Defining 'Research Inspired Teaching' and Introducing a Research Inspired Online/Offline Teaching (RIOT) Framework for Fostering it Using a Co-Creation Approach

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DEFINING ‘RESEARCH INSPIRED TEACHING’ AND INTRODUCING A RESEARCH INSPIRED
ONLINE/OFFLINE TEACHING (RIOT) FRAMEWORK FOR FOSTERING IT USING A CO-
CREATION APPROACH

Abstract 300 words

Background
There are calls to ensure that evidence-based practice is enabled for every midwife and
nurse by means of education, research, leadership and access to evidence. Concurrently,
there is a global call for universities to foster ‘Research Inspired Teaching’. Yet such teaching
must first be defined and may usefully be developed, delivered, and evaluated as part of a
framework approach.

Objective
To co-create a uniform definition of ‘Research Inspired Teaching’ and a framework for
developing, delivering, and evaluating it.

Design
A co-creation approach was taken, underpinned by the interpretive framework of
communal constructivism.

Setting
The West Midlands region of the United Kingdom

Participants
The sampling strategy was purposive, whereby those who had reportedly actively engaged
in ‘Research Inspired Teaching’ were invited to participate. The resulting multidisciplinary
team of co-creators (n=14) included students, educators, and self-identified facilitators of
‘Research Inspired Teaching’.

Methods
The co-creation of outputs was facilitated by two online co-creation workshops. All creative,
written, and verbal contributions made by co-creators were collected as data and used to
‘co-define’, ‘co-design’ and ‘co-refine’ outputs. To enhance credibility, triangulation was
used throughout. A final review of results presented in this article via all co-creators
concluded this process.

Results
This article presents a definition of teaching, a definition of research, a founding definition
of Research Inspired Teaching and a guiding framework along with 10 core principles for
developing, delivering, and evaluating it.

Conclusions
These outputs may be useful for both midwifery and nursing faculties, providing common
language for collaboration and inspiring further developments and research. In pursuit of
excellence, further international research could usefully investigate how these outputs may
further bridge the Research-Teaching Nexus in Higher Education, and partner with other universities looking to cultivate, evidence and promote their own ‘Research Inspired Teaching’ in practice. In this pursuit, inter-university partnerships would be welcomed.

Keywords
Research-Teaching Nexus; Inquiry Based Learning; Student Experience; Innovation; Teaching; Higher Education; Nursing; Midwifery

Introduction
There is a need to ensure that future midwives and nurses are leading in research and evidence-based practice globally (UNFPA. 2021, McCarthy et al. 2020). The World Health Organization has set its fourth priority area as promoting evidence-based practice and innovation. It asserts that evidence-based practice is every nurse’s and midwife’s concern and should be enabled by means of education, research, leadership and access to evidence sources (World Health Organization. 2015). Yet whilst evidence-based practice remains essential for the delivery of safe and effective care (Yancey. 2019), there are significant evidence to practice gaps in the delivery of increasingly complex care (Hickman et al. 2018), and a need to enhance the effective application of research into curricula (Kumah et al. 2021).

In answer, there have been calls for the creation of applicable guiding frameworks (Skela-Savič et al. 2020). Such frameworks may also reduce teaching ambiguity and better retain new faculty staff as they are challenged in their transition from their clinical to academic role (Hoffman. 2019).

Midwifery and nursing educators may presently engage students via ‘research-informed’, ‘Research-based’ ‘research-led’, ‘research-orientated’ (Griffiths*. 2004), and the latterly introduced ‘Research-tutored’ teaching (Healey. 2005a). Yet the Universitas 21 global network (Universitas 21. 2015), and other thought leaders in this area (Szabó. 2018), have declared that universities of the 21st Century must now work together to foster ‘Research Inspired Teaching’ (RIT). Nevertheless, in order to engage student midwives and nurses in ‘RIT’, it may be useful to first define what it is. Such definitions are important, as they enable us to better construct arguments and generate data on a practice, in ways that we might otherwise not be able to (Sperka. 2020). It will then also be important to establish how Higher Education Institutions (HEIs) might develop, deliver, and evaluate the occurrence of
‘RIT’ in midwifery and nursing education. Considering the above, there is now an opportunity to co-create a new guiding framework in this task.

