Editorial

Using research to inform practice: the teacher as a practitioner researcher

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Introduction

Most policies and strategies to improve teaching practice and student learning have often underpinned their arguments on research as the basis to authenticate their appropriateness and potential effectiveness. In essence, the idea of using research to inform teaching and learning is often considered as important and at the heart of any attempt to improve teaching practice and student learning and achievement. However, there is little evidence to demonstrate how teachers use research to inform their teaching (Ingen et al, 2016). The idea of using research to inform practice (evidence-informed practice) attracted extensive discourse in the 1990s particularly in the UK following a keynote address by David Hargreaves in a teacher training conferences in which he made an unfavourable comparison between the teaching profession and the medical profession (Hargreaves, 1996; Hammersley, 1997; McIntyre, 1997; Foster & Hammersley, 1998; Gillborn & Gipps, 1998). Hargreaves (1996, 1) contends "…both education and medicine are profoundly people-centred professions. Neither believes that helping people is merely a matter of a simple technical application but rather a highly skilled process in which a sophisticated judgment matches a professional decision to the unique needs of each client".   However, he argues that there is a fundamental difference in the way each of the professions engages with research to inform practice. While in the education profession majority of researchers are not practitioners (usually university academics) and rarely utilises research outcomes to inform practice, in the medical profession, there is rarely differentiation between researchers and users; both are practitioners. Communicating research findings to practitioners is one of the major challenges and constraining factors in utilising research in the education profession; in medicine this factor is eliminated to allow for systematic and effective application of research. Hargreaves speech challenged education professionals to rethink the idea of using research to inform practise in order to make it as robust as in the medical profession.

Nonetheless, other perspectives argue that using research to inform practise is not fully possible or applicable in education due to its nature and contextual dynamics. For example, in the UK and the US, the use of evidence-based medicine as a model for comparison is viewed as a distortion of the essence of education and the dynamic nature of educational practices. It is argued that there is no evidence or guarantee that the approach used by medical science can achieve the same outcomes if used in education (Matsushita, 2017). Similarly, in an earlier paper titled "Why 'what works' still won't work: From evidence-based education to value-based education", Biesta (2010) posits that there are three fundamental deficits in the idea of using research to inform practice or what is termed evidence-based practice: knowledge deficit (uncertainties in the relationship between action and effects); effectiveness/efficacy deficit (inability to determine effects due to the nature of social interaction); and application deficit (invisibility of work that is done to make scientific knowledge work). Biesta thus suggests that education is a teleological practice (focuses on purpose/aim), hence the effectiveness of practice should always be secondary to the purpose, which represents the real or inherent value in education (value-based approach). Given the intense opposing perspectives in the on-going discourse about the 'appropriateness' in applying research informed practice or evidence-based approaches to achieve educational goals, fundamental questions worth asking are – how should education practitioners proceed from here? What are the most

feasible alternatives that can stimulate constructive development of practice; have recognisable impact in attaining the aims and objectives of education?

Generally, evidenced-based practise in education may be categorised in different forms (e.g. practitioner involvement or who provides the evidence, by discipline, nature of research etc). Focusing on 'who provides the evidence', at least three dimensions are visible: The first dimension is the drawing on evidence from research undertaken by other researchers, mostly academics in higher education institutions. In this case, access to research is via academic journals or academic conferences. The main issues associated with this source are that research findings may not be relevant to the needs of education professionals and there potential communication barriers in relation to understanding research findings and how these might be applied in the real life practice contexts. The second dimension involves drawing on evidence from research undertaken by other education professionals in the context of their practice to deal with specific issues related to their teaching practice. Main issue related to this is that it may be difficult to use/apply in a different context because of its focus on particular issues within specific contexts. However, the opportunity in this is that such evidence is built on real life, practical situation which can be modified and applied to similar contexts. The final dimension entails sourcing evidence from a teaching professional's own research to inform practice – this could be an individual research or in partnership with other similar practitioners focusing on their practice and/or area of practice. This type of research emanates from practice and aims to deal with particular issues or opportunities in practice. In this dimension, the evidence is relevant, the practitioner has informed understanding of the evidence and familiar with the context in which the evidence is to be applied. Although literature shows that there are many factors that influence the effectiveness of teachers' professional learning and practice (Hilton & Hilton, 2017), we argue that evidence from research can inform teaching practice with varying degrees of efficacy and impact depending on the dimension and the extent to which the nature and contextual dynamics inform the process. Practitioner research thus presents an opportunity through which evidence from research can be used to inform teaching practice. What is practitioner research and how can it be integrated into practice to achieve the aims of teaching and learning?

