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# Curriculum Evaluation and Research Framework: facilitating a teaching team approach to curriculum quality

**Jo-Anne Kelder**

University of Tasmania, Hobart, Australia  
Jo.Kelder@utas.edu.au

**Andrea Carr**

University of Tasmania, Hobart, Australia  
A.R.Carr@utas.edu.au

**Justin Walls**

University of Tasmania, Hobart, Australia  
J.Walls@utas.edu.au

The Higher Education Standards (HES) Framework prescribes the minimum requirements for provision of higher education in Australia. Standard 5.3 in particular functions as a driver for continuous evaluation informing ongoing curriculum transformation. This paper presents a conceptual approach and framework for embedding evaluation into course curricula. The Curriculum Evaluation and Research (CER) framework establishes a scholarly regime for routine collection of natural, grade and demographic data that is available for research purposes and quality assuring curricula against the threshold standards in the HES Framework. Additionally, the paper outlines a number of practical resources for use by teaching teams to address sector, institutional and academic expectations of renewal and transformation of curricula through evidence-based curriculum design and teaching practice. This paper reports the initial phases of developing and implementing the CER framework and enabling resources. The CER framework is a design-based approach to curriculum evaluation and research that can simplify data collection and analysis, by ensuring alignment of educational research questions with questions asked by external accreditation agents and questions asked by teachers of their units and the courses in which they teach. It has demonstrated capacity to ensure that scholarship informs and underpins course design, and routine evaluation assures the ongoing development of learning activities and assessment (HES Framework 3.1.2, 3.2.3). The CER framework provides a sustainable and effective approach to engage teachers in a collaborative endeavour of ongoing curriculum evaluation; evidence-based curriculum transformation and embedding educational research into teaching practice as a scholarly approach, ensuring regulatory requirements are met.

**Keywords:** curriculum evaluation, research framework, teaching team.

## Introduction

The Higher Education Standards Framework (HES Framework) 2015 is a legislative instrument within the Tertiary Education Quality Standards Agency (TEQSA) Act 2011. The HES Framework prescribes a range of standards, which represent the minimum requirements for provision of Higher Education (HE) in Australia with standard 5.3, in particular,

functioning as a driver for continuous evaluation informing ongoing curriculum transformation.

This paper presents a conceptual framework and practical approach for embedding evaluation into course curricula. The Curriculum Evaluation and Research (CER) framework establishes a scholarly regime for routine collection of students' data that are available for research purposes and quality assuring curricula against the threshold standards in the HES Framework. Additionally, the paper outlines a number of practical resources for use by teaching teams to address sector, institutional and personal expectations of evidence-based teaching practice and quality improvement. The CER framework provides teaching staff with a practical and efficient method for coordinating activities and integrating individual and collective outputs related to quality improvement (QI), quality assurance (QA) and scholarship (SoTL); it guides data analysis to align with the life cycle of curricula, driving transformation. The inter-connectedness and cyclical nature of QI, QA and SoTL activities and the concept of leveraging outcomes of routine QI activities into QA and SoTL activities is highlighted.

The initial phases of developing and implementing the CER framework are reported alongside outlining enabling resources that have been developed. The range of natural data produced during the process of curriculum delivery are described. Natural data is the data generated by students in the course of undertaking their studies and by staff in the process of developing and delivering curricula and assessing student learning (e.g. assessment tasks, feedback, peer review).

The CER framework has demonstrated capacity to ensure that scholarship informs and underpins course design and routine, planned evaluation assures the ongoing development of learning activities and assessment (HES Framework 3.1.2, 3.2.3). A design-based approach to curriculum evaluation and research (Phillips, McNaught, & Kennedy, 2012) simplifies data collection and analysis, by ensuring alignment of educational research questions with questions asked by external accreditation agents and questions asked by teachers of their units and the courses in which they teach.

We argue the relevance of the CER framework in the HE sector providing a sustainable and effective approach to engage teachers in a collaborative endeavour of ongoing curriculum evaluation and evidence-based transformation. Embedding educational research into teaching practice is a scholarly approach to ensuring regulatory requirements are met.

## **Background**

The recently established HES Framework requires institutions to ensure governance instruments and supporting quality assurance systems are in place to enable monitoring and reporting of courses (from <http://www.teqsa.gov.au> 2015). The HES Framework standards require planned and comprehensive curriculum review, which is an opportunity for an explicitly scholarly approach to underpin design, delivery, review and renewal, and thus ensure transformation for currency and relevance. Alongside requirements specified by the Australian Qualifications Framework (AQF) (Australian Qualifications Framework Council, 2013), it functions as a driver for a course level approach to quality assurance.

