A Process Approach to Developing a Conceptual Framework

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A frequent requirement in research studies is the development of a conceptual framework. Within the literature, one can find several different and alternate conceptual frameworks, all relevant to their specific study. However, guidelines on how the researcher could approach the development of a conceptual framework are less discussed.

This paper will explore the idea, and process of developing a conceptual framework within a specific context. Outlying the challenges, and considerations in developing a conceptual framework for an Initial Teacher Education programme for post-primary teaching. The process developed may be of value to others who are commencing their conceptual framework journey.

Keywords: conceptual framework, research, teacher education, teachers, process approach, development

INTRODUCTION

Conceptual framework development poses a challenge for many researchers, particularly early-career researchers (Straughair, 2019). The paper proposes that the development of a conceptual framework is a process, which can be broken down into a series of steps that researchers could employ to construct their subject-specific conceptual framework.

This paper has been divided into two parts. The first part provides an explanation of the authors understanding of a conceptual framework and the key variables for consideration when developing a framework.

The second part of the paper outlines this process in action. It will use a recently developed conceptual framework for an Initial Teacher Education programme to demonstrate the application and utilisation of the process in the construction of the framework.

PART ONE: CONCEPTUAL FRAMEWORK

(Miles and Huberman,1994, p.18) states that a conceptual framework ‘explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them’ (p. 18). (Ravitch and Riggan, 2017, p.5) agree, explaining that a conceptual framework is, ‘an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous’. It is not knowledge of facts’, but rather ‘soft interpretation of intentions’ (Jabareen, 2009). While often used in research Fawcett (1997) suggests that conceptual
frameworks can be used for other purposes e.g. to guide practice, as a basis for research projects, for pedagogic purposes, and in administrative situations.

The development of a conceptual framework requires a significant engagement with thinking and reflection, asking questions repeatedly of the researcher, their position, the topic, the literature and of the developing framework. As it emerges, it will result in a frame of reference, structure, and logic, supporting the researcher to remain focused on the research project (Marshall and Rossman, 2016). A good framework also explains how it all works together, is connected and presents an argument on the importance and legitimacy of researcher choices (Bringle, Hatcher and Jones, 2010; Miles, Huberman and Saldana, 2014). As the framework is the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs a research study (Miles and Huberman, 1994), the development or construction of a conceptual framework cannot occur at the start of the research journey, it occurs during this journey. Specifically, it occurs once the researcher has gained an understanding of their position, the context, the literature, as otherwise, it will lack the grounding that it needs.

If the researcher or team were to consider that the development of a conceptual framework as a process, then this may reduce this challenging activity into manageable steps, with the acknowledgement that some steps are more difficult than others. At the end of the process is a framework that provides clarity, structure and logic regarding what we are doing and how we can do it.

PART 2: A PROCESS APPROACH TO DEVELOPING A CONCEPTUAL FRAMEWORK, AN EXAMPLE

Within the author’s case context, the intended outcome was the construction of a conceptual framework that would underpin the development and delivery of an Initial Teacher Education (Post-Primary) programme. This programme would be a Professional Master of Education, where the potential student teachers would already have an undergraduate award in a specific field of relevance (Teaching Council, 2017, p.11). The vision was to develop an Initial Teacher Education programme that would meet tomorrows needs.

On exploring how to approach the development of a conceptual framework, the author, like others, was unsure what might be the most appropriate way to do this. Upon reflection, and several false starts, the author considered the possibility of adopting a process approach to the construction of a conceptual framework. This would allow the development of a conceptual framework using a stable, purposeful activity (Nurlankzy, 2019). Within this, the author decided on a stepped process that she believed would facilitate and support the development of a robust, rigorous and relevant conceptual framework. Within each step was an activity that needed to be complete before progressing to the next step. The steps, and what needed to occur at each stage, was informed by the literature, reflection, testing, check and correct. This approach to Conceptual Framework construction is presented below.

