P1–P4</td>
<td>In the deep end—a repeat of the first stage, used to build upon and develop students' newly acquired skills.</td>
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<tr>
<td>4</td>
<td>P3–P5</td>
<td>Composing music through an informal learning approach.</td>
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<tr>
<td>5</td>
<td>P3–P5</td>
<td>This stage involved engagement with real-life popular musicians, who modelled the process of composition to students.</td>
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<tr>
<td>6, 7</td>
<td>P2–P4</td>
<td>Building upon stages 1 and 3 in particular, stages 6 and 7 involved informal learning with classical music. Thus, not only was the element of choice removed, but the genre was also changed from popular music to classical music.</td>
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genres. It should be noted that the seven stages were developed partly through the action research project (Green, 2008) and partly through the need to integrate the research into a formal school environment, including a sequential curriculum.

MUSICAL FUTURES

MF is an organisation, initially funded by the Paul Hamlyn Foundation; it was established shortly after Green's (2002) study had been published (www.musicalfutures.org). Akin to Green’s (2002) wider aim, the MF organisation sought solutions to the problems of school music, in order to raise the musical participation of 11 to 19 year olds. The vision of the project was to ‘devis[e] new and imaginative ways of engaging young people in music activities for all 11–19 year olds’ (Price, 2005, p. 1), and it sought to influence policy and practice through its work. Green’s (2002, 2008) research into informal learning was adopted by, and became a branch of, the MF organisation in 2003, as both parties appeared to have an overarching aim and ethos that were well aligned. MF funded the continuation of Green's research and heavily promoted the approach through professional development events for teachers and student teachers (including beyond the UK) and the provision of resource materials, available free of charge on the internet. Particular support was offered by teachers in ‘Champion’ schools, who were known to use MF approaches and who provided opportunities for teachers to observe the day-to-day practice of ILMF.

In 2006, Ofsted (the public inspection body in England) evaluated MF; findings included increased student motivation and progress, and more students choosing to continue with music post-14. Ofsted also stated: ‘intensive guidance was needed at the beginning of the project’ (Office for Standards in Education, 2006, p. 2), suggesting that teachers would need support to implement the approach. Two further evaluations of MF were undertaken by academics within the Institute of Education (since incorporated into University College, London). Benefits of ILMF reported by Hallam et al. (2008) included its potential to enhance student motivation and quality of learning and to contribute towards increased music take-up at General Certificate of Secondary Education level (the main public examination in England). Problems included accommodation and resource constraints, and the unknown potential difficulties that students might face when transitioning from an MF approach to the more formal requirements of GCSE music (Hallam et al., 2008). A later study confirmed some of the benefits of the previous evaluation and identified additional ones, including higher levels of student engagement with popular music instruments (Hallam et al., 2011). It also found new problems where MF approaches were adopted most enthusiastically and other areas of music education were neglected (e.g. teachers believed incorrectly that MF related to popular music alone).

ILMF, as a part of MF, has also been implemented and researched on an international scale. Teachers are known to have independently used the materials in many countries, including Italy, Cyprus, the USA and Thailand (D’Amore, 2013). Positive outcomes and impact, similar to that achieved in England, have been documented since implementation in Australia (Jeanneret et al., 2011) and Canada (O’Neill & Bespflug, 2012). A key strength of ILMF that has repeatedly arisen in the wider literature is increased student motivation (Evans et al., 2015; Hallam et al., 2017, 2018; Jeanneret, 2010; Moore, 2019; Wright et al., 2012). However, due to the potential problems also raised in the literature, such as the examples given from the Institute of Education reports (Hallam et al., 2008, 2011), a lack of understanding about ILMF and its potential impact in music education remained. The research discussed within this article sought to explore the matter further on the grounds that insufficient in-depth knowledge of ILMF existed within the discipline.
METHODS