A wide range of national HE learning and teaching projects and the work of discipline scholars and fellows has resulted in a growing momentum towards academic

professionalisation and a suite of conceptual frameworks and practical resources (Carrick, ALTC, OLT). The challenge for academics is to curate (evaluate and select from) this body of knowledge; then to apply it to their teaching practice in a way that allows them to measure curriculum, student learning and experience in terms of outcomes, impact and effectiveness.

Responding to this challenge, we developed a conceptual framework and method that enables teachers to demonstrate curriculum meets expected standards using a multi-lens scholarly approach (Brookfield, 1995). The goal was a way of thinking and guidance for a systematic approach usable by a teaching team to address the range of quality agendas in curriculum and teaching.

A key insight was to explicitly recognise that the HES framework and institutional quality management systems primarily reference a course (program of study leading to a qualification); thus the relevant scope of a framework to guide academics is the course and its teaching team. A second was to think of QI, QA, and SoTL as three orientations to evidence-based decision-making for curriculum design and delivery. In this framing, QI and QA are guided by an evaluation plan; SoTL activities are governed by a course-level research plan with institutional ethics approval. It suggests members of a teaching team have differentiated responsibilities to participate in or lead quality activities, depending on the scope of their role.

Ensuring curriculum meets minimum requirements typically involves collecting evidence and reporting actions, outcomes and impact. With the introduction of the HES Framework, reporting on course performance against standards is increasingly the responsibility of course coordinators. Institutional systems provide a quantitative snapshot and trend data, but contextual information and evidence of pedagogical effectiveness and impact is also required. For example, the range of reports expected each year at the authors' institution includes: unit review; course review; course portfolio and; peer review of assessment reports. Supporting evidence is expected through assessment moderation; benchmarking and external peer review of assessment; student surveys and; peer review of teaching.

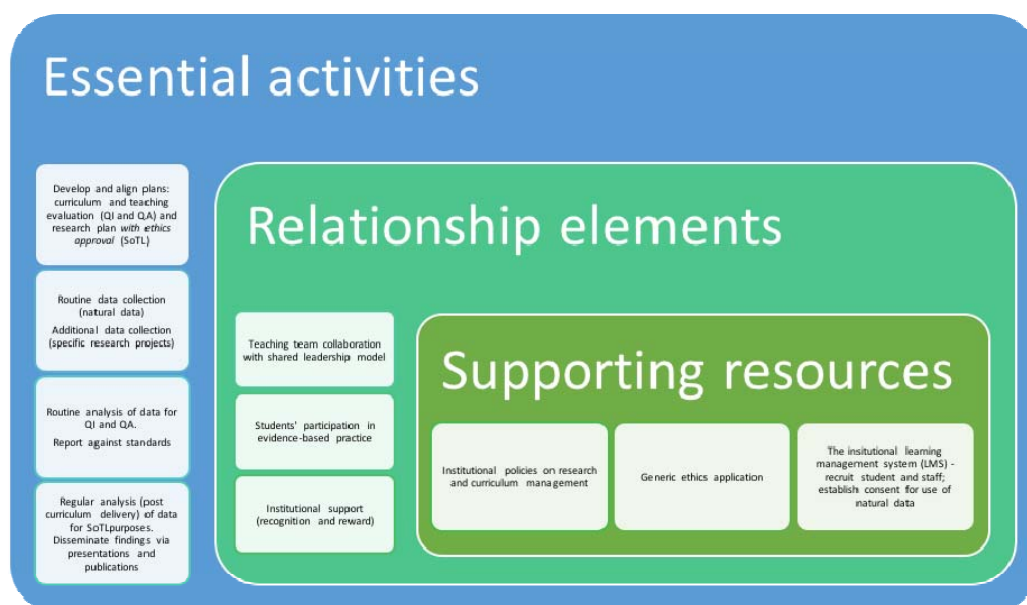


Figure 1: CER Framework

In this context, the CER framework (Figure 1) is designed to facilitate a *teaching team* approach that focuses on whole-of-course outcomes. Additionally, the CER framework enables, through a focus on teaching teams and course curriculum, professional development of early career and/or casually employed teaching staff. This explicitly collaborative and collegial approach is underpinned by a shared leadership philosophy (Pearce, 2004) to curriculum delivery and quality improvement which provides professional development and career opportunities for all staff. It also provides a context in which champions of learning and teaching innovation can align their transformational work with the established evaluation and research that is underpinned by routine collection and analysis of natural data.