<p>| Table 1 | A Process Approach to Developing a Conceptual Framework |
|-----------------|-----------------|-----------------|
| Consider | Activity | Authors question |
| 1. | What is the question that I am trying to answer? <em>This is not the research question, but the question that the research/project began with.</em> | Write it down. | How do we develop and deliver and ITE programme for tomorrows world? |
| 2. | What is my ontological and epistemological position, relevant to this question? How does this relate to my values? | Write this down. | The team and I believe that education should be accessible and available to all. |</p>
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<td><strong>Asking yourself the question: Is researcher bias a significant issue within this question. If yes, the question will need further development.</strong></td>
<td>The case study ethos is the provision of accessible and relevant education.</td>
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<td><strong>3.</strong></td>
<td>What does the literature say on this topic?</td>
<td>Summarise it under headings.</td>
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<td><strong>4.</strong></td>
<td>What <strong>concepts/variables/constructs</strong> frame all the above (Steps 1-3) Consider are these evidenced informed and do they understand and support the original question, goal. If the answer is no, reconsider and amend.</td>
<td>Write your list of <strong>concepts/variables/constructs</strong>.</td>
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<td><strong>5.</strong></td>
<td>Review this information and draw this image, as you understand it. Indicating any relationships within the frame. <strong>Pause, consider and redraw if needed.</strong></td>
<td>Conceptual Framework Image</td>
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<td><strong>6.</strong></td>
<td>Present the frame as themes, concepts, noting relationships between the concepts. <strong>Check and correct is this framework rigorous, reflective, reliable and relevant.</strong></td>
<td>Write it down.</td>
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<td><strong>7.</strong></td>
<td>Produce a conclusion to the conceptual framework and the plan for the framework.</td>
<td>Write it down</td>
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**ITE CONCEPTUAL FRAMEWORK**

The following paragraph will explain in more detail what occurred within each step.

**Step One: What Is the Question?**

The question that underpins a research study or project provides the foundation or backbone of research, giving insight into what the researcher is trying to do and why they are trying to do it (Bryman, 2007). (Janesick, 2000, p.382), advise that research begins with a question, or at least an intellectual curiosity if not a passion for a particular topic. This passion for a topic or development is informed by the researcher’s
philosophical worldview, their epistemologies and ontologies (Crotty, 1998). This provisional question or curiosity will develop over time, but as a starting point gives researchers and teams a tool for articulating the primary focus of the study or project (Agee, 2009). Within the case context, the question the project was wishing to ask and get an answer for is; How do we develop and deliver Initial Teacher Education programme for tomorrow’s world? This question requires an understanding of teaching, education, teaching and learning and the context where the education is to be delivered (Teaching Council, 2017, p. 9). Like other questions, the simplicity of the question does not indicate the depth or complexity of the answer.

**Step 2: What Is My Ontological and Epistemological Position Relevant to This Question? How Does This Relate to My Values?**

The author considered her own ontological and epistemological position, but also explored and critically appraised the position and ethos of the case organisation. The authors and case organisations position is that education should be accessible and available and should be of the highest quality possible. The issue of accessibility brought to the fore that, at a fundamental level, there was limited regionally based educational pathways available to become a post-primary teacher. Specifically, an investigation and review of regionally based progression opportunities concluded that access to initial teacher education programmes in higher education institutions was limited, with only three subject pathways to post-primary teaching in existence. Therefore, unless regionally based students can relocate or commute this career is not available to them (McTaggart, 2020). For many in the case study region, the opportunity to relocate for study at undergraduate or postgraduate level may not be possible. This assumption is centred on the reality that the case region is one of the geographical areas with a concerning deprivation index score at -3.5 mean, well below the national mean of +1.9 (Pobal HP Deprivation Index; Central Statistics Office (CSO), 2018) and as such, a relocation, self-financing, or travel commute may not be a realistic possibility for students.

This reality for many is evident in the deprivation index trend at the postgraduate level, where postgraduate study is currently a more probable pathway for those with a more positive deprivation index (+3.6) than can be found in this region (Higher Education Authority, 2019).

This lesser progression for citizens of this region to postgraduate education is confirmed within the CSO data, which evidences the small regional student number that progress to postgraduate study compared to other regions, with over twice as many students progressing to postgraduate studies in some regions (CSO, 2016).

The resulting impact of these geographical and financial barriers to educational progression extends beyond the person and results in potential homogeneity within fields of study such as teaching, where a lack of student diversity in teacher education, is noted in the National Plan for Equity of Access to Higher Education (2015–2019) (IEA, 2015, p.26). Its potential impact within Initial Teacher Education programmes has been researched and recorded in Ireland and elsewhere e.g. Menter, Brisard and Smith, (2006a), Darmody and Smyth (2016). These authors highlight the fact that the teaching population remains homogeneous, being predominantly white, female of the majority ethnic group and from a particular social class group, which is frequently in contrast to the student population. This does lead to concerns as explained by Keane and Heinz (2015, 16) and others regarding role model teachers, where it is acknowledged that if most student teachers are only from a certain background, then the students are less likely to relate to them or see themselves in their teachers. This sends a certain message about who can progress to higher education and who can be a teacher, increasing the risk of perpetuating disadvantage (Keane and Heinz, 2015).

