

A Pragmatic Approach to Preparing Novice Doctoral Qualitative Researchers

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Abstract: Fifty percent of social science and education doctoral students in the United States fail to complete their programs. Within this context, studies addressing research methods pedagogy and qualitative methods in particular, continue to be limited. Even more limited are accounts of experiences in which students learn through individually chosen projects. This single instrumental case study sought to address these issues by: 1) using the Ready Develop Integrate Perform (RDIP) model to frame, design, and implement an immersive competency-based introductory qualitative core course and its supporting learning management system; and, 2) describing the resulting student learning experience as illustrated by assignment scores and course reviews. A sample of online and face-to-face students, representing 37% of eligible participants (n=23) developed research competencies and reported a stronger sense of readiness for independent research and dissertation work. This paper adds to the qualitative methods pedagogical literature by addressing improvements to doctoral research methods education. The competency-based design may be implemented in any disciplinary setting. The detailed blueprint and implementation advice for university teachers may also add value to a variety of disciplinary contexts.
Keywords: qualitative research methods education; doctoral students; competency-based; scaffolded instructional design; authentic assessment

The value of the doctoral degree, especially in terms of knowledge generation in American academic and non-academic, has been well-discussed (Gardner, 2009; Lovitts, 2001; Walker et al., 2008). Doctoral degree holders themselves derive many personal career, economic, and lifestyle benefits (Gardner, 2009; Rigler et al., 2017). Interest and enrollment in social science and education (SSE) programs have steadily increased between 2009 and 2019 [U.S. National Center for Science and Engineering Statistics (NCSES), 2020]. Access through distance education has also fostered enrollment [U.S. National Center for Education Statistics (NCES), 2021]. However, this increased participation in doctoral education has not resulted in increased completion rates, which continue to remain at approximately 50% with median completion times of about 8 years (NCES, 2021). Researchers (e.g., Jones, 2013; Rigler et al., 2017) found factors such as advising, socialization, personal resources, and candidate readiness have contributed to this dismal record. Further, Lovitts (2005) discussed candidate readiness in terms of transitioning away from being “good course takers to being creative, independent researchers” (p.138). This transition is usually marked by the completion of independent research, oftentimes a dissertation.

The design and structure of doctoral degree programs can inhibit this transition. Jones (2013) described a mismatch between program acceptance criteria based prior academic performance and program expectations that should prioritize “independent creative work” (p.88). Pre-candidacy coursework continues the focus on traditional academic performance, which tends to be highly structured. This requirement of students to be good course takers contrasts with the relatively unstructured post-candidacy independent research expectations (Lovitts, 2005). Much of the preparation in research methods (RM) takes place in the pre-candidacy. Related to this is inadequate RM including limited independent research experience (Golde & Dore, 2001; Rigler et al., 2017). Malakyan’s (2019) analysis of 70 multidisciplinary doctoral programs in leadership (62 American and 8 international; three online and five hybrid) found 91% had coursework requirements that mostly

excluded room for independent research. A similar analysis of social work programs found only three had a practicum requirement and one third required a qualitative research course (Driscoll et al., 2015).

Naturalistic and mixed methods inquiries have become more prominent in SSE fields. Therefore, a lack of preparation in qualitative RM can further erode doctoral student post-candidacy readiness. Thus, programs must find ways to mitigate these structural barriers with pedagogies that increase access to independent research within existing coursework requirements, especially in qualitative RM. Jones' (2013) analysis of 995 published papers on doctoral education found only 3% addressed teaching. Within this larger context, available research on qualitative RM pedagogy continues to be limited. Thus, this paper sought to extend the qualitative RM pedagogical literature by exploring how an immersive introductory qualitative RM experience could help to prepare novice doctoral student researchers for research independence.

Research Methods Pedagogy and Teaching Qualitative Methods

Several themes from prior syntheses of undergraduate and graduate RM teaching continue to be relevant (see Cooper et al., 2012; Earley, 2014; Kilburn et al., 2014; Wagner et al., 2011). RM teaching and learning largely occurs within decentralized disciplinary contexts, creating a need for a common RM pedagogical culture; a combination of didactic and experiential learning strategies, especially in introductory courses is essential; assessment of learning should address cognitive, affective, and experiential outcomes; and, the need to support RM instructors with limited teaching experiences. RM-specific pedagogical content knowledge (PCK) could give language and support to best practices in education, and advance research capacity across academic disciplines (Nind et al., 2015; Nind & Lewthwaite, 2018a; Nind & Lewthwaite, 2018b). RM PCK should also make instructional design considerations explicit (Bartels & Wagenaar, 2018; Lareau, 1987).

The qualitative research pedagogical literature includes individual RM PCK accounts that describe issues, challenges, and approaches to teaching. Many integrate mini projects focus on methods within data collection, data analysis, and reflexivity (e.g., Attia & Edge, 2017; Cox, 2012; Deggs & Hernandez, 2018; Delyser, 2008; Drisko, 2016b; Este et al., 1998; Hansman, 2015; Hernández-Hernández & Sancho-Gil, 2015; Hsiung, 2008; Jacob & Furgerson, 2012; Katz, 2015; Kawulich & D'Alba, 2019; Paulus & Bennett, 2017; Skukauskaitė & Rupsiene, 2017). There is a fairly recent account of the potential value of 3-D environments such as Second Life in RM teaching (Kawulich & D'Alba, 2019). These accounts together reflect a consensus of the importance of experiential learning in RM teaching. The prioritization of these methodological areas likely reflects the reality of program constraints. However, a fuller understanding of the research process can be gleaned by working through the mess of an entire project in which transferable RM hard and soft skills are developed (Haughton, 2019; Hopkinson & Hogg, 2004).