At its core, the CER framework is situated as a response to multi-faceted, often competing, requirements of academics in relation to the teaching component of HE academic work. Its design is influenced by a deliberate strategy to engage in collaborative activity, guided by a framework that enables application of what is known and generation of new knowledge for curriculum transformation. The CER framework is deliberately designed to provide a social structure and context in which a culture of evidence-based teaching practice can be built and extend to scholarly outputs. It is a guide for academics in the application of the growing body of knowledge for good practice in HE curricula and teaching (design, delivery, staff capability) and also contributes to that body of knowledge. In summary, it is:

- a way of thinking about the teaching (curriculum design and delivery) component of academic work, and;
- an approach for embedding evaluation and research into teaching at a course level.

It is supported by practical resources that support a systematic and a collaborative approach to assuring the quality of curriculum and enabling curriculum transformation.

The authors' overarching vision is high quality curriculum that is transformative for students. The CER framework incorporates key elements that facilitate achieving this vision:

- collaborative teaching culture;
- shared understanding and goal-directed activities aligned to achieving high quality curricula;
- evidence-based decisions for quality improvement, facilitated by collection of a wide range of data available for analysis;
- planned curriculum review and benchmarking against standards;
- ability to demonstrate impacts on student learning outcomes and experiences.

### **Developing the CER Framework: Approach and Outcomes**

At its core, the CER framework is the result of a design-based research (DBR) approach to curriculum design and delivery that was essentially developmental, incremental and, occasionally, opportunistic (Anderson & Shattuck, 2011; Laurillard, 2012; Phillips et al., 2012). Our DBR approach, applied to three curricula (see Table 1), involved a cycle of plan→do→review→redo. Firstly, establishing a baseline of data, then each design cycle followed by review of outcomes and processes based on further data collection and analysis.

Our method was aligned with the LEPO framework that guides approaches to designing and evaluating student experiences categorised via learning environment, learning processes and learning outcomes (LEPO). The LEPO framework is a “generalized and integrated conceptual framework for learning [that is] pedagogically inclusive” (Phillips et al., 2012, p. 42). It provides a conceptual foundation for rigorous educational research and evaluation of learning

designs that takes into account interrelationships between each element and also the roles of teachers and learners.

A systematic and planned approach enables an organised mix of evaluation and research activities over a life cycle of curriculum. Initially the CER framework focuses attention on evaluation of the learning design until a design is mature (QI and QA). The focus can then shift to researching the effectiveness and impact (SoTL) on students' learning (Phillips et al., 2012).

Our research aim was: to design a systematic plan for educational evaluation and research of a given curriculum that is aligned with the design, delivery and management of a curriculum initiative.

## **Phase 1: Identification and application of key elements of the CER framework**

### *Phase 1.*

Involves identifying key elements of the CER framework and applying them during the process of developing new curricula. The process of design and development was documented for each of three curriculum initiatives and a data collection regime implemented that enabled ongoing evidence-based judgements on the quality of curriculum parts as well as overall learning design. A focus on collegiality ensured that socio-cultural elements were embedded into the CER framework. This enabled all staff (permanent, contracted, casual academic and administrative) to participate in a culture of collaboration and scholarship directed towards quality outcomes.

We adopted and adapted two concepts from Phillips et al. (2012): life cycle of curricula and different orientations towards measuring outcomes, impact and effectiveness of curricula, over the life-cycle of a learning design, guiding maturation and transformation.

### *Life cycle of curricula.*

Curriculum design has a life cycle that is characterised by design, delivery, and renewal or transformation. For all curricula, even mature learning designs that have undergone several cycles of revision and subsequent transformation, under the HES Framework, the expectation is that this cycle will be planned and ongoing, ending only when the course of study is no longer offered.

