

RESEARCH-INFORMED TEACHING (Vol.2)



St Mary's University College
Belfast



Table Of Contents

This report highlights some examples of research that informs teaching at St Mary's University College Belfast.



Research In Teacher Education	Page 2
The Need For Research-Informed Teaching	Page 3
Examples Of Case Studies	Page 4
Case Study 1	Pages 5-6
Case Study 2	Pages 7-8
Case Study 3	Pages 9-10
Case Study 4	Pages 11-13
Case Study 5	Pages 14-16
Case Study 6	Pages 17-18
Case Study 7	Pages 19-20
Case Study 8	Pages 21-22



Research In Teacher Education

In the *Conclusions And Next Steps* section of the final report from the BERA-RSA Inquiry into the role of research in teacher education, titled “Research And The Teaching Profession: Building The Capacity For A Self-Improving Education System”, the authors wrote the following:



‘This Inquiry has uncovered strong evidence that teachers and teacher educators need to engage with research, both in terms of their subject and phase specialism, and with regard to developments in education more broadly. There is also strong evidence that teachers and teacher educators need to be equipped to engage in enquiry-based practice, which means having the capacity, motivation and opportunity to use research related skills to investigate what is working well and what isn’t effective in their own practice’. (British Educational Research Association, 2014, p.37)



The Need For Research-Informed Teaching

The need for academic staff to engage with research ensures that higher education institutions facilitate students with learning through teaching that is informed by research. This is to guarantee that lectures, seminars, tutorials, etc are enhanced to impart relevant, up-to-date and evidence-based scholarly knowledge to students.



There are several ways in which teaching can be informed by research. These include, but are not limited to: when academic staff refer to appropriate published research that is pertinent to what they teach; when academic staff draw upon their own research to communicate the conclusions that are relevant to what they teach; when academic staff reveal literature, theoretical frameworks and methodologies associated with research to further knowledge and inform practice that are appropriate to what they teach; and when academic staff enable students to interpret and make sense of research findings in order to create a critical narrative through assignments and presentations that are related to what they teach.

Examples Of Case Studies

This report presents a snapshot of some case studies that outline how research, consulted and conducted by academic staff, shapes their teaching and enhances students' learning.



Case Study 1: Dr Frances Burgess

Case Study 2: Julie Hamilton

Case Study 3: Prof Martin Hagan & Dr Claire Connolly

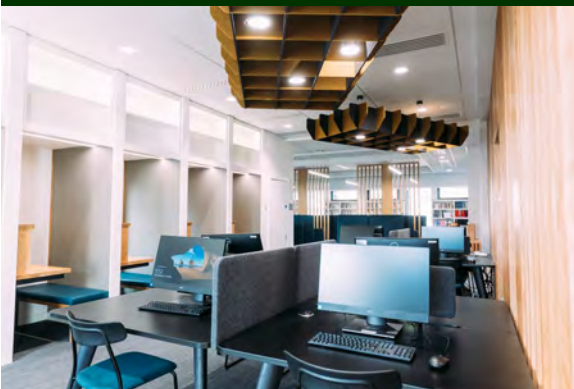
Case Study 4: Padaí de Bléine

Case Study 5: Geraldine Parks

Case Study 6: Ciaran Walsh & Dr Elaine McLaughlin

Case Study 7: Gerry Trainor, Julie Hamilton & Dr Barry Doherty

Case Study 8: Dr Matthew Martin & Karen McGivern



CASE STUDY 1

Dr Frances Burgess



Dr Frances Burgess is working on a research project that is titled “‘Cambio’ Action Research Project: Year 1 Western Music History”. It aims to: improve student engagement and interaction in music history; and make stronger connections between music-discipline studies and music education, using the theme of social justice and critical pedagogy. This involves personal scholarship that focuses on reviewing literature on effective methods in music history teaching, social justice and critical pedagogy in music education, as well as examining the theoretical ideas from Freire, Foucault and Bakhtin.