The Pedagogical Value and Challenges of Individual Full Projects

The experience of a self-directed project can foster a sense of ownership, independence, and an emerging researcher identity (Devos et al., 2017; Lovitts, 2001, 2005, 2008; Wenger, 1998). These affective dispositions could also support students' transition from being good pre-candidacy course takers to post-candidacy independence. Providing each student with the opportunity to work through their own full research project within the traditional course structure can be cumbersome, especially in introductory courses. However, given the limited access to qualitative RM coursework, it is in these very courses that this experience is necessary. Moreover, explicit instructional designs that integrate experiential and didactic elements can advance RM pedagogical best practices across disciplines.

Unfortunately, few documented accounts of full project learning designs and related pedagogical blueprints exist within an already limited RM pedagogical literature.

Documented accounts of full project learning designs include: Bartels and Wagenaar (2018); Baxter and Jack (2008); Chenail (2011); Frels et al. (2011); Kuckleman, Cobb, and Hoffart (1999); Miskovic and Lyutykh (2017); and, Munn (2016). Some accounts described but did not include actual project implementation. Where implementation occurred: the context was discipline-specific; the course was not introductory; project work happened across multiple courses; students worked in assigned groups and/or did not choose their own projects. Also, assessment evidence was mostly limited to student comments, echoing a gap identified in prior syntheses. Discussions of supporting didactic elements and detailed blueprints were largely absent. Hence, further insight into supportive RM PCK may be gleaned from another competency-based pedagogical approach that addresses some the aforementioned limitations.

Research Goals

Goal 1 is to describe a competency-based approach to an introductory doctoral qualitative course. A detailed description of the competency model, course design with didactic elements and assessment system, and implementation blueprint are presented.

Goal 2 is to describe the learning experience of novice doctoral student researchers as illustrated by assignment scores and course reviews. An analysis of student assignment scores and course reviews, which by extension, further examines of the course design, is presented.

The author considers herself a pragmatist who recognizes the importance of RM competency in degree completion. Working through students' research anxiety and fear of failure is an unwritten goal. The author believes experiences that engage students in their own research are central to effective RM pedagogy, research independence, and overcoming anxiety. She believes effective pedagogy must also “scaffold the mess” of authentic research, especially in introductory courses. Hence, her approach, which some may describe as post-positivist, establishes spaces in which learning from failure is an option. She believes learning from both failures and successes mirrors real life and promotes both confidence and resilience. However, balancing ideal learning goals within existing structures such as instructional time, class size, varying levels of student readiness, and other workload commitments are ongoing challenges. Her pedagogical approach is guided by her Ready, Develop, Integrate, Perform (RDIP) competency model.

RDIP Competency Framework

Figure 1 is an adaptation of the RDIP model proposed by the author (Haughton, 2017, 2017). The RM pedagogical model describes how learning environments can be scaffolded with experiential and didactic elements, which enables novice student researchers to explore problems of interest in multidisciplinary class settings. This exploration includes the development of communication and collaboration skills. Each competency level is aligned with its respective performance type: Having Course Prerequisites, Develop Knowledge & Understanding, Apply Knowledge & Understanding, and Making Judgments. Pedagogical decisions such as learning objectives (LOs) and assessment evidence are also integrated. Assessment outcomes are also aligned with cognitive taxonomy levels (Bloom et al., 1956).

Being Ready considers academic and non-academic prerequisites. The learning experience (course) begins at the Develop level and focuses on foundational knowledge and understanding, and mastering the lowest level LOs. Assessment is primarily at the knowledge and comprehension cognitive levels. Building on the Develop level, the Integrate level focuses on mastering mid-level LOs

that require the cross-disciplinary application of knowledge and understanding. This builds a bridge to real-world applications. Assessment is primarily at the application and analysis cognitive levels but crosses into higher order cognitive levels. Perform is the highest competency level and focuses on mastering higher order LOs. Students demonstrate mastery by making judgments while completing authentic tasks that simulate real-world performance. Assessments are primarily at the synthesis and evaluation cognitive levels. The ability to communicate and collaborate effectively becomes more complex as mastery develops, as represented by the deepening shade. RDIP also provides the analytic framework for this case study.

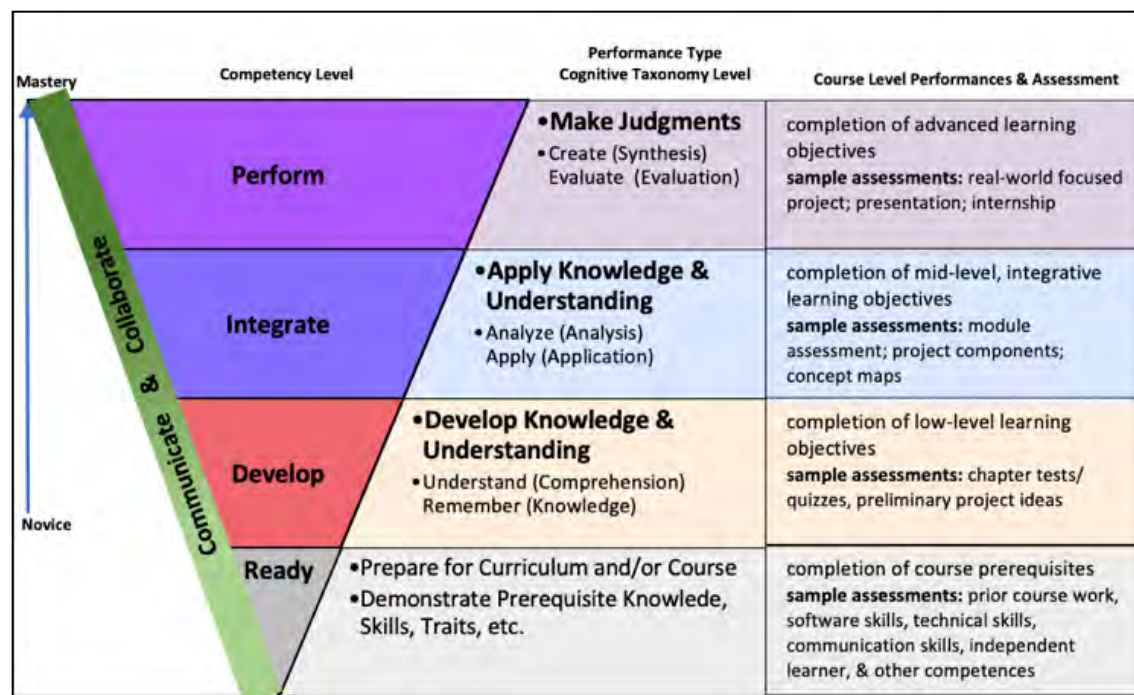


Figure 1. Haughton’s RM Pedagogical Model (adaptation shown).

