Strategies for Engaging Undergraduate Nursing Students in Reading and Using Qualitative Research

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Strategies for Engaging Undergraduate Nursing Students in Reading and Using Qualitative Research

Abstract
Teaching undergraduate nursing research courses can be challenging. There is substantial research explicating why this is so, but little has been written about strategies to enhance students’ ability to engage in and learn about research, especially in the context of large classes offered over brief periods of time. An important role for those who teach research is to communicate their experiential successes, as these may be of value to other colleagues in the field. In this paper, we share some creative teaching strategies. These strategies include games, cross word puzzles, and projects based on common multimedia data such as commercial advertisements. The activities are designed to help students use what they already know to learn the concepts and terminology used in the research world.

Keywords
qualitative research, teaching strategies, student engagement, research education

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This article is available in The Qualitative Report: https://nsuworks.nova.edu/tqr/vol17/iss24/2
Teaching undergraduate nursing research courses can be challenging. There is substantial research explicating why this is so, but little has been written about strategies to enhance students’ ability to engage in and learn about research, especially in the context of large classes offered over brief periods of time. An important role for those who teach research is to communicate their experiential successes, as these may be of value to other colleagues in the field. In this paper, we share some creative teaching strategies. These strategies include games, cross word puzzles, and projects based on common multimedia data such as commercial advertisements. The activities are designed to help students use what they already know to learn the concepts and terminology used in the research world. Keywords: qualitative research, teaching strategies, student engagement, research education

Which nursing student comment from teaching or course evaluations would you prefer to receive?

“Oh man, research is dry. I have heard it is the most boring course in the program. How will this make me give better needles, give medications or get along better with physicians?”

Or,

“This is the best course I have ever taken. You have shown me how research can enhance our practice – something I had never expected to happen in a research course. Thank you for the fun classes because I WILL remember them.”

Many nursing faculty have received these kinds of comments—as well as every variation in between. Research courses can be the most challenging undergraduate courses to teach in nursing programs because historically researchers have found that nursing students question and may struggle to recognize the importance of the research-practice link (Halcomb & Peters, 2009; Johnson et al., 2010; Mansour & Porter, 2008;
McCurry & Martins, 2010; Walsh, Chang, Schmidt, & Yoepp, 2005). Integrating research into nursing curricula is essential to enhancing research literacy and to equipping nurses to undertake evidence-informed practice (Peckover & Winterburn, 2003), which is similar to many practiced disciplines in health and beyond.

In contemporary nursing practice, where evidence-informed practice is a minimal professional licensure expectation by professional nursing regulatory bodies, and where we strive to provide patients with the best possible care, it is essential that students are exposed to research in such a way that they can recognize the significance of using research to support their practice. Unfortunately, researchers continue to find that nursing students may grapple with “putting the pieces together.” There are still significant challenges in assisting students to overcome cultural and conceptual barriers to research and to enhance their confidence in their ability to read and use research in their practice (Dobratz, 2003; Johnson et al., 2010; Meeker, Jones, & Flanagan, 2008).

It is frustrating to know how important and integral research is to professional nursing practice, and yet struggle to engage or communicate this to students. What is at the heart of the issue is to understand the reasons underlying both students’ and faculty’s challenges in learning and teaching research, and to find the most effective ways to stimulate and engage students to enhance the probability that the knowledge and skills gained persist beyond the final paper or examination. The purpose of this paper is to describe creative approaches that we have developed and used in an attempt at making our research courses more vibrant and applicable for undergraduate nursing students. We begin by exploring factors contributing to nursing students’ perception that research is irrelevant to nursing practice and a lack of interest. We then describe some of the range of instructional approaches that have appeared in the literature to mitigate these factors. Finally, we will describe successful approaches that have helped our undergraduate nursing students as well as our colleagues become more comfortable with and knowledgeable about learning and teaching qualitative research.

Factors Contributing to Students’ Attitudes toward Research

The sheer amount of new information, often a new way of thinking (qualitative inductive approaches may seem to contradict the traditional “scientific” or deductive process initially learned in secondary education), all with new language, can be overwhelming. Attitudes toward the idea of reading research may also be biased by a statistics/math phobia (O'Connor & O'Neill, 2004; Sternberger, 2002). As has been described by Rash (2005), a research course “...is seldom a course students eagerly anticipate” (p. 477).

Research jargon remains a significant barrier to engaging students. Students are immersed in learning the language of nursing and health care, and starting to learn what seems to be an entirely new realm of language can be overpowering (Polit & Beck, 2010). In addition, scheduling research courses can be difficult, because if they are too early in the nursing program, it can be difficult for students to relate them to their minimal knowledge and clinical practice. However, if introduced later, students may be more concerned with the challenges of becoming a graduate practitioner in the imminent future, and this makes it difficult for students to appreciate how research could positively
influence their practice, let alone the practice of their profession (Meeker, Jones & Flanagan, 2008).

