

EXPERIENCE EXCHANGE

Teaching/Learning strategy for the preliminary critique of qualitative research

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Abstract

Teaching research methods and critique to baccalaureate nursing students can be challenging. Our curriculum manages this skill through worksheet-based activities that allow students to recognize and break down this complex task into manageable actions and components. The worksheet learning activity discussed within this article begins the development of the complex skills and knowledge related to the integration of evidence into practice.

Key words

Teaching and learning strategy, Qualitative research, Undergraduate nursing students

1 Introduction

In the past two decades the focus on ‘evidence’ in healthcare has increased the body of research that endeavors to examine and guide nursing practice^[1]. Nursing students, upon graduation, need to be able to critique, implement and create nursing research that will guide their practice^[2,3]. Inherent within this need is the necessity for innovative and active learning activities that can help students develop the knowledge and skills they need to read and critically evaluate the constantly evolving nursing research that guides practice^[2].

Daggett, Harbaugh and Collum^[4] developed a learning activity that focused on an active method for learning research. The worksheet and associated activity helps students understand the key elements in the critique of a quantitative research study. The process outlined by these authors leads students through the preliminary steps in completing a critique of a research article. The objective of the activity is for students to develop skills, confidence and knowledge that will allow them upon graduation to implement critically, quantitative research findings into practice.

Recognizing that nursing students need to have the ability to critically evaluate both quantitative and qualitative research, we built on the learning activity developed by Daggett, Harbaugh and Collum^[4] for qualitative research.

2 Qualitative research

Central to the role of nursing is understanding the meaning of illness from the client’s perspective; a reality that would be missing if nurses were to rely solely on knowledge generated by quantitative research^[3,5]. Qualitative research describes the perspective of individuals’ experiences of the phenomena under investigation^[6]. Teaching qualitative research can be

difficult and faculty can use strategies to engage students in the evaluation of qualitative inquiry^[7, 8]. Faculty need to find ways to help students recognize the complexities of two very different approaches. One strategy that can be used by educators is to separate the epistemologies into discrete learning activities. This approach acknowledges that while the paradigms share some language and common elements, their basic philosophical tenets are very different, and could be confusing if not examined independently. Our curriculum manages this separation through separate worksheet-based learning activities. Separate qualitative and quantitative based worksheets are used that have a similar framework but integrate different content.

Our qualitative research learning activity reflects the ideals of active learning and variability in teaching and learning approaches. It helps develop the skills and knowledge needed to critique and implement qualitative research into nursing praxis. Students learn to identify specific components of a research report rather than critique the quality of the research process. Critiquing the relative quality of qualitative research is a complex skill. We believe that beginning nursing students need first to understand and identify the key elements in a qualitative research article, particularly the different designs, before applying more complex knowledge and skill needed to critically evaluate this method.

3 Description of learning activities

The qualitative and quantitative worksheets are the basis for a number of learning experiences. Both epistemological paradigms are introduced in the first year, second semester of our program. At the first year level, simple terminology and recognition of seminal components of qualitative and quantitative research articles are addressed. In two third year courses, the terms and components of research articles are reintroduced using the qualitative and quantitative worksheets. Both the first year and third year courses aim to develop skills and knowledge needed to critique and implement research into nursing praxis. The qualitative and quantitative learning activities begin with assigned scholarly readings that review both the theory behind and the constituent parts of the two research approaches. This beginning step accommodates individuals who learn through both concrete experience and abstract conceptualization learning processes as described in Kolb's model of active learning^[9].

Students complete a number of preparatory readings focusing on qualitative and quantitative research prior to class. In the classroom, the professor leads a large group discussion focusing on the preparatory readings, highlighting key points needed to complete the activity. As students complete the respective worksheets, the elements of both qualitative and quantitative articles are again reviewed. The strategy enables students to recognize and understand the components of research reports. The process focuses on a conceptual understanding of why each component is included and how, from an epistemological and functional view point, the components serve the goals of the research approaches. This step accommodates Kolb's understanding of the reflective observation and abstract conceptualization learning processes^[9].