The empirical findings presented in this article stem from a 3-year project which sought to explore perceptions of the ILMF phenomenon in England, specifically focused upon understanding, implementation and experience. The research was designed to occur in two phases. The first phase involved semi-structured individual interviews with three key figures relating to the ILMF initial research and the MF organisation: Professor Lucy Green (researcher), Abigail D'Amore (former Chief Executive Officer) and Anna Gower (former Head of Programmes and ILMF teacher implementer). Anonymity has been waived due to their well-known status within the field. The second phase of the research design involved a multiple case study based in four schools, recommended by MF as exemplars of good practice. Multiple case study was used to achieve a ‘close-up’ understanding of ILMF in practice. The participating schools and their teachers were:

- School 1: T1 (lead participating teacher), T2, T3.
- School 2: T4.
- School 3: T5.
- School 4: T6.

Methods used within the case studies included interviews with both the music teachers and their students, music lesson observations and document sources (including researcher reflections, departmental documents and resources). In addition, a co-research element was adopted with teachers. Although not the focus for this article, teachers suggested their own research priorities and methods and implemented them within their own individual settings. The methods were used to explore the data in order to understand the extent to which the ILMF was present by using Green’s (2002) five principles of informal learning as a theoretical framework. Participant teacher reference to and/or observation of each of the pedagogical principles in action informed the answers provided to the research questions. Other factors were also considered that were perceived to either support or hinder the implementation of pedagogy; again, such factors were interpreted as either those that were in alignment or misalignment with Green’s five principles of informal learning. We expected a variety of approaches to adoption as teachers incorporated ILMF into their individual theories of practice (Brown & Flood, 2018) and adapted their practice to their particular contexts, so we focused on the five principles rather than the more finely graded instructions provided in the educational resources. To further support other aspects of trustworthiness for this study, Lincoln and Guba’s (1985) four criteria to frame and generate trustworthy qualitative data (credibility, transferability, dependability and confirmability) was used to guide the researchers throughout. Data for the overall research project was analysed thematically (e.g. Braun & Clarke, 2006). An anonymised dataset, gathered in the four case study schools, can be located on Edge Hill University’s repository.

FINDINGS

Data are examined in the light of the framework above, in order to explore ILMF as a research-into-practice initiative.

1. Research generates trustworthy findings with implications for practice.
RESEARCH-INFORMED TEACHING: THE CASE OF MUSICAL FUTURES

On its own, Green’s (2002) basic research, investigating music making beyond school, might have been an insufficient basis for incorporating informal learning into schools. Garage bands and schools differ greatly; for instance, the informality of garage bands allows for extended periods to be spent making music, whereas schools tend to allocate strict time limits to lessons; garage bands are entered into voluntarily, whereas schools require all pupils to attend lessons. However, Green’s (2008) action research project gave a good basis for supposing that the five principles could be incorporated into the curricula of a variety of secondary schools in England. As the work became more well known internationally, a growing body of evidence appeared that the ILMF approach could be adopted by music teachers in a wide range of countries with varying educational systems, and multiple studies reported the motivational benefits of ILMF (e.g. Evans et al., 2015; Hallam et al., 2017, 2018; Jeanneret, 2010; Moore, 2019; Wright et al., 2012).

2. Implications for practice are encoded as instructions or guidelines and communicated to practitioners.

The seven stages of Green’s (2008) model provided a clear set of guidelines for teachers; these were communicated primarily by MF. However, none of the participant teachers explicitly referred to the seven stages; this suggests that, once instructions had been incorporated into the teachers’ own theories of action (Brown & Flood, 2018), the ‘seven stages’ disappeared. Some teachers did use the term *In at the deep end* when referring to their implementation of ILMF. Thus, it was found that the *In at the deep end* stage and ILMF had become merged together in understanding, implementation and therefore experience—with an absence of explicit mention of any of the other stages. It is possible that *In at the deep end* was the focus for training and that, when time was limited, this stage might have dominated the training at the expense of other stages.