Methods and Procedures

This single instrumental case study sought to explore the potential role of introductory RM coursework in preparing novice doctoral students to pursue independent research. It focused on gaining insights into the current competency-based pedagogical approach and the resultant learning experiences of novice doctoral students as illustrated by learning outcomes evidence. An examination of both the quantitative and qualitative evidence provided a fuller illustration of the student learning experience (Creswell & Plano Clark, 2007).

Site and Participants

This study took place at a public university in an American Midwestern state. The university offers terminal degrees in multiple fields including the Law, Health and Social Sciences, and Education. RM courses usually enroll doctoral students from different SSE programs. Figure 2 describes the sample of 23 course completers (37%) from four semesters (2017 to 2018; N=62), who consented to the use of their course data. The seeking of consent took place two years after the fourth sample course ended. This avoided the conflict of interest for the researcher who also taught the advanced qualitative RM

course in 2019 and 2021. This timeline also enabled the preliminary exploration of post-course capacity building.

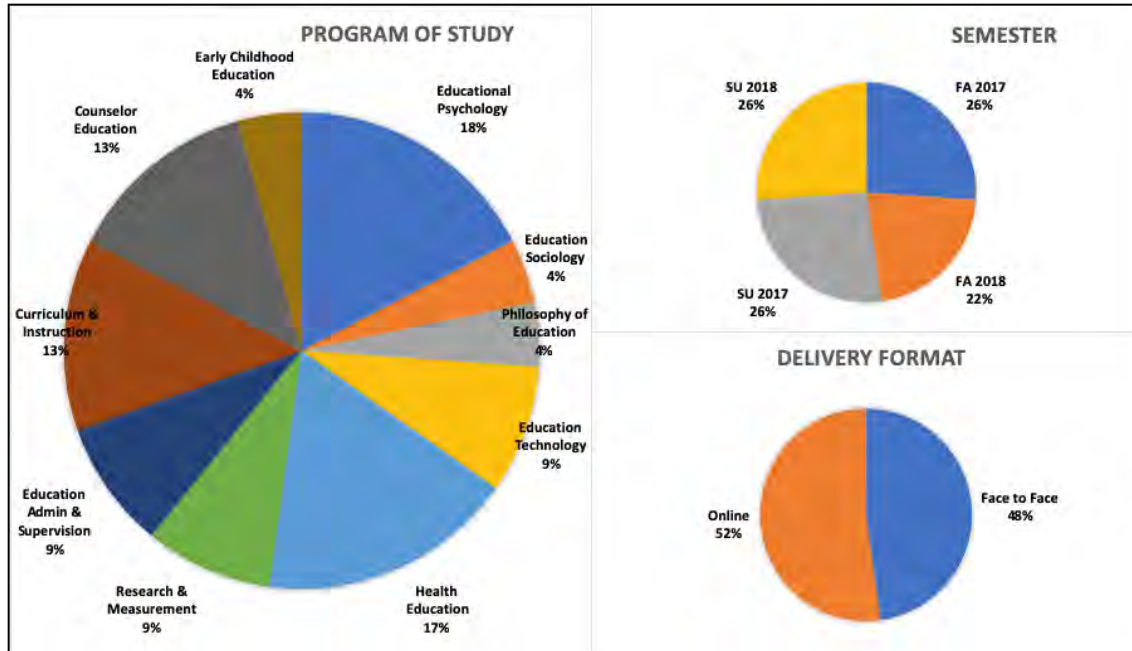


Figure 2 . Participant characteristics (n=23): Program of study, semester, and delivery format.

The Course

Introduction to Qualitative Research (RM 7000) was developed and taught by the author. Its pedagogical approach is to prepare doctoral students to be researchers by providing a practical and relatively immersive introduction to both RM methodology and RM methods. The course explores the five common approaches as presented in the Creswell series – narrative, phenomenology, grounded theory, ethnography, and case study. It is delivered in multiple formats: 15-week (in-person); six-week (asynchronous online) summer session; and, dual synchronous in-person and remote attendance for COVID-19 protocols.

RM 7000 has four content modules: Foundations of Qualitative Research (M1); Qualitative Study Approaches (M2); Data Collection and Analysis (M3); and, Writing and Evaluating the Results (M4). The six LOs align with the modules as follows:

- (1) Describe the historical context of qualitative research concepts. M1
- (2) Describe the basic assumptions of and differences between the qualitative and quantitative research paradigms. M1
- (3) Describe, differentiate, and inter-relate between the major types of qualitative research methods and approaches M1, M2
- (4) Describe, differentiate, and inter-relate the major components of a qualitative research study. M1, M2, M3
- (5) Describe, differentiate, and inter-relate major activities involved with conceptualizing and conducting qualitative research. M3
- (6) Implement a qualitative research project. M1, M2, M3, M4

The opportunity to develop RM competences and master RM 7000's LOs is enabled by a major project, class activities, and supporting didactic elements. Students may choose their own individual projects or opt to collaborate in groups of up to three. Topics reflect the multidisciplinary composition of each class and have included absenteeism (Educational Leadership), trainee mentorship (Counselor Education), and family support (Special Education). The project is divided into components that align with each content module. Each project must include a participant interview and a second data source for triangulation. The final artifacts are a class presentation and the full written report. Two formal and written interim reports are required for the introductory and research design sections. Projects are classified as instructional and do not require university-level ethical clearance. An integrated assessment system that provides direct and indirect evidence of the student learning experience.