Background

Building foundations with Florence Nightingale in the 1800s and evolving from within the medical community in the 1970s, research and evidence have been used to inform and enhance clinical practice throughout history. The integration of both research and evidence is now considered critical in both undergraduate and graduate midwifery (Kemp et al. 2021), and nursing education (Mackey and Bassendowski. 2017).

The relationship between research and teaching has evolved and been influenced by range of factors thus far (Healey. 2005b). Yet combining research and teaching activity within universities is a relatively recent construct, which only began to develop in the early 19th century (Elton. 2001). More recently, Boyer (1990) developed a typology of scholarship to encourage a focus on the synergies between research and teaching. This model identified four ‘scholarships’:

- Discovery (advancing knowledge)
- Integration (synthesising knowledge)
- Service or engagement (advancing and applying knowledge)
- Teaching (advancing and applying knowledge about how to teach and promote learning).

The management of the teaching–research nexus in practice can be complex (Geschwind and Broström. 2015) and may be even more so for midwifery and nursing educators having to work with both internally and externally regulated and packed curriculums. Existing frameworks such as the ‘Quality Matters’ rubric (Shattuck et al. 2014), and the ADDIE model (Aldoobie. 2015) may guide midwifery and nursing educators in designing courses, yet their somewhat restrictive nature may mean that too much focus is placed on simply ensuring that basic requirements are met. As such, there is now an opportunity for new frameworks
to promote freedom and flexibility in going beyond the basics to guide such educators in developing, delivering, and evaluating ‘RIT’ in complex contexts.

In England, ‘RIT’ has become a pillar in educational strategy and a ubiquitous phrase (Raven. 2018). Nevertheless, it is commonly referred to and/or presented in case studies rather than defined, developed, delivered, or evaluated as part of a framework approach (Simmons. 2019). Therefore, the overuse of this phrase is a possibility, leading to its thoughtless application. Considering the above, the aim of this research was to co-create a uniform definition of ‘RIT’ and a framework for developing, delivering, and evaluating it.

**Methods**

This co-creation was underpinned by the interpretive framework of communal constructivism (Leask and Younie. 2001), where co-creators were brought together for the communal construction of new knowledge in an emerging area. It was guided by the ‘co-define, co-design, co-refine’ methodology established by the Co-Creating Welfare project, and funded by Erasmus+ (Pearce, Gemma and Magee. 2018, Pearce, Gemma on behalf of the CoCreating Welfare Team. 2019). Co-creation aligned with our aim and was chosen as a known and a successful method used in similar nurse education research elsewhere (Duers. 2017).

Co-creator recruitment began after ethical approval was granted internally via the lead author’s HEI (Project P106232). Our sampling strategy was purposive. Potential co-creators were sent information about the project via email and were invited to participate if they were reportedly actively engaged in ‘RIT’, within case examples of RIT (Simmons. 2019), or via early academic discussions.

Once informed consent was secured, each co-creator was given access to a virtual co-creation workshop room and invited to visit the co-creating welfare project website
(http://ccw.southdenmark.eu/) to become familiar with the principles of co-creation. Those who gave their consent to participate were invited to share contributions prior to the first workshop and as they were inspired to do so. These contributions were then presented back to co-creators as stimulus for discussion and further co-creation during the two subsequent co-creation workshops undertaken.

**Data Collection**

Data were collected via two co-creation workshops recorded and hosted online using ‘Big Blue Button’ webinar software, where co-creators used a variety of voice, text, audio, and graphical tools to share ideas and co-create outputs including a uniform definition of ‘Research Inspired Teaching’ and a framework for developing, delivering, and evaluating it. The research team (who were also co-creators) collected these recorded data for further prototyping and co-refinement.

**Workshop One: PART I - Co-Define**

This was a two-hour online workshop hosted by SP and MB on the 3rd of June 2020. Activities focused on ‘co-defining’ how co-creators may achieve the aim associated with this project.