3. Practitioners are supported to implement these instructions.

Practitioners were supported via the MF organisation which acted as an effective knowledge broker; it provided information, professional development, resources, examples of good practice and continuing support via a network of schools. It also had sufficient political savoir-faire to attract an evaluation of its work by Ofsted. However, ILMF was not the only branch of its activities, and this seems to have caused some teachers to confuse ILMF with some of these other activities (such as band work).

All of the teachers in this study had engaged with MF training. T1, T4 and T6 had also delivered training for MF. Both T1 and T4 had been implementing MF and ILMF for a longer period of time than T5 and T6. T1 began to implement MF in 2008 and T4 began to implement MF in 2008, whereas T6 began to implement MF in 2013 and T6 began to implement MF in 2015. Although a peak in success was not referenced by T5 or T6 during my school visits, it was alluded to by T1 and T4 for their schools:

T4: As I’d said, we had kind of like our best ever results at GCSE, we’d had 60 students in there. And I was writing a lot, I was tweeting a lot, I was blogging a lot, often on like MUFU [MF] chats. […] And it really started to snowball.

T1 made reference to a ‘golden age’ of MF, during the initial years of implementation in school. Increased student engagement with playing popular musical instruments was recalled, along with high numbers of students attending extra-curricular activities. More recently, both T1 and T4 held additional school management responsibilities. This shift in their priorities could have contributed towards ILMF and MF demise within their schools, as T1 and T4 could be
seen as the key figures driving the approach within their schools, yet had been unable to sustain the level of success they had previously achieved.

Although a variety of resources for ILMF were available for teachers to access, free of charge, via the MF website—and were spoken about as a strength of MF by the phase one participants—none were observed or specifically referenced as being used by the teachers to form the basis of their ILMF lessons during this study. It was acknowledged that once Green’s (2002, 2008) theory had ventured into the community of teachers, departure began to occur. D’Amore reflected upon the development of ILMF with the release of a second-edition Teacher Resource (D’Amore, 2009), which was influenced by teachers’ practice: ‘the theory is still there, very solidly, but the practice really informed that’. Perhaps the malleability of the approach and resources had led to teachers failing to adhere to the guidance closely, resulting in dilution of the ILMF approach. Furthermore, D’Amore suggested that perhaps teachers don’t always feel a need to understand theoretical or empirical support for teaching, stating: ‘Teachers just want resources and that's it. They just want to download something that they can use on a Monday, and they want to do it on a Sunday night. And the traffic to our website reflects that’.

4. Instructions are implemented.

Our empirical research found that ILMF was evident in the case study schools to some extent, but a gap was identified between Green’s (2002, 2008) underpinning research and its implementation. Within each school, some ILMF principles were implemented and others were disregarded, and teachers implemented different principles to various extents. The only teacher who implemented all five principles throughout his practice was T1: ‘I’m a bit of a purist in that sense’. However, he had adapted the implementation of In at the deep end, in which pupils chose their own music. Instead:

T1: We all did the same song as a class. And then I might have, like, the drummers working together, the guitarists working together, the bass players so they could develop the parts within little groups, so then they filter back to their groups or whatever.

This description is at odds with Green’s (2008) approach, in which pupils chose their own music and worked in friendship groups; it suggests that P1 and P3 were removed or limited. T6 articulated a view that implementation of the principles exactly as they were written was perhaps aspirational and unrealistic: ‘depending on the group I’ve got, there wouldn’t be that many of them who could go away, choose their own song, and play it exactly as the song is’. T6’s approach, in common with the other teachers’ approaches, involved greater teacher control over aspects of student support and choice, casting into doubt which, and to what extent, each of the principles were truly implemented. This could be considered as either adaptation, misconception, or a loss of ILMF in practice.

