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Nameless and Voiceless: The evolution of an action-research student/teacher national teaching repository webspace

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Abstract

The MEd (Professional Practice) degree at the University of Glasgow is aimed at In-Service teachers, qualified professionals who undertake situated research into pedagogical challenges evident in their establishments to improve the quality of learning and teaching. Those who engage in such ethically approved professional inquiry conduct action research, without it being considered 'academic practice' in the traditional sense to which it is applied to university-based researchers. They have, however, the potential to bridge theory and practice in education and yet the dissemination arenas available to them provide neither voice nor space to effectively disseminate their small-scale, though still important, research. This paper aims to raise awareness of this issue and to propose a potential solution by discussing and showcasing the evolution of an action research student/teacher National Teaching Repository (NTR) Webspace. We do this through a series of initial considerations on quantitative methods to measure impact through Altmetrics, as well as qualitative methods based on the reflections of one MEd student who is also a co-author.

Keywords: Professional Practice, action research, school education, teachers, National Teaching Repository

Introduction

This 'On the Horizon' paper reflects on recent developments in knowledge exchange *via* the National Teaching Repository (NTR) in addressing an apparent anomaly between educational practitioners and researchers. As such, it addresses three thematic areas of this journal:

- learning, teaching and assessment
- curriculum innovation and development
- supporting the scholarship of teaching and learning.

Current Practice

Despite efforts to align educational practice more closely with the findings from educational research, there remains little clarity about how school teachers can, in principle, use research (Cain, 2018). Peer reviewed journals exist such as the *Journal of Mathematics Teacher Education* in the US, or the Asia-Pacific *Journal of Teacher Education*, but to what extent do they encourage school-based action research as opposed to

formal research typically carried out by academics from universities (Simon, 2017)? There are also teacher-led research networks and communities of practice which aim to support one another in conducting research and disseminating their findings. For example, in Australia, the Teacher Learning Network connects teachers who are interested in conducting research and provides them with resources and support. Many countries have research conferences for teachers, where they can present their findings and engage in discussions with other teachers and researchers. For example, the European Conference on Educational Research is a major conference that attracts teachers and researchers from across Europe and beyond. Some countries provide government funding for practitioner research in teaching. For example, in Canada, the Social Sciences and Humanities Research Council offers grants for research projects that involve collaboration between teachers and researchers. In other countries, teacher research is integrated into professional development programmes. For example, in Singapore, the Ministry of Education provides funding for teachers to conduct action research projects as part of their professional development. While there are developments among some Local Education Authorities in Scotland to encourage action research as part of the Probationary Teacher programme, there remains a problematic disconnect between teacher research and its implementation (McGarr et al., 2017). The problem of access to networks and resources, with the concomitant challenge of disseminating findings beyond their immediate context, is expressed by Loughran (2014) who also acknowledges the challenge of sourcing a suitable outlet for teacher researcher work.

Consequently, there appears to be a troublesome gap in the translation of research and policy into praxis. Additionally, both research and policy tend to be done to practitioners who lack agency in their work, and it follows that both research and policy are seldom led by practitioners, which creates a somewhat confusing picture of how classroom practice evolves *via* an intersection of research and praxis.

Proposed Practice

It has been argued that research generates 'new insights' (HEFCE, 2011) that are generally more firmly grounded than those drawn from either the personal experience of individual practitioners or the cumulative assumptions and practices of a profession, both of which tend to be untested. Consequently, we have developed a complementary system of research-informed activity *via* student-led action research, as part of the MEd in Professional Practice at the University of Glasgow (UofG), which generates a novel research-informed knowledge base for the development of improved pedagogies across three domains: Higher Education, Secondary Education and Primary Education.

School-Based Action Research

The profile of action research used to solve 'live' problems in primary and secondary education has been growing considerably in recent years as it has the potential to bridge theory and practice and can support the life-long learning aspect of the teacher's professional development by addressing topics that are relevant to practising teachers (West, 2011). The literature highlights that the dissemination of action research by teachers for teachers could be undermined or that it is difficult to find a specific locus for it. Consequently, it is possible that entirely valid practitioner research is simply not widely transmitted (Saha, 2009).