**Workshop One: PART II - Co-Design**

An early conceptual definition and framework prototype inspired by co-creator contributions made prior to the first workshop were presented as stimulus for discussion. Thereafter, co-creators were invited to co-design the definition and framework together. Subsequently, all contributions were used to construct more formal prototypes of the newly ‘co-designed’ definition and framework, with poignant quotations, tables and figures used to present them back to all co-creators to reflect on one week before workshop two.
**Workshop Two: Co-Refine**

This was a two-hour ‘co-refining’ online workshop hosted by SP and MB on the 1st of July 2020. The newly ‘co-designed’ prototypes were finalised via an iterative succession of annotated co-refinements in partnership with co-creators.

**Data Analysis**

As in other co-creation of this nature (Huijnen et al. 2017), no actual analysis took place on the content of the outputs. Purely an understanding of the data was necessary to craft these into the outputs presented here as results. In order to add rigor and credibility to this process, triangulation was undertaken discursively throughout (Denzin. 2012). This triangulation guided an iterative process of assimilating the co-created outputs. To conclude this process, all co-creators were given an opportunity to review and refine the presentation of these co-created outputs submitted as ‘results’ within this article.

**Results**

A total of 14 interdisciplinary co-creators joined in meeting the aim of this project. Due to the nature of real time co-creation, it was not possible to identify individual contributions. Table 1 presents the names and affiliations of the final co-creation team in alphabetical order. Two co-creators were also students during the earlier stages of conceiving of and engaging in this co-creation.
Table 1: The Co-Creation Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Theo Mojtaba Ammari</td>
<td>Senior Lecturer in Academic Development lead on Assessment at the University of Sunderland, London</td>
</tr>
<tr>
<td>Dr Martin Bollard</td>
<td>Head of Nursing at the University of Wolverhampton</td>
</tr>
<tr>
<td>Professor Megan Crawford</td>
<td>Director of Postgraduate (PG) Programmes, Centre for Global Learning, Education and Attainment (GLEA) at Coventry University</td>
</tr>
<tr>
<td>Alun DeWinter</td>
<td>Research Fellow, (GLEA) at Coventry University</td>
</tr>
<tr>
<td>Stacey Davies</td>
<td>Head of Content at Coventry University Online</td>
</tr>
<tr>
<td>Dr Douglas Howat</td>
<td>Dean of Undergraduate Studies at Coventry University</td>
</tr>
<tr>
<td>Professor Megan Crawford</td>
<td>Director of Postgraduate (PG) Programmes, Centre for Global Learning, Education and Attainment (GLEA) at Coventry University</td>
</tr>
<tr>
<td>Alun DeWinter</td>
<td>Research Fellow, (GLEA) at Coventry University</td>
</tr>
<tr>
<td>Stacey Jones</td>
<td>Associate Professor and Curriculum Change Lead within the Curriculum 2025 team at Coventry University</td>
</tr>
<tr>
<td>Dr Seán McCartan</td>
<td>Associate Professor Automotive &amp; Transport Design, Faculty of Arts and Humanities (FAH) at Coventry University</td>
</tr>
<tr>
<td>Luca Morini</td>
<td>Research Fellow (GLEA) at Coventry University</td>
</tr>
<tr>
<td>Tammy Mudd</td>
<td>Academic Development Lead, Faculty of Business and Law at Coventry University</td>
</tr>
<tr>
<td>Sally Nuttall</td>
<td>Assistant Professor of Adult Nursing and blended nursing course director and development lead (BSc Adult Nursing) at Coventry University</td>
</tr>
<tr>
<td>Dr Sally Pezaro</td>
<td>Principal investigator, Fellow of the Royal College of Midwives (FRCM) and Assistant Professor within the Centre for Arts, Memory and Community (CAMC) and the School of Nursing, Midwifery and Health at Coventry University.</td>
</tr>
<tr>
<td>Ian Upton</td>
<td>Academic Developer at Coventry University</td>
</tr>
</tbody>
</table>

Figure 1 offers an example as to how co-creators used the technology with which the online workshops were hosted to represent themselves. This figure also offers insights as to how co-creators engaged in the co-creation process alongside their other text and voice-based contributions.
Definitions

Prior to the co-creation of a definition of ‘RIT’, co-creators surmised that definitions of both ‘teaching’ and ‘research’ were required to provide context. These were defined by co-creators as follows:

Teaching involves “an intellectual partnership between the educator and the self-actuated learner, where both are engaged in co-creating, understanding, critiquing and applying knowledge to particular contexts, thereby developing new transferable skills and understandings together.’