A further adaptation was the order of learning. In three of the case study schools, instrumental skills were often taught prior to engaging with practical activities. However, Green (2008) encourages students to ‘have a go’ first, and to develop skills and knowledge if and when they are needed. Traditional notation and didactic teaching were observed in all the case study schools, to varied extents. This often steered away from the values of informal learning. Furthermore, misconception of ILMF was identified. Teachers referred to ILMF as ‘band work’, reducing ILMF to cover popular music only, despite Green (2008) having encouraged the inclusion of various genres in the latter of her seven stages. In addition, teachers sometimes proclaimed a sense of ‘right and wrong’ when setting musical tasks or when
providing formative feedback to students. Again, this was discouraged by Green (2008) in an attempt to promote student autonomy.

A motivating factor identified in this study that inspired teachers to initially become involved with ILMF implementation was the potential to view MF as a ‘problem solver’. The previously reported positive impact (Hallam et al., 2008, 2011; Institute of Education, 2014; Office for Standards in Education, 2006) can be seen as corresponding with and nurturing this view, although some of these evaluations did also highlight potential downfalls of the approach, potentially corresponding with T3’s experience of ILMF implementation as a problem-magnifier on occasion. Despite teachers being motivated to engage with ILMF, other factors appear to have prevented ILMF being fully applied within the case study schools. Teachers were encouraged to take ownership of the pedagogy by adapting ILMF (Green, 2008). However, this study found a thin divide between ILMF adaptation and misconception, where adaptation bordered upon misconception. MF training was delivered largely by teachers who were implementing ILMF themselves. Although such a training model can have the advantage of peer support and place increased ownership of the approach on the profession, it does provide scope for misconception and favoured principles to prevail—impacting upon other teachers’ know how.

Thus, it could be argued that a fundamental understanding of the overall approach was lacking due to the misconceptions present, and the general ignoring of the seven stages. This could be due to the lack of engagement between teachers and Green’s (2002, 2008) original work (T2, T3, T5, T6), or due to the merge in practice between ILMF and other aspects of classroom practice which had happened over time in the case study schools. However, the case study design did not permit a meaningful exploration of this matter.

5. There is some form of accountability.

No accountability was built into ILMF, either in terms of mutual accountability or in terms of students’ achievement. This was not problematic when ILMF was introduced, because national policy aligned quite closely with the approach when Green conducted her initial research and action research study. A positive Ofsted report (Office for Standards in Education, 2006) about MF and National Curriculum documents that promoted enjoyment, cultural and social benefit evidence this view (Department for Education and Skills and Qualifications and Curriculum Authority, 1999; Qualifications and Curriculum Authority, 2007). Furthermore, a document was produced by D’Amore (2006) to map MF against the National Key Stage 3 Strategy, showcasing alignment. However, after 2015, when the Conservative government assumed power, education policy changed. T1 explained how changes in more recent education policy have had an impact upon implementation of MF in his school:

T1: There was a whole agenda around personalised learning, so that was with a Labour government, that was a big thing David Hargreaves and the four deeps [of learning (Hargreaves, 2006)] […] So that was how it got in, because of the school improvement plan - part of it was about introducing personalised learning, […] Whereas now, if you look at the school improvement plan, and there’s not a lot you can kind of tag in.

Thus, the shift in national policy had fed down to schools on a local level. D’Amore also agreed that MF had recently become more difficult to fit within schools due to policy: ‘[barriers] used to be resistance from the music teachers themselves, but now it’s […] the place and status of music in schools. It’s the threat of the EBacc (English Baccalaureate).’ During a discussion with D’Amore after her interview, she mentioned that MF would be ‘first to be dropped by
teachers’ if policy continued to misalign with MF due to the government’s power over schools and teachers (Researcher Interview Notes). Thus, the current barrier of MF and ILMF implementation in schools appeared to be the lack of value that the current government had given to music education, particularly of a practical, informal, non-traditional nature.