Practitioner research: research inherent nature of the teachers' professional practice

Current studies about ways in which teachers can improve their professional practice have focused on practitioner research (action research) as the most viable and powerful alternative to enhance teachers' effectiveness (Campbell & Groundwater-Smith, 2010; Hong & Lawrence, 2011; Hilton & Hilton, 2017; Wall and Hall, 2017). Practitioner research evolved since the 1940s and it is generally viewed as a cyclical process that involves identifying an issue(s) in practice, generating relevant data, planning to act, implementing and reflecting on the action (Pilkington, 2009; Lewin, 1946; McNiff, Whitehead and Lomax, 2003; Coghlan and Brannick, 2005). According to McNiff (2010), practitioner research focuses on practical ways a practitioner/professional looks at her/his own work to check whether it is the way she/he likes it to be. It is a means through which to challenge conventional views of undertaking research at the workplace as well as defy the 'more reductive, neoliberal conceptions of teachers' learning' (Hardy et al, 2018, 422). Although some perspectives maintain that it should not be part of a teacher's professional role to engage in any form of research (Matsushita, 2017), Reis-Jorge (2007) argues that one of the many reasons for teachers' research is that it creates an environment and an opportunity to have democratic rights in their practice to determine what counts as valid knowledge. Similarly, Cochran-Smith and Lytle (1999) suggest that teachers are the 'expert knowers' of their students and classroom contexts hence, are in a better position to undertake research that is relevant to and can inform practice.

The teachers' daily practice is fundamentally a reflective process – they look closely at what they do, ask critical questions about the effectiveness of what they do and seek answers for these questions. The process of seeking answers is integrated into practice, involving clearly defining the issue, planning how to effectively deal with the issue, implementing the plan and then describing, analysing and reflecting on what happens which would lead to generating new knowledge and new questions about best ways to facilitate and to improve student learning. Some perspectives look at issues about the nature of evidence and its validity and reliability as crucial elements to determine whether knowledge is worthwhile or not. In education practice, questions of validity and reliability of new knowledge do not come as relevant due to

the evolving nature of knowledge which is imbedded in the process. The generation of new knowledge is not an end in itself but the beginning of new set of critical questions by the practitioner which would lead to other rounds of practitioner inquiry. Similarly, concerns about how the teacher sees and deals with the situation of playing the roles of a practitioner and researcher have been raised (Pilkington, 2009; Ellis & Loughland, 2016). However, in the teaching profession, research is integrated into the work of the teacher. Teaching and learning is a critical reflective process involving reflecting on/in practice and asking critical questions about impact of teaching strategies which lead to new insights – this is consistent with the view that research is 'always a critical and reflective activity, suggesting new directions and questions' (Meiers, 2007, 54). Hence, we argue that practitioner research is indeed at the heart of the teacher's professional practice; it is the touchstone through which the professional determines the effectives of her/his practice. Papers in this issue of the Journal for Researching Education Practice and Theory present findings and reflections from practitioners researching on their practice and/or field of practice.

The first paper by Nur Siyam focuses on special education teachers' perceptions about using ICT to facilitate communication and teaching. The paper identifies a wide range of technology tools that are used to facilitate communication; it argues that although teachers generally have positive perceptions about the use of technology to enhance communication among stakeholders, there are a number of challenges related to the use. These include lack of clarity or guidelines directing the use of technology to communicate with other stakeholders and inadequate training for teachers to be able to effectively use technology tools to communicate. Siyam thus proposes, among other things, that relevant schools and policy makers should develop appropriate guidelines to ensure ethical and effective use, as well as develop training programmes and manuals to help relevant teachers to develop knowledge and skills in the use of technology to communicate. In the second paper, Amir Atef Hassanein presents findings from a research on students' attitudes towards collaborative learning in a language classroom. Evidence from the data shows that students have positive attitude towards collaborative learning due to the supportive social environment that is created; this fosters interaction and opportunity for students to learn from one another. However, the paper argues that although majority of students showed positive attitudes towards CL, teachers' teaching strategies should vary in order to take care of learners whose learning styles are not consistent with the CL. The third paper investigates the use of substitution and ellipsis by first year university students' in their English essay writing. Nishad Abdulrahman underscores the limited research in understanding this phenomenon. The research finding shows that there is very low frequency of substitution and complete absence of ellipsis in students' writings, attributing this to a number of factors including lack of exposure, ignorance on how to use the cohesive devices and the fact that substitution and ellipsis are less commonly used in writing. In order to encourage the use of substitution and ellipsis, the paper recommends a number of strategies that teachers could use to encourage students use of substitution and ellipsis in their writing - these include teachers using different types of substitution and ellipsis in their lessons as well as given equal importance to substitution and ellipsis as other cohesive devices in the classroom. Areej ElSayary engages in a critical reflection and analysis of a number of concepts related to student learning in the fourth paper. It seeks to understand the relationship between cognitive development, teaching creativity, assessment types, and an interdisciplinary STEM approach. The paper argues that these concepts are interrelated and essential for effective and holistic development of the learner. They are harnessed by facilitating the learners' engagement in solving real-life problems through integrated disciplines such as the STEM or better still the STEAM. In the last paper, Eman Al-Bouti discusses UAE high school students' conception of the 'Nature of Science' (NOS) through a case study in Al Ain. Although the study concludes that most students were familiar with NOS and had appropriate conception of it, there were significant difference in understanding NOS between male and female participants. Eman emphasised the importance of students' understanding of NOS as a prerequisite to their effective engagement and development in the sciences.

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