Co-creators reflected that research forms a foundation of the self-actuated learner or ‘student’ learning experience, and that research drives learning. Research is considered a
“verb, rather than a noun”, and students are doing research all of the time, though it might not always be recognised as such, considering that previous distinctions have been made between problem-solving projects, systematic inquiry projects (literature reviews), and formal research (Parse. 2016). To clarify this paradigm, if students partake in 'active learning', where they actively engage in problem solving and the course materials via case studies, discussions which promote disruptive thinking and role-playing scenarios for example, then they are doing research. Thus, whilst also being inclusive of those using methodologies set by specific professional fields and academic disciplines, co-creators defined research as:

‘a process of inquiry which draws insights from different perspectives and practices and leads on to the creation of new knowledge or the use of existing work in new and creative ways to generate new understandings through critical analysis to inspire, instigate positive societal changes and inform both practice and innovation’

In co-creating a definition of RIT, co-creators were looking toward a succinct definition which may be universally applicable. Thus, co-creators defined ‘RIT’ as follows:

Research Inspired Teaching is: ‘Where research is embedded throughout all teaching, learning and assessment activities and content as part of an authentic, disruptive and evidenced-based exploration, in which both self-actuated learners and educators are committed and inspired toward critical thinking and the co-creation of innovative new knowledge, understandings, transferable skills and ‘real world’ impact together’.

The RIOT Framework

Co-creators of this framework reflected that it may be used as a “benchmark of expectations”. In naming this framework, co-creators added the phrase ‘Online/Offline’ to emphasize its applicability in both realms. This addition was also considered to form an
acronym-as-analogy, which worked aptly to describe the positive disruption (RIOT) which co-creators anticipated this framework might bring. They subsequently highlighted that the newly named ‘Research Inspired Online/Offline Teaching’ (RIOT) Framework was intended as a universal tool for both analysis and reflection. It is aimed at those looking to engage in ‘RIT’ and is offered to provide a more consensual standpoint on what it constitutes. Co-creators further identified 10 core principles of the RIOT Framework. These are presented in table 2.

Table 2. The 10 Core Principles of the RIOT Framework

| Establishment of multilateral relationships between teaching and research activities |
| Evidence based decision making |
| Academic freedom |
| Innovation |
| Positive disruption |
| Bridging between research centres and schools in HEIs |
| Authenticity |
| Maintaining the authority to teach through scholarly activities, research and/or practice |
| Resulting ‘Real world’ impact |
| Co-creation |

Those who engage with the RIOT framework are invited to embrace academic freedom, where both the educator and the self-actuated learner are entrusted and empowered to move away from inflexible learning structures and apply more individualised approaches.
Being positively disruptive in replacing established models, paradigms, innovations, and systems with improved ones is encouraged. The four phases within the RIOT framework are presented in figure 2. This framework represents an active cycle, in which the accompanying definition of ‘RIT’ should always be observed.

**Figure 2. The RIOT Framework**

![RIOT Framework Diagram](image)

**Phase One: Identify Evidence Based Need for RIT**

Here, co-creators emphasized a need to “reflect on why we need this [RIT] on a societal level, or for the public good.” Indeed, whilst the direct impact of educational interventions designed to support the implementation of research evidence into practice on clinical outcomes is difficult to measure, they do show promise in improving patient outcomes (Wu et al. 2018). Thus, in the case of midwifery and nursing education, the provision of RIT would be justified in meeting a societal need.