Direct evidence of learning is gathered from student work at each competency level. Evidence includes scores from: three optional extra-credit quizzes for M1, M2, and M3 (Develop); two concept map homework assignments, one each for M1 M2 and M3 M4 (Integrate); and, the research project (Perform). The quizzes are knowledge and comprehension checks of important research methodology and methods concepts. Each quiz may be taken multiple times and has 12 to 14 multiple choice questions.—Concept maps are flexible mind-tools that support knowledge base development (Jonassen, 1996). Concept maps also enable the visualization of structural knowledge in domains of interest (Jonassen & Grabowski, 1993). The two concept mapping homework assignments enable each student to represent their integrated understanding of key qualitative research methodology and methods concepts.

Two optional indirect assessments are administered during the final week of the course: a student reflection of learning is submitted with the final project and the university's anonymous post-course evaluation questionnaire. Participation activities and informal presentations occur throughout the course. An example is the debriefing class session after the participant interview. Students receive a holistic participation score for each module.

Data Sources

The quantitative outcomes data were derived from course assignment scores from the direct assessments and the quantitative portion of the university's post-course questionnaire. A five-point Likert-type scale to assessed instructors in terms of their: (1) experience in subject matter; (2) response to inquiries in a timely matter; (3) concern and respect for students; (4) encouragement of the expression of ideas; (5): encouragement of the construction of ideas in groups; (6): and, fair and consistent grading. A seventh overall course experience question is included. The reliability coefficients of the responses were acceptable the $\alpha > .70$ threshold: (all responses) = $\alpha = .897$ (N=40); online = $\alpha = .915$ (n=24); and, face-to-face = $\alpha = .873$ (n=16). Qualitative data were derived from two sources: the qualitative comments from 26 (65%) students, 16 (62.5%) of whom were online; and, the post-course reflections from 11 students.

The inherent variation in SSE doctoral programs makes it difficult to directly assess post-course RM readiness. Completing dissertation research remains a common requirement. Hence, the inclusion of completed qualitative dissertation research as preliminary evidence is an initial step in closing this gap.

Data Collection Procedures and Analysis

Three datasets were compiled from the sources described in Figure 3. Dataset1 contained summary assignment scores and post-course research information. The assignment scores were mined from the

learning management system (LMS) were the quizzes (Develop), the homework (Integrate), and the final project (Perform). A dissertation abstracts search for the names of participants who took the course in 2017 determined the number of qualitative-focused dissertations. Dataset2 contained the post-course questionnaire quantitative scores for the four semesters. Dataset3, a Word document, contained the qualitative evaluation comments and end of course reflections. These data sources together illustrated the student learning experience by assessing all level competency levels, addressing both cognitive and affective outcomes, providing insight into the students evolving dispositions towards the subject matter, and, providing very preliminary evidence of post-course readiness and capacity building.

	Orientation Module	Activities and Assignments	Research Data Source and Type of Assessment
Novice Ready Communication and Collaboration Develop: SLOs 1 & 2 Integrate: SLOs 3, 4, & 5 Perform: SLO6 Mastery Capacity Building	1: Review Course Documents: Start Here; Syllabus; Schedule 2: Download, Install, and Test Course Software 3: Decide on Collaboration	1: syllabus confirmation message 2: blog 3: practice concept map 4: working in groups notification concept map	No research data gathered
	M1: Research Foundations 1: Philosophical Foundations 2: Designing a Research Study 3: Introduction: Problem Statement, Research Purpose, Research Question, Significance	Activities and Assignments 1: Qualitative vs. Quantitative Designs 2: Initial Project Ideas 3: Extra Credit Quiz 1 (optional)	Quiz 1 scores (develop level) gathered from LMS self-administered quizzes; direct assessment
	M2: Qualitative Approaches 1: The Five Approaches 2: Examination of sample articles	Activities and Assignments 1: Report 1 and Peer Review 2: Homework 1 (Modules 1 & 2) 3: Discussion / Activity: Interview Protocols 4: Extra Credit Quiz 2 (optional)	Quiz 2 scores (develop level) gathered from LMS self-administered quizzes direct assessment Homework 1 scores (integrate level) gathered from LMS; score details in Excel Sheet direct assessment
	M3: Qualitative Research Methods 1: Qualitative Rationale 2: Role of Researcher / Reflexivity 3: Sampling 4: Data Collection 5: Data Analysis: Data Preparation	Activities and Assignments 1: Discussion / Activity: Approach to Data Collection 2: Report 2 and Peer Review 3: Extra Credit Quiz 3 (optional)	Quiz 3 scores (develop level) gathered from LMS self-administered quizzes direct assessment
	M4: Findings 1: Data Analysis: Inductive Analysis 2: Visualization 3: Writing Results 4: Evaluation 5: Reflection	Activities and Assignments 1: Homework 2 (Modules 3 & 4) 2: Final Presentations 3: Report 3 (Final Full Report with Appendices A & B)	Homework 2 scores (integrate level) gathered from Excel grading sheet direct assessment Final project scores (perform level) compiled from Excel grading sheet direct assessment Student reflections indirect assessment Course evaluations quantitative and qualitative indirect assessment
	Post Course / Capacity Building	Appendices C & D	Post course qualitative dissertation completion direct assessment

Figure 3. RM 7000's pedagogical design.

The quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26 and results were presented by course delivery format – online or f2f. Reflection summaries and post-course qualitative responses were analyzed inductively using the general analysis strategies outlined in Creswell and Poth (2018). The process began with organization and preparation, followed by: reading and memoing for ideas leading to code development; classifying and reducing codes into themes; linking themes to the analytic framework; and, representing and visualizing the data.