Frances incorporates numerous teaching and learning activities throughout her course, which are: research-led, with students learning about research in music history i.e., the content; research-orientated, with students learning about what music historians do and working with primary sources, manuscripts and editions; research-tutored, with students critiquing music history research, particularly the canon and how it has been presented in curricula, textbooks and on the concert platform, and critiquing each other’s work in peer-assessed presentations; and research-based, with students engaging in independent research about a ‘missing’

composer and making connections with the mainstream.

The findings of her research indicate that, through focus groups, students show increased interest and engagement in the course content and in the mode of assessment. Findings also show, through critical incident questionnaires, the value of continuous evaluation of the course and reveal insecurities and difficulties encountered by the students as the course progresses.

Frances has already disseminated her initial findings from this research project at the Teacher Education Advancement Network conference, the Society of Music Educators in Ireland conference, and to colleagues, via the College's Summer Research Symposium. She is currently working on a second cycle of data collection.



CASE STUDY 2

Julie Hamilton



Julie Hamilton is working on a research project that is titled “Student Hopes: Achievement, Research, Equity And Diversity”. It aims to explore how teacher educators can prepare and support student teachers to negotiate and engage with challenges of educational underachievement while on school placement. This is to raise awareness of the potential to change and influence educational trajectories and to impact positively on educational outcomes through positive and active social justice that is underpinned by pedagogy. A greater appreciation of these issues, as well as possibilities offered by such research, has led Julie to place a greater focus on social justice issues within her teaching, particularly as they relate to students’ preparation for classroom teaching.

Her research is two-fold, utilising an action-research approach that explores the student teachers’ understanding of teacher agency, educational engagement, achievement and attainment. In the first strand, student teachers are introduced to concepts of sociology and social justice within education, and participate in focus groups based on these topics. In the second strand, the student teachers themselves act as

researchers, exploring these same concepts within their practice, with their pupils as the participants.

This research project is anticipated to have multiple benefits for Julie, as a teacher educator and more widely. The findings may inform student teachers in their preparation for school experience, with a focus on making connections between the theoretical elements of their initial teacher education programme and their daily pedagogy, as well as practice. In addition, it is anticipated that the project will provide an example of how student teachers can be researchers of their own pedagogy and practice; in this case by using age-appropriate methodologies that engage and enable pupils to articulate their views on various issues using a student voice approach.

Julie, who is collaborating with colleagues from Marino Institute of Education, has had her research featured at the Standing Conference on Teacher Education North and South, which funded the project with the Shared Island Unit. She has also presented it to colleagues during the College's annual Summer Research Symposium.



CASE STUDY 3

Prof Martin Hagan

Dr Claire Connolly



Prof Martin Hagan and Dr Claire Connolly, along with colleagues from Marino Institute of Education, are working on a research project that is titled “Determining Student Teachers’ Engagement With, And Application Of, Educational Research To Enhance Professional Practice In Two North And South Teacher Education Institutions”. It aims to: investigate how student teachers engage with and in education research during their initial teacher education programmes; determine the extent to which student teachers apply their research knowledge and experience during professional placement; and discover how teacher education programmes best support students to apply their research during professional placement.

Integral to their teaching, Martin and Claire are keen to gather evidence of students’ understanding of what is meant by a research-based profession and of how students apply their research during professional practice. They are generating data from students of initial teacher education that investigate their understanding of and application of research in practice. The purpose is to identify a pattern and then to explain the pattern, using in-depth data drawn from a subset of students.

A mixed-methods approach is used to provide a holistic account of student engagement in and with research. First, surveys are undertaken with final year students to provide a contextual backdrop. Next, students' practical engagement with research during their professional practice is explored through the use of focus groups, the data from which are then analysed using an inductive and hermeneutical approach.

Key findings address students' subject and pedagogical knowledge, research literacy and their application of research to practical experience within the professional context.

Martin and Claire have already presented their findings from the first round of data collection at the Educational Studies Association of Ireland conference and are working on new data. Their research, funded by SCoTENS, informs their practice in preparing students for and engagement with research, particularly in the classroom and school contexts.