In this phase, the evidence-based need for RIT should be defined and communicated from the outset. This may be generated by evidence gathered via research either internally...
and/or externally, or may simply draw upon evaluative feedback, where an evidence-based knowledge gap is identified. Prospective and existing practice and industry partners may also be involved in understanding the need for RIT. For example, where the health services present an evidence-based need for increased numbers of qualified staff. There may also be an evidence-based need for bespoke RIT where specific challenges in healthcare remain. During this phase of applying the RIOT framework, it would be useful to inquire as to which specific gaps in knowledge exist and need to be filled.

**Phase Two: Co-create the Evidence-Based RIT Curriculum**

In developing the RIT curriculum, co-creators reflected that curriculum designers “need to be co-creating with the people who it will impact” in order to “avoid a ‘doing to’ approach”. Ultimately, there is a need for co-creation to “ensure all stakeholders are part of it”, bringing their own evidence base, perspectives, and expertise into curriculum design. Indeed, such engagement is evidenced to have significant potential to advance evidence-based practice, teaching and its application in clinical care (Lehane et al. 2019). Exploring the ways in which research centres might use their leverage and play a meaningful part in co-creating curricula is also particularly encouraged during this phase.

It is important to identify key stakeholders and expertise early on to engage them in co-creating RIT curriculums. Here, co-creators should identify and inquire as to how the programme or course of study should flow, and what topics it may cover. For example, a professional body and/or partner healthcare organisation may evidence a need for new subject specific skills to be included for their future workforce. In line with other recommendations, quality and impact should also be embedded throughout RIT curriculums (Wu et al. 2018).
**Phase Three: Co-create Evidence-based teaching, learning, assessment, and content.**

In this phase, co-creators also reflected on the need to co-create evidence-based teaching, learning and assessment activities, and content to “provide students with the opportunity of being involved in the design of learning and formative assessment through their learning journey”. This is also evidenced to be an effective approach in higher education elsewhere (Chemi and Krogh. 2017).

To link teaching and research, co-creators highlighted that it is also important to ensure that all teaching, learning and assessment activities and content are inspired by evidence gathered via research. Alternate expert consensus also concurs that educators need to be able to ‘draw out evidence-based components’ from any and all aspects of curriculum content, including its incorporation into assessments and examinations for the most successful learning and clinical practice outcomes (Lehane et al. 2019).

Alternatively, there have been recommendations posed to assure ‘appropriate’ evidence is used to guide teaching, learning and practice (Yancey. 2019). Here, co-creators proposed that educators engaging in RIT should seek to gain inspiration from both pedagogical and subject specific sources of evidence. In support of academic freedom, co-creators also asserted that it is for co-creators of RIT to decide which types of evidence are most appropriate to use for this task in their own context.

Co-creators declared RIT should be “inspirational and authentic”. Elsewhere, facilitating such teaching in a dynamic and interesting manner has also been considered essential (Lehane et al. 2019). It is also important for any research inspired teaching, learning and assessment activities to be “conceptually meaningful to engaging students”, and enable an appreciation for the power and purpose of research and evidence in practice. Such activities
may include increasing student’s exposure to research centres and their activities through buddying systems, mentorship, research internships and secondments in order to understand what researchers do and engage and inspire them in doing research themselves particularly as role models are integral to demonstrating the application of evidence to practice directly (Lehane et al. 2019). In this task, co-creators reflected how it is important to bridge schools, faculties, and research centres in HEIs and develop multilateral relationships between teaching and research activities. An inspiring space must also be co-created for research, along with seminar and conference opportunities for the sharing of it. Positive disruption to the status quo, critical thinking, consideration to the application of knowledge and the development of new skills should be encouraged.

All students “need to develop research skills” in order to engage in any meaningful inquiries. It is also important for students to both 'consume' and 'do' research.” Yet this must “not always be equated to developing them into career researchers”. Nevertheless, it is important to consider that “people need to read, understand and be influenced by research, otherwise it sits on a shelf”. Alternate expert opinion has also asserted that clinical students must be able to identify evidence, understand it and apply it to clinical practice (Lehane et al. 2019). In this sense, research must be visible to students, and it is suggested here that post graduate researchers, clinical researchers and PhD students may be usefully engaged in teaching activities to expose undergraduate midwifery and nursing students to the latest research insights in their subject specific modules. Such activities should aim to inspire future midwifery and nursing leaders in research.