Results

Goal 1: Competency-based Approach

Figure 3 and Figure 4 describe the course's blueprint. Figure 3 describes the instructional design and pedagogical elements while showing connections with pre-course readiness and post-course capacity building. Orientation activities establish readiness. Students who are ready for learning can: navigate the LMS; use LMS tools for communication and collaboration; and, create concept maps. Coursework begins with RM foundations and proceeds to qualitative approaches, qualitative RM methods, and

findings. The didactic elements help to integrate RM methodology (theory) with RM method (practice). The first formal progress report, due at the end of M2, is a draft of the introductory sections. The second report focuses on the research methods sections and includes revisions to the introductory sections.

The progress reporting and participation activities support formative assessment by scaffolding the mess of research. They also help to create a learning space in which students can reflect on their growth while learning from the inevitable mistakes and failures, which they must learn to navigate as independent researchers. These cycles also prepare students to finalize their respective final presentations and reports. Online students submit annotated PowerPoint presentations. Final reports must also include four appendices. The informed consent (Appendix A) and participant interview (Appendix B) protocols were developed and implemented on M3. Two additional evidence of research readiness were also required: a certificate completion of the *Social, Behavioral, and Education Responsible Conduct of Research Basic Course* (Appendix C), and a simulated Institution Review Board protocol (Appendix D).

Supporting LMS

The LMS course site shown in Figure 4, also shows excerpts of two scaffolds – the project checklist and a sample concept map. Links to frequently used resources such as the syllabus and schedule have one-click access. For example, blogs help to establish students’ academic and social presence, especially for online students (Garrison et al., 2003).

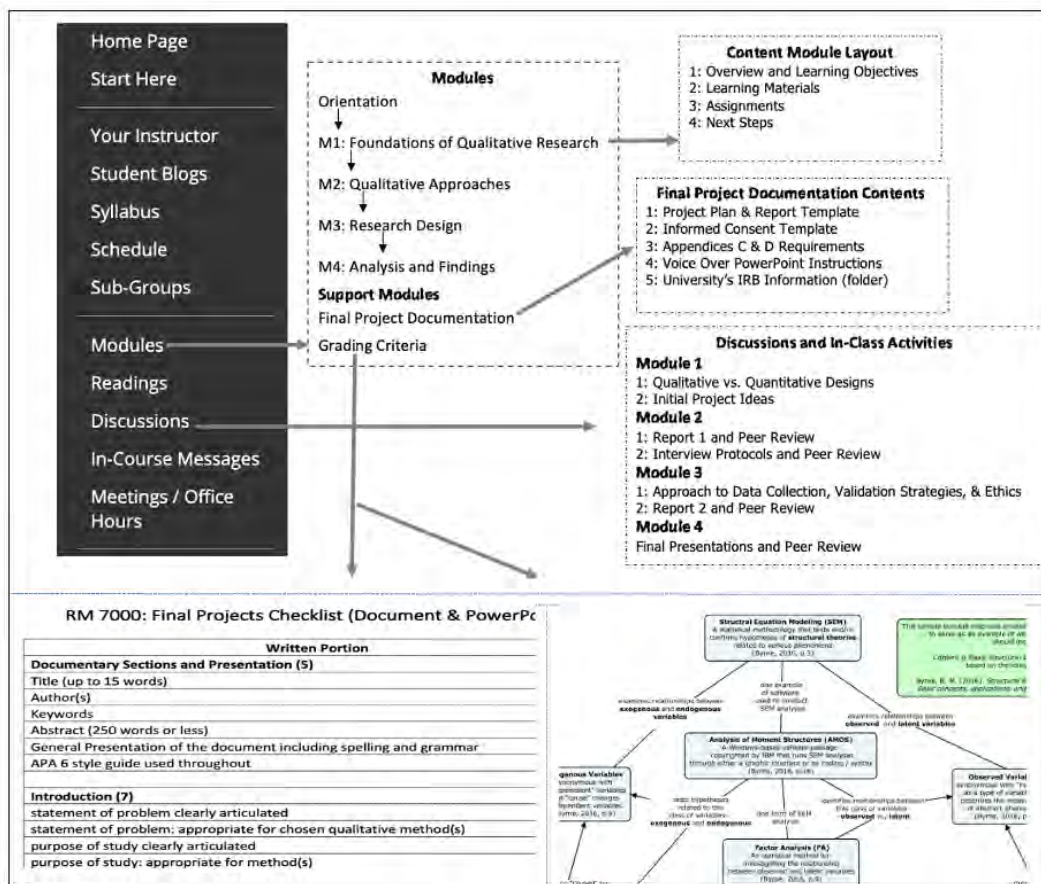


Figure 4. RM 7000’s learning management system design.

Blogs also help with identifying potential collaborators. All content modules have the same layout. There are two support modules. Final Project Documentation contains all resources needed for the projects such as report templates and a link to the Appendix C basic course. Grading Criteria contains grading rubrics and checklists for all assignments. Students use these resources to work on assignments, and for self- and peer-assessment.

Goal 2: Description of Student Learning Experiences

Direct Assessments from Assignment Scores

Direct assessments scores by competency level and delivery format are presented in Figure 5. The face to face (f2f) students had higher average scores on the first homework and final project assignments. The online students had higher average scores on quiz 1 and quiz 2, and on the second homework assignment. An independent 2-tailed *t*-test confirmed the difference on the final project scores was significant [$t(21) = 2.851, p = .01$]. A further examination of the assignment scores revealed a moderate-to-strong positive correlation between the scores on the first homework and final project assignments [$r(21) = .66, p = .001$].

These results make sense from the author’s teaching experience. Students across delivery formats had an adjustment period and tended to struggle most at the beginning of the course. Some online students took multiple courses during the same 6-week summer session. This added stress likely increased their course adjustment period and made them more likely to seek extra credit. The accompanying interaction with the content enabled improved performance on homework 2. Participation activities were more dynamic and seminar-like in f2f and synchronous settings. It is generally easier for all students to collaborate in real time. This contrasts with asynchronous online settings where students also have to work around different schedules. The adjustment period also coincided with foundational decisions such as choosing topics and submitting the first interim report. These results generally lend support to the notion that achieving higher order LOs and mastering higher competency levels requires achieving lower level LOs and mastering lower level competences (Haughton, 2017, 2019).