MEd Professional Practice

This higher degree programme is completed with a school-based action research student-led enquiry into 'live' educational challenges faced by the researcher and/or the establishment. On course completion, successful students are invited to disseminate their findings within the establishment and the Local Education Authorities, but most of all, they are encouraged to upload their dissertations, together with other artefacts, onto the school-based action research space on the NTR. These are: an abstract, an audio file (Lightning Talk) summarising their research, an infographic describing their research, aiming to facilitate ease of knowledge exchange (see Figure 1), and finally their full dissertation.



Figure 1 Sample Infographic. The lightning talk is available in the reference list (McNeil, 2022)

This approach is the first of its kind originating in HE, but permeates teaching practice at both Primary and Secondary school levels, evidencing partnership working leading to enhanced student agency. We identified several potential advantages of such an approach, drawn from the works of Menter, et al., 2011 and Baumfield, et al., 2012, which are summarised in table 1.

Table 1 Summary of the potential advantages of school-based action research, ranked in no specific order,drawn from Menter, et al. 2011 and Baumfield, et al. 2012

	Potential Advantages of School-Based Action Research					
1	Cross-sectoral collaboration/praxis-situated developments					
2	Impact. This is based on views, downloads and Altmetric (Fig 2)					
3	Improvements to practice/New practices/Targeted enquiries					
4	Addressing a need/paucity of development opportunities new body of 'packed' knowledge					
5	Student-led solving 'live' problems v theoretical challenges.					
6	Academic 'artefacts/blogs/infographics/resources/dissertations					
7	Intellectual property of the authors Discoverable, citable and DOI identified					
8	Co-construction and longevity					
9	Blogs/Infographics/teaching resources/podcasts/power points/ Ideas via Lightning talks					
10	Creation of a new mode of knowledge exchange					

National Teaching Repository (NTR)

The locus for this novel form of scholarship, the NTR, is an open access, online, searchable database where academics can upload and share teaching resources and pedagogical research, as well as teaching approaches and ideas. In so doing, their innovations and strategies not only help others, but also gain published recognition and evidence impact (Irving-Bell, et al., 2022). The knowledge exchange that emanates from the NTR considers ideas that are incubated and tested in small scale learning contexts, which are directly related to the individual needs of the researcher, the students, and the establishment (Irving-Bell, 2020).

School-based Action Research on NTR

According to Wolfberg and Lyytinen, (2017), academic dissemination has a large spectrum which has, at one extreme, academically- focused journals, mainly related to the dissemination of theories and, at the other end, there are practitioner-focused journals with a focus on communication of practice for practice. However, the spectrum shows an area at its centre where theory and practice could align, facilitating the dissemination of research where theoretical approaches are tested in a practical context by scholars - in our case school teachers or practitioner-researchers.

Our school-based action research space in the NTR could contribute to the reduction of this gap and could also become a type of community of practice where teachers can express their identity as scholars and receive the opportunity of academic development. By creating a school-based action research NTR space, the intention was to facilitate a different type of community of practice aimed at promoting the professional development of those teacher/researchers who are effectively academics but who remain nameless and voiceless (Rodolico & McGuire, 2022).

NTR Dissemination and Measuring of Impact: Quantitative and Qualitative measurements

Quantitative measurements and Altmetric

The NTR is a database which makes statistics on downloads and views available, allowing closer tracking to determine wider dissemination through social media, workshops, and seminars. These innovative channels for dissemination could result in influencing a wider public view by opening a dialogic space for bridging theory and practice. These new formats of dissemination require an innovative approach to impact measurements which could be tracked through several new methods (Scholze, 2007; Lee et al., 2021; García-Villar, 2021) aimed at complementing traditional bibliometrics (impact factor) with more innovative alternative metrics (based on social media dissemination) known as Altmetric (Butler, et al., 2017).

Nevertheless, it is well-known that impact is difficult to measure due to its multifactorial nature. Ball and Duke (2015), however, have identified a list of possible innovative indicators of impact (outlined below) which are intended as complementary to impact factor and peer reviewed journals and all available on NTR spaces.