### *Different orientations towards measuring outcomes, impact and effectiveness of curricula.*

For new curricula, the focus of data collection and analysis is evaluating for quality improvement (QI). Once a curriculum design has been improved to the satisfaction of students and teachers, the focus of measurement shifts to assuring its quality (QA). Phillips et al. (2012) argue that research to measure the impact of the curriculum (on students' learning processes and learning outcomes) should not occur until it has been evaluated from a learning design perspective, refined, and established as a mature learning environment for students, stating that any "evaluation-research cycle is likely to use multiple approaches at the same time" (p. 119). Additionally, to streamline and ensure efficient data collection and management, a principle of collecting data once for multiple purposes was included. That is, data collected for the purposes of informing transformation of learning design (QI), should also be usable for reporting against external standards (QA) and publishing as scholarly outputs (SoTL). Three diagrammatic representations of the relationship between QI, QA and

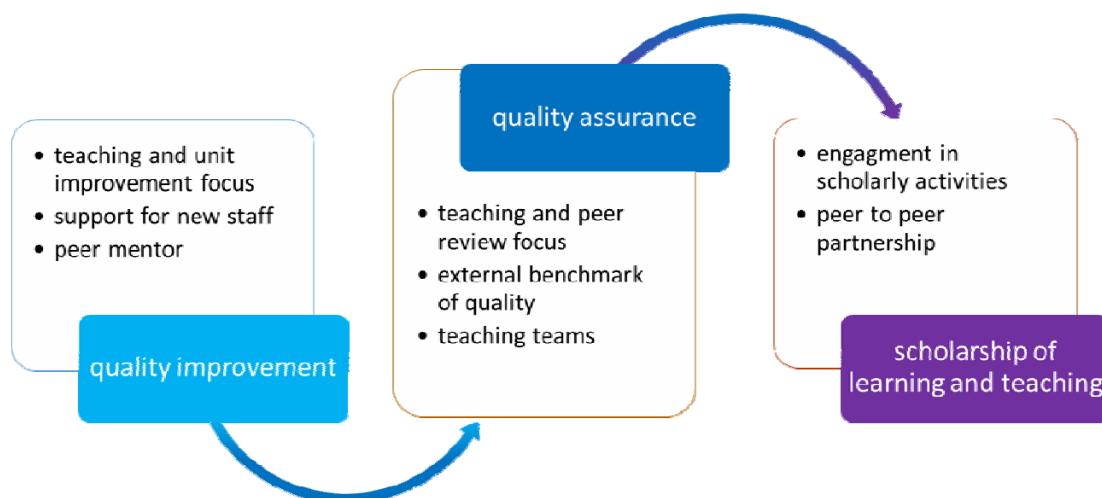
SoTL, in the context of a curriculum life cycle were developed and used as a communication tool (Figures 2 and 3).

Figure 2 (left) highlights the concept of nesting for leveraging the outcomes of routine QI activities into QA and SoTL activities and outcomes. A design-based approach to curriculum evaluation and research can simplify data collection and analysis, by ensuring alignment of educational research questions. Figure 2 (right) highlights the cyclic aspect of QI, QA and SoTL activities and the possibility of coordinating these differently oriented quality activities in order to link and leverage outputs. It also highlights their inter-connectedness in the context of a teaching team focused on quality enhancement of a course. Teaching team members can have different orientations for their teaching and curriculum design, but overall the team effort can be coordinated to ensure all quality activities are supported.



**Figure 2: Representations of the relationship between QI, QA and SoTL**

Figure 3 (below) highlights how, within a teaching team, different staff roles can be oriented to different aspects of ensuring and assuring the quality of curricula, each member having differing levels of interest, and opportunities to engage, in scholarship. However, all are required to participate in QI and QA and the collective activity builds toward overall outputs that include evidence-based changes to the design, reports against standards, and publications related to impact and effectiveness of various aspects of the curriculum.



**Figure 3. Relationship between QI, QA and SoTL activities**

### *Applying the CER framework.*

Having identified and articulated the key concepts underpinning the CER framework, and adopting elements of evaluation design from Phillips et al. (2012), we developed evaluation-research plans for three new curriculum initiatives: a bachelor degree, a massive open online course (MOOC), and a learning module designed to be embedded in a first-year unit of study (2 and 4 week versions). Each evaluation-research plan was translated into an ethics application, to enable scholarly outputs, with QI and the ability to QA as foci. Each learning design was unique to our institution, with little or no opportunity for benchmarking against similar curricula. The research questions reflected the changing emphasis from QI to QA to SoTL throughout the curriculum life cycle. We used a shared leadership (Pearce, 2004) organisational model to facilitate a teaching team culture, enabling collaboration and collegiality, with a range of opportunities for peer engagement (mentoring, review).