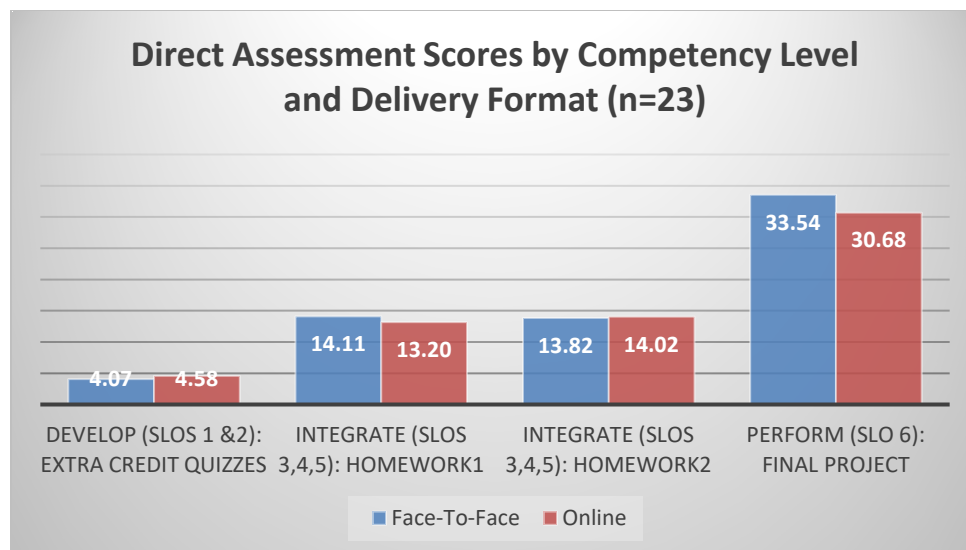


Figure 5. Summary of direct assessment scores.

A search of the dissertation abstracts found entries for six students from the 2017 courses. Two students, one each from f2f and online settings, wrote qualitative dissertations, representing one third of the completed dissertations. Two is a small number that is clearly not generalizable. The intention is to explore possible preliminary evidence of RM 7000's contribution to post-course readiness and capacity building. The larger story from the course-based direct assessment evidence suggests the pedagogical design of the full project and its didactic elements supported the RM learning experience of diverse novice doctoral researchers in this introductory course.

Indirect Assessments from Quantitative Course Reviews

Figure 6 summarizes the course evaluation scores. There were no significant differences by delivery format. Moreover, apart from the online score for concern and respect, most students in both formats reported positive experiences. Further analysis of the concern and respect scores revealed a slight majority of online students had positive experiences; five were neutral, and two students reported negative experiences.

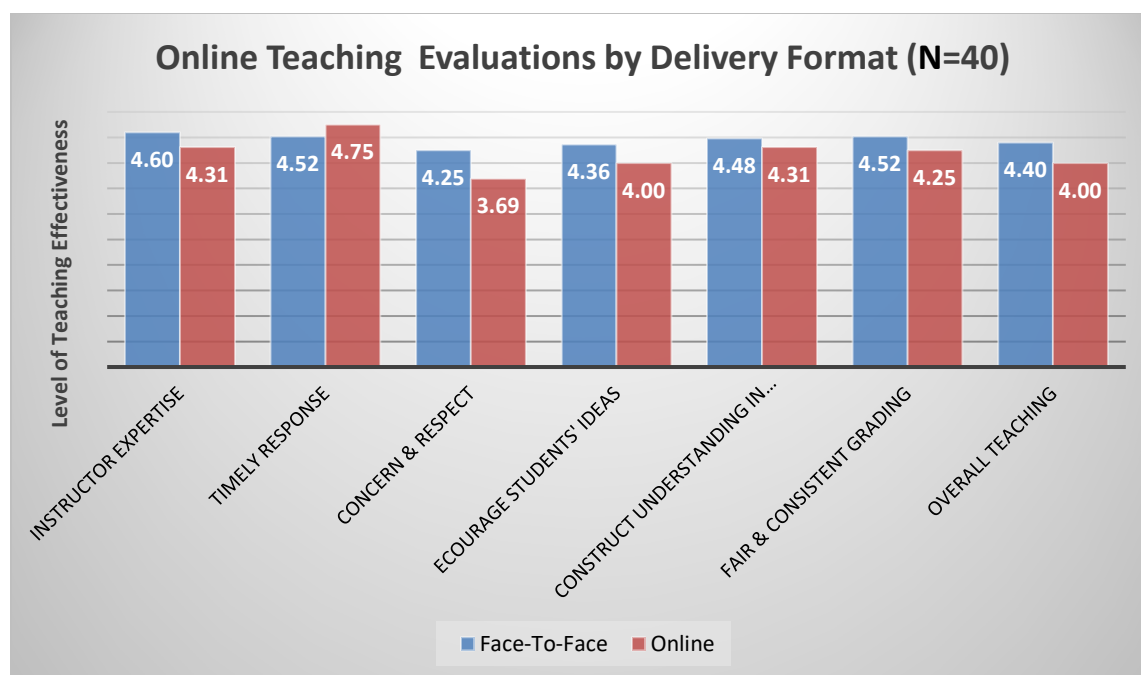


Figure 6. Summary of indirect assessment: Online teaching evaluation scores.