CASE STUDY 4

Padaí de Bléine



Padaí de Bléine is conducting research on a project titled “Iniúchadh ar chur chuige na ceardlainne maidir le haistriúchán ó Bhéarla go Gaeilge”. It investigates the use of workshops to teach translation studies in Irish. It involves action research with BA students in the third year of their study and aims to determine if the workshop approach to translation from English to Irish benefits those students. It is anticipated that the findings of the research will provide Padaí with another method to develop translation techniques with students. It brings grammar points and translation together, with data from students being gathered by questionnaires, focus groups and videorecording.

Translation from English to Irish forms a part of the assessments for BA students and they find this to be a challenging aspect of their module. In his research, Padaí sets out to gather more qualitative data on the students’ views of translating from English to Irish and on the structured workshop approach. He follows the suggestion of Fitzpatrick and Hunt (2019) regarding the design and format of the workshop and has a structured piece of prose for the students to translate, with reference books and website links available, so they can use them to guide

their translation. The students are familiar with the references given, as they come from literature and grammar books studied over the course of their degree programme. The translation from English to Irish has specific points of grammar and contains certain vocabulary and phrases that can be sourced by using the references provided. The focus of the research is to find out the merits or otherwise of this approach through student participation and feedback.



The research methodology involves a questionnaire to gather the students' views on translation in a general sense at the outset. The students are given a questionnaire with rolling scale answers and open-ended questions, which seek to gain their views on the area of translation from English to Irish and on the current approaches to delivering this aspect of their module. The students take part in a structured workshop that involves translating a piece of prose from English to Irish.

They are provided with resources required to complete this task, which is conducted in a group format. The workshop is recorded with the consent of the participating students. Following the completion of the translation, the students take part in focus groups in the

same week as the workshop. The in-depth focus groups ascertain the students' views of the workshop approach and find out the merits or otherwise of it. The students complete another short questionnaire, with the rolling scale answers and open-ended questions, to see if their views of translation have changed considering the new approach.

Padaí has had a corresponding paper of the research published in the peer reviewed journal *Léann Teanga: An Reiviú* and has also presented his findings to colleagues at the College's Summer Research Symposium.



CASE STUDY 5

Geraldine Parks



Geraldine Parks is currently conducting research, as part of her doctoral study, on a project titled “Implementing Mastery Approaches To Reduce Maths Anxiety Using Pedagogical Action Research”. Geraldine suggests that by finding ways to alleviate maths anxiety, thus preventing teachers passing it to students, is a significant issue to address. By recognising that anxiety in students can influence achievement, her research considers whether similar feelings in future educators would influence the nature and quality of teaching, therefore raising the possibility that teachers who experience maths anxiety can affect students’ thoughts and feelings.

Geraldine’s project utilises pedagogical action research for the improvement of practice in education. It explores the impact of mastery teaching on the thoughts and feelings of student teachers as they complete a ten-week programme on the delivery of the primary mathematics curriculum. It involves second-year BEd primary students, who are taught using a new pedagogy of maths mastery. One group of students experience teaching as usual, while another group follow the same topics and syllabi, which are delivered through a mastery pedagogy. Each week, data are collected from every student in both

groups measuring the four constructs of: confidence and competence; attention and concentration; motivation; and levels of anxiety. Twelve students are also interviewed mid-way during the term to obtain feedback on teaching styles and on what would make things better for them. Adaptations are put in place and students are then monitored to see if the experiences change within the four constructs.

Initial findings from Geraldine's research suggest that mastery teaching may alleviate maths anxiety and increase confidence in teaching mathematics. She argues that if mastery pedagogy goes some way to obtaining this goal and helps raise standards in schools, it may make a valuable contribution to education. The outcomes of her research enable a number of things to be improved in her teaching.

These include: which pedagogies cause least anxiety, more confidence, better motivation and increased concentration; which topics in numeracy cause students most anxiety; how confidence relates to attendance; and the best teaching styles and methods based on student feedback.



As a result of her research, Geraldine was invited to present her findings at the Developing Awareness of Maths Anxiety in Ireland Workshop, organised by the Mathematical Resilience Network, and also gave a presentation at the Standing Conference on Teacher Education North and South.