Designing evaluation for new curricula required a flexible, opportunistic approach to data collection during the initial phases of learning design. The CER plan developed in Phase 1 distinguished four interrelated, and potentially concurrent, evaluation-research activities: baseline analysis, design evaluation, formative evaluation, and effectiveness research with project management evaluation as a separate, related, activity (Phillips et al., 2012). The intended outcomes were enabling evidence-based transformation of curriculum and providing a reliable and valid evidence-base for evaluating learning environments, outcomes, and processes (LEPO). Integration of educational evaluation and research informing ongoing curriculum design and transformation was the foundation on which longer-term impact and effectiveness (SoTL) research could be conducted.

### **Outcomes and further work**

The key outcome of Phase 1 was a well-developed conceptualisation of the relationship between QI, QA and SoTL in the context of a teaching team being responsible for a coherent body of curricula (e.g. course, major, program, or unit). The three curriculum cases underpinning and informing this conceptualisation (see Figures 2 and 3) formed the impetus for synthesising and codifying the learnings from each case. The case studies represented different curricula types (learning module; course; MOOC). Each increase in scale of *curriculum* design prompted consideration of the impact on evaluation research design related to: increasing scale of data collection; data management and consent management; and managing ethical dilemmas associated with routine collection of big data sets that allow data matching (re-identifiability).

A series of targeted reviews were undertaken, with a view to developing an overarching and generic ethics application template. This was designed to codify the knowledge acquired through the process of translating an evaluation-research plan into a proposal for ethics approval by the relevant ethics committee. Over several iterations, we analysed the content of each case's ethics application from the perspective of: research questions; data types; data management; recruiting participants and establishing consent. We considered relevance, sustainability and scalability (see Table 1).

### *Research Questions.*

The authors reviewed the research aims, research questions and planned evaluation-research activities against the actual questions that preoccupied the teaching team during the development of three curricula (Kelder, Sondermeyer, Phillips & Rothwell, 2012; Carr, Kelder & Sondermeyer, 2014). The outcome of the review was to validate the research aims as sufficiently broad to be applicable to any evaluation of curricula.



**Table 1: Case review outcomes**

<b>Review Focus</b>	<b>Activity and Review Outcomes</b>		
<b>CASE Instance</b>	<b>CASE 1 - module</b>	<b>CASE 2 - course</b>	<b>CASE 3 - MOOC</b>
<b>Research aims</b>	Validation of research aims	Validation of research aims	Validation of research aims
<b>Data Types</b>	Student natural data (qualitative), grade and demographic (quantitative)		
<b>Recruit and Consent</b>	Paper based invitation and consent	Online invitation and consent via Research Room	Online consent via entry invitation
<b>Data Management</b>	Independent third party; Paper-based data transcribed	Recommend digital data where possible; Independent 3 <sup>rd</sup> party	Data analytics
<b>Research Plan Management</b>	Evaluation research committee; Data management protocols in ethics application	Adopt institutional policy and procedures for ethical conduct of research	
<b>2012-2015 Evidence: publications, awards</b>	Institutional program award; Peer reviewed publications	Joint iAward; Institutional program citation; Peer reviewed publications	Joint iAward; Institutional program citation; Peer reviewed publications

The aims embedded in the generic ethics were designed to allow for answering a range of questions that fit under the broad orientations of QI, QA and/or SoTL:

1. To identify factors that impact student learning outcomes in order to inform quality improvement and quality assurance decisions for the course and provide baseline data for measuring the effectiveness of course design and delivery.
2. To measure a baseline, and then routinely measure incremental changes, in students' knowledge, skills and capabilities (learning outcomes) over time, measuring effectiveness of course design and delivery.
3. To identify educational and course elements that assist students to develop professional competence.
4. To assess the impact of the course conceptual framework on the delivery of the course and student outcomes.

We also identified two long term objectives:

1. To evaluate the effectiveness and impact of the course on individual students and cohorts (for different levels of progression and upon completion).
2. To develop an integrated model and guidelines for course design that embeds evaluation-research.

#### *Data Types.*

All data sets were evaluated for relevance and ability to inform learning design improvements (transformation) and also measure impact of the curriculum on students' learning outcomes and learning experience (Kelder et al., 2014). The outcome was a lens for evaluating the intended purposes of the data collection and refining the research questions in response to unexpected insights from this examination of the data sets. The analysis indicated that assessment items are a critical data set for determining achievement of learning objectives.