**DISCUSSION**

As an example of research-into-practice in secondary schools, ILMF was extraordinarily successful: 1500 secondary schools claimed to use it—roughly a third of all secondary schools in England—and it was also taken up by schools in at least five other countries. Nevertheless, within a few years of that peak, implementation had reduced to the extent that, even in the recommended schools, including those who had participated in this study, only some parts of it were evident. Despite drawing upon the concept of theories of action and acknowledging that alternative application also has fidelity (Brown & Flood, 2018), misconceptions were found—concluding that there is a limit to adaptability before the implementation of theory becomes unlike the original theory.

What lay behind the apparent reduced implementation of ILMF? Doubtless there were some features of the ILMF approach, of secondary schools in England, and the particular schools in this study, which can explain it. But despite the limitations of this admittedly small-scale study, we can also offer some likely explanations by drawing upon the theoretical framework proposed in this article.

The evidence from this study suggests that several factors associated with successful research-into-practice initiatives were present in ILMF. It was known by participant teachers that there was a trustworthy piece of research lying beneath the pedagogy, which had implications for practice. This enabled scope for implementation beyond the initial research setting. Furthermore, in addition to the implications for practice being communicated through Green’s (2002, 2008) original research, know-how to implement it was also obtained via the MF organisation, which acted as an effective knowledge-broker for the research and provided professional development and resources which can help ease implementation (despite time pressures potentially limiting the extent to which the theory was presented in its entirety). These factors likely explain ILMF’s overall initial success. But over time, several factors combined to dilute its impact.

First, even within the recommended schools, only two of the teachers could be said to have personally engaged with either Green’s (2002) original research or the subsequent action research project (Green, 2008). Instead, implications for practice were encoded as instructions and communicated to practitioners largely through training delivered by schoolteachers, and it is likely that this training focused more on practical implementation than research. Given the ‘if/then’ heuristic which can characterise theories of action (Brown & Flood, 2018), it is likely that teachers adopted practical theories such as ‘if pupils choose their own music, they will find their music lessons more relevant and engaging’ because this is what the MF organisation says (www.musicalfutures.org.). This level of theory is necessary but perhaps insufficient because it does not include overarching aims—for example, whether ‘relevant’ musical experiences are necessarily preferable to new and unfamiliar musical experiences. Although teachers could deliver the first of Green’s (2008) seven stages, there was little evidence to suggest that they could deliver the later stages, which would have covered a wider range of musical styles. Instead, they used didactic, whole-class teaching to fill the gaps in the curriculum left unfilled by stage 1. Perhaps the ILMF training had focused disproportionately on the first stage; perhaps this stage was the one that the teachers remembered best; perhaps they had been expected to learn about the other stages from reading and had not done so; perhaps the training was too short to deal
adequately with all seven stages. In any event, the case study teachers had largely come to equate ILMF with its first stage and sometimes with practices (such as grouping guitarists or drummers together) which were not part of ILMF at all. This raises question about the level of support practitioners received to implement the instructions, to what extent they engaged with Green’s (2008) findings and implementation steps and strategies, and even the extent to which they used the MF resources for, although these were downloaded in large numbers, the case study teachers did not use them either in the observed lessons or in the planning of those specific lessons.

Questions of fidelity to the theory can be raised at this stage. Participant teachers were perceived to have a shared ethos with the original theory, valuing aspects embedded in Green’s (2002, 2008) five principles, such as student choice and aural learning. However, this was voiced and implemented to different extents, and at times misconceptions did occur. Perhaps there was a lack of funding or limited time for teachers to engage with ILMF as thoroughly as those in Green’s (2008) action research project.