Co-creators asserted that RIT should be authentic in that it is undertaken by someone with ‘real world’ experience in practice. In this sense, there should also be opportunities
presented for authentic RIT to take place in authentic practice based and/or simulated environments. Indeed, the use of clinical examples and scenarios has been repeatedly expressed as one of the most effective instructional practices leading to effective evidence-based practice, where it is particularly useful to encourage students to ask questions, and acquire, appraise and apply evidence directly to clinical decisions (Lehane et al. 2019). To support this, educators should also be encouraged to undertake activities which maintain their authority to teach. The development of mentorship programmes and associate memberships linked to research centres are also encouraged to nurture midwifery and nursing research leaders of the future.

**Phase Four: Conduct Evidence Based Evaluation**

Whilst evidence-based practice remains essential for the delivery of safe and effective care, how research is being taught, sought, interpreted and applied to practice in this context can be obfuscated (Yancey. 2019). Thus, in conducting evidence-based evaluations of RIT, both educators and students may identify the ways in which they can usefully explore, evaluate, improve, refine, and examine the effectiveness and replicability of it empirically. In this sense they may evidence what has or has not taken place along with the creation of new knowledge together.

RIT “should lead to change”, and as co-creators pressed the need for RIT to create a real-world impact for the betterment of society, it will be important to reflect not only on teaching internal populations, as the impact which comes from RIOT should be “much wider than this”. Consequently, evidence-based evaluations conducted during this phase should also aim to capture data in relation to impact, particularly where the agenda for RIT is to
enhance evidence-based practice and thus the delivery of healthcare for improved patient outcomes as it is elsewhere (Lehane et al. 2019).

Conducting an evidence-based evaluation may also provide confirmation of the need for future RIT in subsequent student populations, thus prompting a return to phase one of the RIOT framework. In such cases, educational content, along with any teaching, learning and assessment activities may be updated, augmented, refined, and adapted in response to any new evidence available, and in readiness for the delivery of future RIT. In such cases, teaching may indeed inspire further research.

**Discussion**

There has been a global call to foster RIT, and entreaties to promote research and evidence-based practice in both midwifery and nursing education. In answer, this article presents a founding definition of RIT and a framework for developing, delivering, and evaluating it. Whilst such outputs may be valuable, they are also preliminary, and originate from a single setting. As such, they may not be applicable in all contexts. Equally, whilst the definitions presented here may be valuable in determining what can be said and done (or not) (Biesta. 2004), they may also introduce binaries which may challenge alternate evolutionary pathways towards RIT. In future, it will be important to focus on defining what RIT does, and whether any links between the ten core principles of it exist. Nevertheless, these outputs may be useful in meeting another proposed need to standardise research education for the promotion and development of scientific literacy skills in midwifery and nursing education globally (Devos et al. 2021).

The way in which co-creators here determined to add ‘Online/Offline’ in naming the RI(O)T framework to highlight its applicability in both settings is interestingly analogous to Deleuze
and Guattari’s interpretation, outlined by Jones and Bennet (2017). This interpretation similarly outlines how both online and offline elements sit within the same pedagogical space and imagines this concept as a non-hierarchical ‘rhizome’ in which to deconstruct binary thinking. Future iterations of the RIOT framework may result in augmentations. Yet such an acronym-as-analogy to positive disruption (RIOT) may be powerful in evoking a social imaginary and usefully act as a galvanising signifier for educational reform as has been the case with the use of other acronyms-as-analogy elsewhere (Ball and Olmedo. 2013, Fuller and Stevenson. 2019).