- Influencing policy and practice
- Meeting the needs of a specific community, i.e, practitioner enquirers/ schools
- Data reuse
- Dissemination
- Page views and downloads as broad indicators of interest levels
- Searchable/discoverable/accessible where this form of study was not before
- New forms of knowledge exchange and dissemination
- The availability of specific DOIs

The metrics recorded for the school-based action research on NTR are extremely encouraging and strongly support the idea that further research is needed to identify and standardise the approach to and use of alternative metrics, to more confidently measure impact in the scholarship and implementation of innovative teaching and learning. An example of alternative metrics on the NTR is shown in figure 2 and more details on how they are measured are available on https://help.figshare.com/article/usage-metrics.

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Figure 2 NTR metrics. Views, Downloads, Citations, and Altmetric

Qualitative measurements: Teacher-Scholar and Collaborator Voice

In an ethos of mutual enrichment and equality of collaboration, we invited Marco, a former student on the MEd programme, to co-author this reflective piece of work. The aim was to add another lens through which to view the topic and, hopefully, to contribute to the impact and authenticity of using such qualitative measures of impact deployed by the NTR on teachers as academics.

Marco's reflections

As a reflective practitioner, I have always been interested in enquiring upon my teaching practice. The notion that engaging in practitioner enquiry can have a positive impact upon my learners is something that enthuses me, and is a pursuit that I regularly engage in. However, whilst the numerous enquiries that I have

conducted in my every day practice have had an impact on my own teaching and my pupils' learning, I have always felt that such findings could be shared beyond my classroom to generate a wider impact and knowledge exchange with others and yet I never found the right space. This passion for data-driven teaching guided me to enroll in the University of Glasgow MEd in Professional Practice programme to further develop my ability to become a critically reflective teacher, improve my practice, and with the hope that my conducted enquiry could be of benefit to others.

Alongside my professional development and the improvement of my data-driven planning for learning and teaching, this research also benefited me as academic, through the opportunity of wider dissemination of my findings within the open database NTR, and the challenging but exciting networking with overseas peers and academics all around the world (National Teaching Repository, 2022).

As a teacher who is interested in research, I have never been recognised *via* publication, therefore, to receive this was an opportunity for which I was extremely grateful. Observing that my research has been viewed by almost 400 people and downloaded by nearly 100 on the NTR in only 3 months from publication (Fig. 2), substantiated the fact that my work could be considered impactful. Such academic validation encouraged me to further disseminate my research within the peer-reviewed *Italian Journal of Health Education, Sports, and Inclusive Didactics* (Sisi, 2022). The successful submission to this journal in addition to the peer reviewed process increased my confidence beyond expectations. I would truly encourage all Masters-level students to take this opportunity in publishing within the NTR.

Conclusion

This impact case study is intended as a contribution to the research aimed at bridging the gap between theory, policies, and practice in school education and potentially in higher education. Action research and its wider dissemination could offer innovative solutions to the disconnect between theory and practice (Nijhawan, 2018). The school-based action research space, as well as all the other spaces on NTR (Scholarship of Learning and Teaching; Equality Diversity and Inclusion, and more), could be a step forward to provide academics, including those least agentic figures such as teachers who undertake Masters and PhD programmes, with the opportunity to publish, widely disseminate, and own their own academic intellectual properties identified with a unique DOI number. Further research and longitudinal studies are required to analyse the long-term impact of this alternative way of dissemination on learners as well as policy makers, other researchers, and the wider community. This 'On the Horizon' piece is intended to open up an initial discussion around the importance of creating spaces such as NTR to allow the 'nameless and voiceless' to have a voice and measure its impact.

Biographies

Gabriella Rodolico is a lecturer in science education (biology) at the School of Education, University of Glasgow and a Senior Fellow of the Recognition of Excellence in Teaching at University of Glasgow. She is a PhD level biotechnologist and qualified as Biology with Science teacher at the University of Strathclyde. gabriella.rodolico@glasgow.ac.uk. Twitter: @DrRodolico

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Marco Sisi is a teacher of Primary Education and a former Master of Education (MEd) Student at the University of Glasgow. He gained his Primary Education qualification (PGDE) in 2020 before embarking on a part-time MEd in Professional Practice. He is school improvement coordinator for the South Ayrshire Council. Marco.Sisi@South-Ayrshire.gov.uk

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