In small groups, the students dissect the assigned articles using the worksheets. The professor circulates through the classroom during small group discussions to facilitate the learning process. The professor poses several questions of the small groups as they work on the activity. Examples of questions include: What is the purpose of the article? Is there terminology used in the purpose that reflects a particular epistemology? Students often ask questions of the professor. Examples of student questions include: How do we determine which method the authors have used when it is not clearly described? Where do we usually find specific aspects of the article (purpose, sample, method, etc.)?

This activity focuses on the reflective observation and active experimentation learning processes of Kolb's model as well as demonstrating active learning pedagogy^[9, 10]. The value of the small group activity cannot be overstated as it allows the professor to help students both understand the conceptual theory that underpins the components of the articles as well as develop skills in the identification and analysis of the elements of both qualitative and quantitative articles.

We recognize that within the same epistemological paradigms, the methods and structures of research articles can vary. Therefore, within the course, students will review a variety of articles, looking at both typical and atypical examples of

qualitative and quantitative research. The goal of these learning activities is to develop the capacity of students to identify and understand the seminal components of research articles. It is our perception that this understanding is not only a needed starting point resulting in the utilization of research in practice, but also the necessary initial step in the development of a capacity to analyze the relative quality of that research. It is our expectation that the worksheets and learning activities will provide a foundational framework building towards strategies that help students develop capacity to assess the relative quality of research articles.

Table 1. Layout of Worksheet

Qualitative Research Critique Worksheet*	Purpose / Key Elements by Method	Present Yes/No	Location (Paragraph, Line)
Title			
Introduction			
Significance of the problem			
Relevance of the problem to nursing			
Research Questions			
Purpose			
Context			
Review of the Literature			
Theoretical framework			
Theoretical literature			
Empirical literature			
Research Methodology			
Research Method			
Research Design			
Sample			
Setting			
Context			
Data collection methods			
Data Analysis			
Findings			
Discussion			
Implications			
Conclusion			

Note. Form was modified for printing purposes; actual space allowed for student writing is larger.

Each column in the worksheet refers to a different element of the learning activity (see Table 1). The first column lists the key components usually included in qualitative research articles as students need to be able to recognize and identify these key constituents. Some differentiation is built into this column acknowledging the differences between grounded theory, phenomenology and ethnography; archetypes of method within the paradigm. A number of other methods can be

identified in qualitative research. The qualitative methods that do not fit the three archetypes continually challenge students in their identification of a specific method because they are difficult to analyze and critique. Therefore, we instruct students to use the three archetypal methods as a foundation for their understanding of qualitative methods. For example, if the research article does not use one of the archetypes, students are expected to write in the description presented by the authors with the intention of comparing this description with what they know about the archetypes. This strategy acknowledges that the majority of qualitative methods are at least informed by phenomenology, grounded theory or ethnography and provides students with a reference point for their analysis^[11, 12].

The purpose section serves as a template for further article analysis. Students fill in the purpose section using knowledge from the assigned learning activity readings and in class discussion. The goal of this section is to create a tool that identifies, defines and discusses the elements of qualitative articles and elements that cross all qualitative methods, while drawing attention to components that are specific to particular designs. As the students analyze new and different articles they can refer back to the purpose section to help reinforce burgeoning knowledge around qualitative methods.

In the final two columns, the student is required to mark down the presence of key elements and identify the location within the article by line and paragraph number. This task allows the student to easily identify missing elements or the location of key elements. Their judgments are then addressed in a class discussion of article analysis.

4 Conclusion

Teaching complex tasks such as decoding research articles requires activities that allow students to recognize and breakdown this task into manageable actions and components. The worksheet learning activity discussed within this article is one example of how our curriculum attempts to develop the complex skills and knowledge related to the integration of evidence into practice. Building on the activities described by Daggett, Harbaugh and Collum^[4], our learning activity looks to provide students with the foundational skills and knowledge in the critique of qualitative research. The integration of research into practice is a culmination of a number of learning activities over the course of an entire curriculum building towards the complex task of determining the relative quality of the research, a crucial step in the integration of evidence into practice. In future, we would like to examine the outcomes of this learning activity to further support its use in teaching research in an undergraduate nursing program.

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