In terms of the 10 core principles co-created, these may be used to guide agendas and strategies for the development of RIT in practice. For example, whilst the ‘establishment of multilateral relationships between teaching and research activities’ and ‘Bridging between research centres and schools in HEIs’ may vary between HEIs, simple pathways to applying such principles may include the provision of placements facilitated for students in research centres and/or research leads delivering lectures including their latest findings. Such activities may also inspire students to embrace careers in midwifery/nursing research and thus align in meeting the global strategic directions for nursing and midwifery 2021-2025 to increase the proportion and authority of future midwives and nurses in senior academic positions (World Health Organization. 2021). Educators may also engage in research activities to meet the core principle of maintaining their authority to teach and similarly contribute to research included in the curriculum.

In context, the core principle of ‘evidence-based decision making’ runs throughout the nursing and midwifery professions (Yancey. 2019). Yet in fostering RIT, it must also be applied to pedagogical approaches and subject materials at every level to avoid the delivery
of outdated teaching, uninformed by contemporary evidence and/or optimal teaching approaches. This also fosters two further core principles co-created here in terms of academic freedom (e.g., autonomy in one’s academic approach) and innovation (e.g., generating something new, smarter, faster, better, more cost effective and high quality) in introducing new content, approaches and knowledge to midwifery and nursing curriculums. Innovation may also arise in this context through the resulting generation of new research inspired knowledge and ideas.

The co-created core principle of authenticity may for example relate to authentic assessments relevant to real-world scenarios as has been suggested elsewhere to better promote skill development and employability (Sotiriadou et al. 2020). Authenticity may also be used to facilitate RIT in other ways. For example, the authentic experiences of childbearing women with hypermobile Ehlers Danlos Syndrome (hEDS) and Hypermobility Spectrum Disorders (HSD) (Pezaro et al. 2020) have previously been used successfully in the co-creation of authentic case studies to facilitate problem-based learning activities in midwifery curricula. Equally, an audio artwork (practice-based research output) instantiating the authentic experiences of healthcare professionals working during the COVID-19 pandemic (www.coventrycreates.co.uk/project/boats-on-an-ocean) has also been embedded in curricula successfully to promote reflection in nursing students.

The core principle co-created here of resulting ‘real world impact’ invites educators to envision, create and capture the resulting changes from RIT, whilst the core principle of positive disruption invites educators and students to move out of their comfort zones and push boundaries. One example of this given elsewhere and suggested to trigger learning and the development of new perspectives, insights and understandings includes inviting those
exploring disability to work in pairs alternating with one pushing and the other occupying a wheelchair (Thompson. 2016). Such activities may also fit well with the core principles of co-creation and real-world impact, as such learning is co-created and may result in ‘real world impact’ (e.g., more compassionate care for wheelchair users).

Whilst this co-creation was undertaken in a single geographical area, the outputs presented highlight a congruence of wider academic philosophy, whereby their content, purpose and application is strengthened via consensus in the wider field. For example, scholars have similarly and previously proposed that in order to develop undergraduate research, integrating it into the curriculum is key (Healey and Jenkins. 2009), that learners must have an opportunity to conduct their own projects and learn from others’ research (Clair. 2020, Park et al. 2020), and that students are better enriched when teaching, scholarship, research and/or professional practice are linked together (Eales-Reynolds and Westwood. 2018).

Moreover, some of the more practical suggested activities put forward within this article are also reflected in the wider literature elsewhere in relation to the research-teaching nexus (Flores. 2019, Visser-Wijnveen et al. 2010).

**Conclusion**

It is hoped that this article may positively disrupt and provoke debate about midwifery and nursing programme curricula and content as well as inspire further developments and research. Whilst the early co-created outputs presented here may provide common language for collaboration, as well as be usefully applied and evaluated in context, our work has limitations with regard to it being conducted within a single geographical area, with a relatively small sample of students, educators, and self-identified facilitators of RIT. Thus, this foundational work could usefully feed into a larger evaluative study, including a broader
diversity of colleagues and students from other HEIs. Such future research could further refine and suitably investigate how these outputs may foster ‘Research Inspired Teaching’ in the Higher Education sector more broadly. In this pursuit, inter-university partnerships would be welcomed.

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