**Step 3: What Does the Literature Say on This Topic?**

The author explored the key requirements of accessible education, accessible teaching, accessible teaching and learning. Within this, she explored societies understanding of education and who should be educated. The author explored what were the challenges facing education, educators, and students today and tomorrow, leading the author towards literature exploring educational inclusion, diversity, social, cultural, economic capital, public policy and funding. She considered the challenges of becoming an effective educator and it led to the literature on the importance of relationships and engagement of
stakeholders of learning. Exploring this further, the author considered and explored what the literature believed supported quality teaching, learning and assessment. This resulted in the review and consideration of the most effective pedagogy that supports inclusive teaching learning and assessment. Based on a review of the literature a decision was made that co-construction of learning met the needs of this programme. The author reflected, debated, reviewed and considered what all this literature was stating, supporting and indicating, and she concluded that when evidenced-based knowledge and position combined it could support a goal of excellence in education.

**Step 4: What Concepts/Variables/ Constructs Frame All the Above?**

Before the development of the final framework, two previous versions existed. While both versions engaged with the previous ideas, it took further work and refining before the author was confident that it would support the delivery on an Initial Teacher programme to meet the needs of tomorrow’s world.

Specifically, when reflecting on the previous steps and their outputs the author was able to identify early ideas that she considered had the potential to become the conceptual framework. These evidenced informed ideas included the need for accessible education based on reasons of economic capital and geographical access, the need for a renewed societal understanding of education and teachers in education, the importance of relationships with learners to support effective teaching, learning and engagement, the need to understand and respond to sociological, psychological and political factors that impacts on a student’s engagement with their learning, the importance of effective teaching and learning strategies. The author reviewed whether these ideas adequately addressed the question, represented the ontology and epistemology positions, and were reflective of the literature within the field. The author acknowledged that these were evidenced informed and did demonstrate understanding and are in support of the original question, however, the author felt there was a gap and such the answer was no. Consequently, the author undertook a process of reflection, asking where the gap was and concluded that the draft framework spoke to things as isolated factors and independent variables, not as an interrelated piece. It was the combination of the concepts working together which could support the achievement of Excellence in Education. This redrafting resulted in the list below

- Accessible Education
- Engagement- Internally and Externally
- Innovative and Creative Pedagogy
- Evidencing Professional Practice
- Excellence in Education

**Step 5: Draw your Framework**

Review this information and draw this out, as you understand it. Indicating the relationships with this frame. Pause, consider and redraw up to three times.

The drawing step was undertaken twice, with the first draft not clearly demonstrating the interrelated nature of relationships within the framework. The visual representation of the Case Study Initial Teacher Education Conceptual Framework is presented below. The framework adopted a scaffolded approach, with students building their learning and understanding as they progress until they achieve and demonstrate excellence in education.

**Step 6: Present the Frame as Themes, Concepts, Noting Relationships Between the Concepts**

*Ask the Question Is This Framework Rigorous, Reflective, Reliable and Relevant, if Not Check and Correct*

The conceptual framework is presented as themes, which underpin, frame, and are threaded and embedded throughout the case institutes Initial Teacher Education programme, its content, as well as teaching, learning and assessment strategies. The themes Accessible Education; Engagement Internally and Externally; Innovative and Creative Pedagogy; Evidencing Professional Practices; and their relationship to excellence in initial teacher education is evidence-informed and evidence-based. It is a scaffold and spiral approach with ever step building and entwined with the previous one; it also represents a journey towards excellence in education.
FIGURE 1
CASE STUDY INITIAL TEACHER EDUCATION CONCEPTUAL FRAMEWORK

Each step will be summarised in the following paragraphs.

Accessible Education
Accessible education is defined as not only access to a programme of study but also the student teachers’ understanding of access and inclusion within education, schools and classrooms (HEA, 2015). Accessible education is a programme and a model of teaching, learning and assessment, which understands and strives to ensure that every child’s right to quality education is pursued (UN Convention of the Rights of the Child). It meets the needs of students and the student teacher population (O’Sullivan, 2019). It extends beyond making a programme of study available to a region (geographical accessibility) but must ensure the development, understanding, and implementation of inclusive, respectful professional teaching practice (Darling-Hammond 2006; Fleming, 2012; Hick et al., 2019). The above is the core goal within the case context and represents the positionality of all parties.

Engagement - Internally and Externally
Engagement has two key dimensions, looking outwards and internally. The author believes that the added complexity of context within, and about education and its systems, must not be forgotten within any Initial Teacher Education programme. The development of collaborative external relationships with stakeholders such as schools, families, community organisations, and national bodies will promote a greater understanding of education's value. It will model how to negotiate the education system, the impact of national, regional, and local factors on education delivery, and how change can occur. Engagement in these dimensions will also support societies’ understanding of education, education systems, and teachers' identity in professional practice (Wehlage, Rutter and Smith, 1987; Department of Education and Skills, 2016). This will support the longer-term where it will raise the aspiration and educational attainment within its region.