Finally, there was no accountability built into ILMF, either in terms of mutual accountability or in terms of students’ achievement. Although benefits to students and teachers were reported in individual settings, there was no explicit tool used to evaluate implementation of ILMF. This meant that teachers who were free to adopt ILMF were equally free to abandon it, especially when the policy climate changed. We think this point is important because, when ILMF first came to prominence, it fitted well with education policy more generally and therefore fitted well with schools’ Development Plans. At some point after the 2010 election, when the Labour government was replaced by the Conservative-led coalition, the direction of educational policy changed. The ‘personalisation’ agenda was replaced by one which emphasised formal, whole-class teaching, completely at variance with ILMF. This was reflected in the music curricula in the case study schools, which retained some aspects of informal learning but also included formal instruction and staff notation. Even in a subject such as music, which is rarely at the forefront of educational policy, national policy endorses some practices (e.g. whole-class teaching) and censures others (e.g. informal learning). Public policy is interpreted by schools and teachers in various ways (Ball et al., 2011), but organisational policy ensures that it reaches parts of schools which can seem peripheral (e.g. music departments). Research-into-practice initiatives which are well aligned with current, national policy might succeed but, when policy changes, it might be very difficult for these initiatives to continue to thrive.

CONCLUSIONS

As previously suggested, not all educational research does, or should, influence practice, but for those whose research can contribute to the development of practice, this article offers a simple model of the research-into-practice process and a close account of one example of that process. Among other matters, we have shown that the process is complex, with multiple opportunities to lose sight of the research; although some have called it an ‘implementation science’ (e.g. Kelly & Perkins, 2012) it is not methodical, not least because it involves several different interests including those of research, policy, knowledge brokerage and practice.

In the case of ILMF, the principal investigator remained close to the process through its early implementation and evaluation (described in Green, 2008); this seems to have been unusual among the research-into-practice initiatives reviewed above. Nevertheless, by the second stage of the process, the MF organisation was focusing attention on additional projects which, in the minds of teachers, caused some conflation of ILMF with other matters. At the third stage, it seems likely that training, delivered by teachers, was insufficient to enable
teachers to reflect on the research in the light of their overarching educational aims, and it is possible that resources, although downloaded, were not always used. Thus, implementation was somewhat piecemeal and, when the general direction of public policy changed, the lack of accountability meant that ILMF became diluted in England although it was thriving in other countries.

This has implications for further research on research-into-practice initiatives, including those with larger sample sizes and international participation. This could potentially strengthen the findings of this study and further provide support for the proposed framework. The five stages of the framework suggest a research agenda. For example, it is fairly common for researchers to suggest implications for practice, but there is little research into how practitioners understand researchers' implications for practice. Also, little is known about how research findings become transformed into instructions or practical guidance, although the ‘theory of action’ notion provides a promising starting point for further exploration of this matter. Whereas there is a substantial body of research in teachers’ professional development, little of this is explicitly concerned with the research-into-practice process. Similarly, evaluation research is well developed but the benefits of research findings to educational practice remain unclear.

The ILMF experience might also inform future research-into-practice initiatives in education. Our findings suggest that if researchers want their work to impact on educational practice, they might need to establish trustworthy findings, and to ensure that their ‘implications for practice’ are indeed practicable. These implications should be encoded as instructions or guidance and communicated to practitioners clearly. This is likely achieved with policymakers and knowledge brokers, who have their own, shifting agendas. Support to implement these instructions is required, either through professional development or other support networks such as mentoring and coaching. Resources will need to be sufficient, understanding that teachers will likely view these for their practical value. Steps to ensure that fidelity to the instructions are maintained throughout implementation should be considered—deciding at what stage adaptations might become misconceptions and unlike the original theory. Matters of accountability will also need attending to because, if an initiative is seen to generate measurable benefits for students (e.g. test results or numbers of students opting for examination courses), teachers might continue with it; if not, the initiative might well die. And there is a need to consider how the proposed initiative fits with national policy and the possible changes in policy.

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DATA AVAILABILITY STATEMENT
An anonymised dataset, gathered in the four case study schools, can be located on Edge Hill University’s repository: https://doi.org/10.25416/edgehill.17136002.v1

ETHICS APPROVAL STATEMENT
Ethical approval was granted for this study by Edge Hill University.

CONFLICT OF INTEREST
The authors declare that there is no conflict of interest.

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ENDNOTE

1 ‘In at the deep end’ refers to the first stage of Green’s (2008) approach.

REFERENCES