CASE STUDY 6

Ciaran Walsh

Dr Elaine McLaughlin



Ciaran Walsh and Dr Elaine McLaughlin are working on a research project that is titled “Value Orientations Of Teacher Educators In Physical Education”. It aims to determine the value orientations of physical education teacher educators and the level at which these value orientations are displayed in their professional practices and programmes of study, namely their teaching approaches, the content they focus upon, and the ways in which they carry out assessment.

This topic of interest connects directly to the teaching of their courses and helps them gain a shared understanding of how value orientations can assist them in fostering a deeper understanding of curriculum texts. In turn, this supports their professional practice with students of initial teacher education.

Using collaborative self-study methodology, Ciaran and Elaine draw upon examples from six physical education teacher educators teaching different primary pre-service programmes. Data consist of: a value orientations inventory, pre- and post- a physical education module; three reflective writing tasks, each over the course of the module with feedback provided by a critical friend; one meta-reflection each; and a final group discussion.

All qualitative data are coded using the constant comparative method to identify themes. The analytical process is carefully designed to facilitate the voices of the researchers by building in a critical questioning of their own values throughout the research.

Ciaran and Elaine are collaborating with colleagues from Dublin City University, Marino Institute of Education, Stranmillis University College and Maynooth University on this SCoTENS-funded research project and have had their research featured at numerous conferences. These include the World Congress of the International Association for Physical Education in Higher Education, as well as the College's Summer Research Symposium. They are currently working on papers for submission to academic journals.



CASE STUDY 7

Gerry Trainor

Julie Hamilton

Dr Barry Doherty



The mathematics course team are collaborating on a research project titled “Effective School Mathematics Tasks: Developing Understanding Among Trainee Teachers”. The project explores student teachers’ perceptions of what makes a good mathematics classroom task and how/why this develops over the course of their initial teacher education.

Associated literature documents the central importance of the role of the teacher in supporting the success of classroom mathematics tasks. Accordingly, this project provides greater insight into student teachers developing professional judgement and informs teaching in this area on the mathematics course. Both qualitative and quantitative data have been collected, via an online questionnaire, from students at each stage of the BEd mathematics course, as well as from recent graduates.

The findings indicate clear consensus in the task features to which student teachers assign priority: mathematical meaning; differentiability; and curricular relevance. It is evident also that student teachers’ views evolve over the course of their studies, with both school experience and subject application courses contributing to this development. In light of this, subject application teaching

is placing increased focus on developing students' professional judgement.

The research team intend to submit an article for publication and to present their findings at the annual Summer Research Symposium.



CASE STUDY 8

Dr Matthew Martin

Karen McGivern



Dr Matthew Martin, in collaboration with Karen McGivern, is working on a SCoTENS-funded research project titled “Inclusion Of Newcomers: Video Diaries In Initial Teacher Education”. It focuses on the topic of inclusivity and belonging among newcomer children in schools in Ireland, north and south.

This project engages with students studying initial teacher education programmes and has three main aspects. The first is a baseline survey to gather students’ current understanding of their role as ‘place-maker’ for newcomer children and to capture the opportunities, as well as the challenges, they envisage as student teachers in the classroom. The second involves students’ involvement in a conference to explore belonging through the eyes of newcomer families, community leaders, school representatives and experienced teachers. The third relates to students creating video diaries, which document their reflections on belonging after the conference, including any changes to their understanding.

A sharing event is also to be organised, allowing a selection of students to meet and discuss the results of the research. The research proposal involves consultation with leaders in schools that have a high proportion of

newcomer children and with members of community organisations that support immigrant communities. A review of the relevant literature was the starting point for the research project and it informs work with students in subject application, on school experience, and in the teaching of literature that addresses issues of multi-culturalism and cultural belonging. The digital dimension also informs the teaching of English in that students are asked to create digital video artefacts.

The planned outcomes for the research project, in partnership with Dublin City University, include producing a research report, presenting at an education conference, as well as disseminating findings at the annual Summer Research Symposium and via other outlets.





ST MARY'S UNIVERSITY COLLEGE

191 Falls Road
Belfast BT12 6FE

Tel: 028 9032 7678

Web: <https://www.smucb.ac.uk/>