Indirect Assessments from Qualitative Course Reviews

The available comments were classified as negative (5, 19%), mixed (6, 23%), and positive (16, 58%). The negative comments focused on concern and respect (2 online), unclear and inconsistent requirements (1 online, 1 f2f) and workload (3 online). Mixed comments related to the LMS navigation came from f2f students. The positive comments related to: learning environment (e.g., resources, expectations, formative assessments, and interaction); growth in RM competences, and research confidence; and, readiness for research beyond the course. Reflections from online students were not available in this sample. All reflections from the f2f students were positive (pseudonyms are used throughout). Health students John and Anna, and Carson and Hughes completed joint projects. Barrow and Patmore completed solo projects. Education students – Edith, Isobel, Mosely, Daisy, and

Violet completed solo projects. Broad themes from the qualitative data related to learning environment, growth, and readiness. They reflected a transition from novice to independent researcher, described in Figure 7.

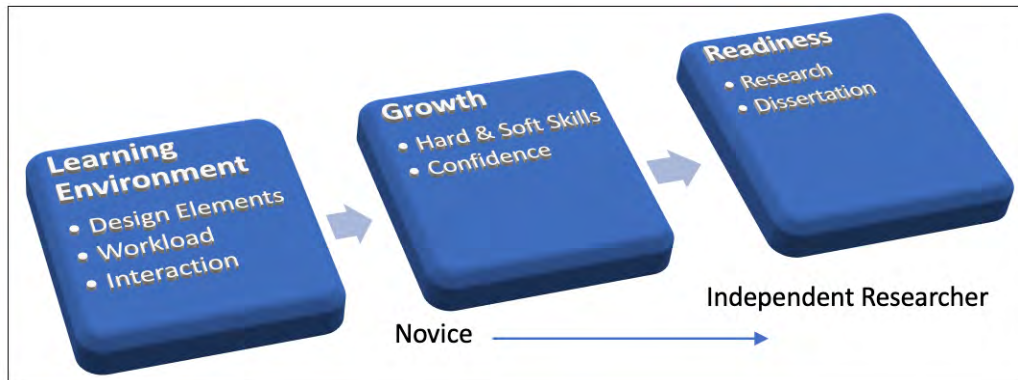


Figure 7. Themes from evaluation comments and reflections.

Theme 1: Learning Environment

This theme relates to how students experienced various aspects of the course. Design elements, workload, and interaction were three inter-related sub-themes.

The *Design Elements* sub-theme relates to the course and LMS design and included assessments, resources, and performance expectations. Two f2f students found the LMS “confusing to navigate and find everything” and that “the course could be much improved with better organization of content in Blackboard and better explanation of her expectations”. One online student had a different perspective and thought “The professor had very clearly articulated expectations, with rubrics and examples to help guide the student, as well as individualized feedback that helped fulfill the requirements for the course”.

The confusion was likely related to being overwhelmed at the start of the course. These feelings generally subsided after the first grading period that included report 1 and homework 1. It was then that students had a better understanding of the formative assessment process:

I admit, the first class I felt lost, the amount of the information was huge. Then I realize after few classes that we will be learning from each other’s, share experience, reflective thinking and do activities to practice the theory. (Edith, reflection)

M3 also marked a shift away from grading and LMS concerns to research learning. As they transitioned into the researcher space, they embraced formative design elements such as “prompt feedback and communication” (online student). One f2f shared “As time went on throughout the semester, I appreciated Dr. A and this class more and more.” They also began to recognize how the design elements connected and contributed to their RM development and professional identity beyond the course:

Creating concept maps allowed us to master definitions in qualitative research while understanding how they connect. Likewise, working in a group setting for the final project was a worthwhile experience. As professionals in health education, collaboration with others is an essential component, especially for grant writing and research projects. While collaborating with other students, we were able to be better visionaries, learn from our partner’s strengths,

and improve in our areas of weaknesses. Working together with a classmate was an invaluable experience that was practical and educational. (John and Anna, reflection)

The *Workload* sub-theme reflects the challenge of workload management, especially for online students in the 6-week format. One felt “this course should be taught over a longer time span -- a full semester rather than a half semester, because there is simply too much to learn”. Another felt the discussion forums were “bogged down” by “certain students in the class that asked a ridiculous amount of questions”. As with Design Elements, online students were more accepting and comfortable after the first formative cycle. “This course was intense given the shortened timeline but once everyone figured out how to navigate the site (the instructor believes it to be straightforward and I disagree...), the course was more manageable”. Another recognized the importance of independence and shared “I figured things out. I guess that is what courses on this level require.”

The *Interaction* sub-theme reflects with the challenge to students’ epistemological thinking (Katz, 2015; Kuckelman et al.,1999). Thus, beyond workload, challenges to students’ thinking may have been viewed negatively with one student feeling “cut-off and ignored” (f2f) and another “discouraged from asking my own questions” (online). Nevertheless, other dimensions of interaction, such as instructor feedback and peer collaboration, fostered positive interactions while demonstrating real-world research communication skills. Further, working collaboratively through a full project also supported positive student experiences and post-course readiness:

We had a great experience working together! We found that we both have similar work ethics and organizational styles which made this process much easier. We both found the process of coding difficult, as it was tedious to review the transcript so many times and come to an agreement on themes and subthemes. We are both very thankful for this process and look forward to expanding this project in the Spring. (Carson and Hughes, reflection)

This team subsequently re-did their project after receiving university ethical clearance. Their paper was published in a peer-reviewed journal and was added to the course reading list.

Theme 2: Growth

Growth builds on the Learning Environment theme. Students described interconnections between growth in hard and soft skills, and research confidence.

The *Hard and Soft Skills* sub-theme reflects how students’ navigation of the research process fostered the cognitive, affective, and experiential aspects of their learning:

The opportunity afforded me to conduct research through a formative process is one of the most valuable experiences that I have had thus far in my doctoral program. While, it seemed that the goal was to get this done as perfectly as possible—there was the reminder that this was a learning process and there is as much to be learned from what went right as to what did not go so right. (Daisy, reflection)

Students appreciated the “approach to student autonomy and the celebration of learning through struggle and experimentation” (f2f student). The relative autonomy also supported resilience, independence, and researcher identity. “A consistent struggle with this course has been that it is very independent. However, this course has been enjoyable and I have gained a lot as a qualitative researcher” (f2f student).