The review of all data collected from Case 1 (module curriculum) revealed that the ideal data types include natural data, grades and demographic (Kelder et al., 2014).

#### *Recruiting participants and establishing consent.*

This was a significant conceptual and practical challenge due to the goal of routine data collection of all student data over the life cycle of a course. Key requirements of the National Statement on Ethical Conduct in Human Research (National Health and Medical Research Council (NHMRC), 2015) are: 1) recruitment of students and staff as participants should not be coercive; 2) participation should be opt in; 3) participants should be able to change their consent status at any time; and 4) outcomes of the research should be available to participants. A curriculum-wide online space provided a resolution to these challenges and was established on the institution's LMS to which all student and staff have access. This space was designated as the *Research Room* and is used to communicate the educational research aims and methods for the curriculum; provide an anonymous mechanism for establishing participant 'consent status' (opt in, with anytime opt out function) and also to make available any outputs (e.g. publications) to participants.

#### *Data management.*

The review of data collected from Case 2 (course curriculum) and Case 3 (MOOC curriculum) resulted in a strong recommendation to only collect data in digital format. This is usefully aligned to institutional requirements for a blended learning model in delivering curricula and the use of a LMS for recording and managing grades and supports a key feature of the research design to allow for data matching, particularly grade and demographic data with qualitative natural data. Consistent with ethical data management, an independent third party must take responsibility for data matching, ensuring anonymity of students to teaching staff, and providing usable data for research purposes.

#### *Research Plan Management.*

A key principle of research management embedded in the original plan was to explicitly adopt institutional policies for ethical conduct of research, including authorship agreements. Additionally, for teaching teams where not all staff are active in research, it was important to establish a committee structure whose members take responsibility for ethical conduct of the research. This committee also takes carriage of developing and enacting the research plan, authorising activities (ethics amendments, sub-research projects and associated data analysis, and a publication plan). The review of this aspect highlighted the importance of building and maintaining a collegial and collaborative culture, structured and guided by the research plan. This teaching team approach facilitates capability building for good teaching practice (e.g. peer review) with additional benefits that included publications and successful grant applications as evidence for promotion and recognition via teaching awards.

Phase 1 of the design-based approach to curriculum development and delivery comprised three case studies, each underpinned by an evaluation-research plan and accompanying ethics application. This phase concluded with a critical review of the associated ethics applications in consultation with the Chair of the institution's Social Sciences Human Research Ethics Committee. The aim was to codify the learnings from the multiple iterations of developing ethics applications (with multiple amendments). This allowed the development of a transferable resource (generic ethics application) that complied with all ethical requirements (NHMRC, 2015). This streamlined ethics application template is customisable for any significant body of curriculum delivered by a teaching team. An online mechanism for managing consent and data was also developed. Building on Phase 1, Phase 2 began the

process of formulating the CER framework as more than a method to coordinate evidence-gathering and analysis for QA with the opportunity for SoTL. The emerging framework for evaluation and research also made explicit opportunities to build a teaching team culture in which collegial and collaborative academic work occurs and is focused on a shared goal of evidence-based curriculum design and delivery.

## **Phase 2: within-institution dissemination and iterative refinement**

Phase 2 was indicated by the authors stepping aside from hands-on involvement in the curriculum cases and changing focus to disseminating the formalised CER framework and generalising and refining the supporting resources. In particular, synthesising the specific elements in the case-relevant ethics applications to create a generic ethics that was applicable across a broad range of curricula types and that could be easily tailored to other contexts.

The driver for transitioning to Phase 2 was the growing body of evidence of the value and impact of the CER framework when applied by teaching teams to curricula. In the course of three years more than 25 scholarly outputs (publications, conference presentations across the curriculum cases), more than \$100K grant funding including one curriculum case forming part of an OLT extension grant, and three institutional and one community award for teaching excellence.

Attention was transitioned from the impact and effectiveness of each case's curricula on student learning and experience to the impact and effectiveness of the CER framework in driving scholarly approaches and outputs in a body of curricula. This change in focus necessitated a new set of research objectives:

1. To *document* the CER framework uptake (adoption and adaptations);
2. To *investigate* the process and outcomes of implementing the CER framework in a variety of institutional contexts and *identify* themes related to barriers/challenges; opportunities and success factors; adaptive practices to translate and contextualise;
3. To *evaluate* the impact and effectiveness of a CER framework in enhancing curriculum and teaching quality;
4. To *disseminate* methods and resources for implementing the CER framework via good practice case stories (creative commons share and attribution licence).