Internal to the school environment, it is necessary to build effective, professional relationships and communities of practice with fellow teachers. This building of a community of practice begins within the higher education environment where students build a community of professional practice with their peers through facilitated critical reflection and dialogue (Herbers, Antelo, Ettling, and Buck, 2011), developing their understanding about the practice, about who they are, about what they know, and about their community of practice and its goals. They will develop this further within school environments, through interactions and collaboration with their teaching peers, moving from peripheral to the community to full participation as they progress -Silva and through their learner experiences (Jimenez Olson, 2012). Student
teachers will also foster positive, engaged, collaborative relationships with students (and their wider family), to understand their context, and to be able to adapt professional teaching practices to meet their needs (Patton and Parker, 2013; Darling-Hammond, et al. 2020). The case institutes Initial Teacher Education programme has considered these engaged collaborative relationships as key and imperative factors to the student teachers’ learning, the success of student learning, the programme, and community and education system. The programme includes and nurtures opportunities to develop these engaged relationships.

**Innovative and Creative Pedagogy**

As part of this accessibility and engagement goal, the initial teacher education programme engages and implements a co-constructed model of teaching, learning and assessment. Specifically, all relevant learning, theories, content, concepts, ideas and practices will be delivered using a learner-centred co-constructed teaching, learning and assessment model (Darling-Hammond, 2006; Petty, 2009 & 2017). The use of this model provides the student teacher with a skill set that they can implement into their school environment, avoiding the risk of apprenticeship of observation (Lortie, 1975). It encourages the student teacher to think, explore, debate, reflect, and consider the most appropriate way to deliver to, and with, their students within any given and modern-day learning experience. This model will allow for active, engaged and ambitious learning, safe trial and error learning for the student teacher, bringing them a step closer to excellence in education (Petty, 2017).

**Evidencing Professional Practices**

Evidenced-based decision making not only underpins our decision making on programme development, content, and evidential delivery. It also aims to instil within the teachers of the future, the ideas and skills of reflective practice (Moran and Dallat, 1995), evidence-based practice, and evidence-informed decision-making within teaching, learning, and assessment. Additionally, the programme promotes and encourages the gold standard of practitioner inquiry research as the model of research into teacher practice, therefore supporting the development of practitioner inquiry research skills that will encourage excellence in teaching practice long after the student teacher graduates (Timperley, Kaser and Halbert, 2014; Charteris and Smardon, 2015).

**Excellence in Education**

The goal of the award is to develop a programme today for tomorrow world, in summary, *Excellence in Education*, as to be a successful teacher requires an understanding beyond the classroom or school. Within the case context the Initial Teacher Education programme, excellence, professionalism, and quality are considered one, where the teacher understands and is committed to education, education as a subject, its structures, systems, and position in society. The goal is for the student teacher to understand the context, question evidence within and on practice, and create and lead change when necessary. The goal also includes exploring the student teacher’s understanding of their extended role, developing competence and skill, engaging in innovative and creative pedagogy, delivering and assessing learning in a meaningful way, and meeting today’s student and tomorrow’s needs. For the student teacher, this is a process, and they will develop, evolve, change, mature and master over the lifetime of the Initial Teacher Education programme. This excellence must be understood and reviewed for it to evolve and respond to the needs of modern-day education, teaching, and learning, as well as teacher education.

During all steps ‘check and corrects’ occurred and the author does consider the framework rigorous, reflective, reliable and relevant.

**Step 7: Produce a Conclusion to the Framework and the Plan for the Framework**

The programme will and has embedded all these requirements of Excellence in Education in all aspects of the programme design and delivery. As this programme is now complete this framework ensured the consideration of the themes identified as imperative in the development and delivery of an Initial Teacher Education programme who prepare student teachers for tomorrows world. The conceptual framework,
rather than constricting, provided freedom and opportunity to develop an idea to its potential within a rigorous and logical process, that could support the project success, authenticity and legitimacy.

CONCLUSION

This paper wished to provide guidance and a process approach to the development and construction of a conceptual framework, which others could use to help them develop their own framework for their research projects. The paper explored and presented how this was possible through a seven-step process, which requires the researcher to be reflective, informed, aware and decisive when undertaking this development. The author used a case example to demonstrate how this successfully worked in practice.

This framework can offer guidance to any research study or project that wishes to use or is required to use a conceptual framework. By breaking this down into a logical and simple process and steps, it may offer a guide to researcher, allowing them to develop their own real, relevant and robust conceptual framework.

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