Isobel's reflection described "the importance of organization of time, procedures, data, and writing." Edith reflected on her own challenges but concluded "it was a good experience to improve my problem-solving skills. Working on the project step by step with feedback from the teacher was very helpful for me to understand the work. Blackboard Collaborate was a helpful tool to communicate with both the teacher and class mates".

The *Confidence* sub-theme marked navigating past the struggle. Struggling through the research process helped students to be more confident to engage in future research while realizing that research learning is an ongoing process. These dispositions bode well for success in the unstructured post-candidacy phase of doctoral programs (Lovitts 2005; 2008; Walker et al., 2008):

This qualitative research project was a challenge at times but a great learning tool. I am still learning from the project. This was my first time completing a research simulation but it contributed to my future research planning. The interview and the procedures in all the modules offered a lot of planning and reflective thinking. (Violet, reflection)

Theme 3: Readiness

The prior themes of Learning Environment and Growth laid a foundation for Readiness. The evidence suggests core courses like RM 7000 can support research readiness, especially in programs with limited independent research opportunities (Drisko et al., 2015; Malakyan, 2019).

The *Research* sub-theme supports the notion that developing RM competences supported readiness for advanced coursework, and future research (Drisko, 2016a, 2016b; Paulus & Bennett, 2017). "The course should be required of every graduate student who intends to conduct research. It was an awesome experience and I am looking forward to qual 2" (f2f student). John and Anna reflected on feeling "prepared for a future in academia" while Mosely described research competence and confidence:

After completing this case study, I feel more competent in my research skills and specifically in following the steps to create a cohesive plan to gather research. Before this class, I was overwhelmed with understanding the different components of a qualitative research study. Now, I feel confident in planning the entire process for gathering data.

Research readiness fostered dissertation readiness.

The *Dissertation* sub-theme is forward looking in terms of degree doctoral completion. Incomplete doctorates have both personal and institutional costs (Gardner, 2009; Lovitts, 2001, 2008; Walker et al., 2008). Hence, readiness for dissertation and professional expectations beyond coursework are essential capacity building outcomes. Success was illustrated in the following reflections:

I truly had no concept of how much I had learned until I was privileged enough to sit in on a dissertation defense this past week. The research used a phenomenological research study and as s/he was defending I was surprised because not only did I know and understand what s/he was saying but I realized that I could conduct qualitative research for my dissertation when that time comes and felt confident that I could do so successfully. (Barrow)

This research underscores the need for more research on counselor trainee impairment, gatekeeping, and the impact of trauma history on the professional functioning and wellness of counselor trainees and counselors. It was also a great opportunity to learn about qualitative research. (Patmore)

Patmore completed a qualitative dissertation on counselor trainee gatekeeping, expanding on research that began as a project in this course. This is another small nugget of evidence of post-course readiness.

Student Learning Experiences Summary

Results from the analysis of assignment scores and course reviews provided insight into the student learning experience, and by extension, RM 7000's competency-based framing, design and implementation. Learning experiences generally reflect positive cognitive outcomes, affective, and experiential outcomes. The Author's pedagogical model design facilitated the: development of qualitative RM knowledge and skills; integration of RM knowledge and skills within inter-disciplinary research; and, completion of a simulated full research project (Haughton, 2017, 2019). Autonomy in project choice, the integrated didactic elements, and the participation activities, provided an immersive experience for novice student researchers from different SSE fields. Students drew on good course taking skills while preparing for post-candidacy independence. Preliminary direct evidence of post-course capacity building was supported by the students' course reflections and reviews.

Implications for Practice

The implementation of this model in any course context should consider: preparation needs within and beyond the course; course readiness and performance expectations; artifacts that exemplify mastery; appropriate LOs and their sequence; a balance of formal and informal, and formative and summative assessments; communication and collaboration opportunities; and, the activities that enable students to demonstrate learning in multiple ways that includes opportunities to learn from inevitable failures. For RM 7000, this meant: preparing novice student researchers to engage in independent work beyond the course (Devos et al., 2017; Lovitts, 2005); supporting RM learning with authentic project work and didactic elements; implementing a balanced system of formative and summative assessments (Early, 2014); and, creating a safe and supportive community in which students develop researcher identities (Wenger, 1998).

Conclusion

This single instrumental case study's goal was to advance RM PCK through explicit pedagogical practices. The focus was an introductory qualitative core course that enrolled doctoral students from multiple SSE disciplines. Supporting the development of diverse learners in doctoral education is essential (Shulman, 1987). Also essential is the delivery of intentionally created rich learning experiences (Shulman, 2008). These learning experiences should support students' transition from pre-candidacy course taking to post-candidacy independence and expectations (Lovitts, 2005, 2008). This study's pedagogical model and associated LMS provided a blueprint for such an experience, a rich and immersive experience that enabled students to work through their chosen projects within a supportive community. The detailed didactic elements and participation activities further supported their RM learning. Like similar studies, this individual account was inherently limited by its small scale, small sample size, and potential researcher bias. Indirect evidence was limited to self-report sources. Evidence of post-course capacity building was preliminary at best. While these limitations should be addressed in future research, tentative insights may be drawn from this case.

This study provides a new contribution to the limited RM pedagogical literature. It advances RM PCK by addressing gaps related to teaching, design, and assessment. Further, it offers a new account of a teaching experience in which a full research project is integrated in a single course. The

broad assessment framework addresses experiential, cognitive and affective aspects of learning and competency development. A detailed description of the framework, design, and pedagogical scaffolds are provided. These details can support both instructors and learners. Lastly, this account offers strategies to expand the role of core RM courses in preparing doctoral student researchers. This expanded role is especially critical in programs in which independent research experiences are limited (Drisko et al., 2015; Malakyan, 2019). Providing independent research opportunities improves doctoral preparation in core courses and can enhance capacity building (Nind et al., 2015; Nind & Lewthwaite, 2018a, 2018b).

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