The central mechanism for achieving these objectives was an Embedding Evaluation and Research into Curriculum workshop. This workshop was designed to:

1. **Frame** academic development and professionalisation as a valued process that is a necessary element of curriculum quality assurance and transformation;
2. **Present** the CER framework as an effective, collegial solution to issues that academics report as affecting curriculum quality (including workload, time and casualisation of the academic workforce);
3. **Share** practical resources and facilitate the process of contextualisation and application;
4. **Invite** collaboration in further developing and disseminating the CER framework.

In 2015 we provided four workshops to teaching teams within the institution (graduate and post-graduate courses) and supported the implementation in two courses and one breadth unit. Further workshops were provided in 2016, and a faculty-wide adaption was taken up.

We began to explore the value of open educational resources and sought advice on the best method to make our resources more widely available, without restrictions on further developments.

Phase 2 was characterised by a mature workshop design resulting from dissemination within our institution and emerging discussions on a model for sharing resources. Dissemination within our institution involved presentations and invitations to provide feedback and share innovations, which were incorporated into the CER framework and resources design.

### **Phase Three – CER framework dissemination**

Phase 3 was indicated by the authors expanding their focus to a national context and seeking to build a national conversation with interested institutions. The approach was to develop and deliver a workshop at a national conference (HERDSA 2016) and invite workshop participants to consider how the CER framework might be adopted, adapted and applied in their context. This led to invitations to provide tailored presentations/workshops to interested staff members within three HE providers as well as interest in a whole of institution adoption by one non-self accrediting institution. A current collaborator communicated the following benefits of sharing our CER framework within the institution:

“[It is] a model of building scholarship on a foundation of compliance and quality improvement ... the resources and processes that you have developed over time, has meant that we are able to get a framework in place here very quickly... [your] open[ess] in sharing the developmental journey, meant that you were able to answer our questions authoritatively, with a high degree of contextual understanding, and your responses offered much more than our sometimes naïve questions asked ... your willingness to collaborate with us as a non-university HE provider was refreshing ... It is a significant efficiency for the sector” (Personal Communication, 31/1/2017).

The underpinning philosophy of the CER framework design is collegiality and shared leadership (Pearce, 2004), with ethical guidelines for its application. This philosophy also applies to our approach to disseminating the framework. Thus, we adopted an open educational resource model for sharing the CER framework and its associated resources under a Creative Commons Share Alike licence. This approach is accompanied by inviting collaborators to build on the foundation of what has been shared, adapt and innovate in their context and feedback to us and feed forward to a growing community. The CER framework enables routine collection of multiple types of data, however, a challenge yet to be resolved is the ethical and efficient management of big qualitative and quantitative data sets that, at this stage, are managed manually by an independent third party.

Documentation of barriers to uptake and opportunities for embedding the CER framework in course curriculum is ongoing. We are turning the evaluation lense on the CER framework to investigate its impact and effectiveness for a range of curriculum types and scale, considering aspects of curriculum quality, review and transformation. For example, the introduction of the HES Framework prompted a shift to focusing on the value of the CER framework for planned quality assurance, particularly in the context of curriculum review and renewal (Kelder & Carr, 2016). The goal continues to be transforming curriculum and building a culture of routine evidence collection and analysis such that meeting regulatory requirements is a by product of everyday practice

### **Conclusions**

The CER framework is designed to:

- be grounded in the natural data of design, development and delivery,

- be informed by literature,
- be enacted by relevant parties (teaching team),
- meet HES Framework requirements,
- provide evidence usable for QI, QA, and data usable for SoTL.

As outlined by Kelder and Carr (2016), the CER framework demonstrates the interconnectedness of QI, QA and SoTL and the value of a teaching team approach to quality enhancement and curriculum transformation. Key success factors include shared leadership and a planned approach to curriculum evaluation and research, underpinned by national ethical research standards. The resources developed enable this quality-focused activity and include a generic ethics application, a method for collecting student data, and a mechanism for establishing participatory consent. Ongoing curriculum renewal is not optional under the HES Framework. The CER framework provides an organising principle that encompasses institutional quality requirements while facilitating collegial, scholarly activity that is directed toward quality learning and teaching.

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