An additional complicating factor is the knowledge and experience of faculty teaching the research courses. The number of flexible delivery distance courses at the graduate level continues to increase as a strategy to increase nurse educators and researchers (Dicenso, D’Armour, Kearney, & Sheps, 2008). When this is combined with the reality that many graduate students need to work in non-academic settings to meet family and financial obligations (Kernan, Bogart, & Wheat, 2011), some new faculty may not have as much opportunity to practice teaching as a graduate student. Ultimately, it means many new faculty may not be confident in their research teaching skills (Iwasi, Goldenberg, & Andrusyazyn, 2009; Mansour & Porter, 2008; McArthur-Rouse, 2008; Poulin, 2007). Each teacher knows the energy and time investment required to create class or course activities for the first time, so being able to adapt existing activities and resources is important.

Nevertheless, many faculty aim to find creative ways to either inoculate students against an aversion to research, or, more preferably, infect students with a love of research and desire to understand how research relates to the real world of nursing (Mansour & Porter, 2008; Phillips & Bonsteel, 2010). We assume that the more fun the learning, the more likely students will be motivated to learn about research.

Over the past two decades, nursing program research course instructional approaches have moved from predominantly didactic approaches such as lecture and individual written assignments to more small group and experiential learning. For example, today nursing students can complete their own small research projects, collaborate with clinicians to develop and address practice-based questions (e.g., see August-Brady, 2005; Kenty, 2001; McCurry & Martins, 2010; Rash, 2005); work on existing faculty projects (e.g., Mandleco & Schwarz, 2002), and participate in pseudo research projects as a learning process. This includes the “cookie experiment”, as first described by Thiel (1987), expanded by Morrison-Beedy and Côté-Arsenault (2000), adapted to be based on a music intervention suitable for use with distance students (Sternberger, 2002), and still found to be useful (Meeker, Jones & Flanagan, 2008).

Nursing students can also do mini aspects of projects. Some in-class activities include board games (e.g. Lever, 2005). Field work is always popular, including taking students on a Research Conference cruise through the Bahamas as described by Walsh (2001).

Interactive and experiential learning activities that stimulate students using multiple sensory modalities and that provide a sense of mastery are key to fostering a persistent valuing of research (Lesley, 2011). According to Kolb (1984), “learning is the process whereby knowledge is created through the transformation of experience” (p. 38). Learning is accumulative so linking new knowledge through use of analogy and metaphor can be critical in highlighting how much students already know. In turn, this builds confidence in their ability to understand and apply the principles of research, something that they may have previously considered to be unfamiliar, difficult, and therefore, threatening. A basic example of this is likening the research process to the nursing process (Cook & Gordon, 2004).

Activities to engage students range from hands-on doing to discussing with nursing students strengths and limitations of on-going and completed studies. Students are encouraged to consider concepts such as the meaning of reliability and validity in
qualitative research. They can also be engaged in planning strategies towards the next step of a project or a new design to address emergent concerns. These activities fit within the Kolb’s (1984) four-stage experiential learning theory, where immediate or concrete experiences (doing) provide a basis for observations (watching) and reflections (feeling) and observations and reflections form abstract concepts (thinking) which can further generate new implications for action, be actively tested and inform new experiences. Kolb asserts that learning can begin at any one of the four points (watching, doing, feeling and thinking) and should be approached as a continuous spiral (Kolb & Kolb, 2005).

In addition to advancing four-stage learning, the provision of a variety of activities for teaching qualitative research responds to a fuller range of learning styles. Kolb (1984) defines learning styles as preferences between accomplishing a task by watching or doing or else transforming experience by feeling or thinking about it. A student who prefers doing over watching and feeling over thinking about the research experience, will have an accommodating learning style (Kolb, 1976) and may perform well in immediate circumstances. In contrast, a student who prefers to watch and think tends toward an assimilating learning style and may value clear explanations and exploring analytical models over practical opportunity. Two other learning styles (Kolb, 1976, 1981) are convergent (prefer practical applications of concepts and theories) and divergent (prefer to observe and collect a wide range of information). The ability to utilize different learning styles may not come naturally to undergraduate students; therefore, teaching qualitative research in a variety of ways that orient to individual preferences will enhance learning effectiveness.

In summary, it is well documented historically that faculty endeavor to find active and engaging strategies to familiarize and empower students in appreciating research and research findings as practice tools (August-Brady, 2005; McArthur-Rouse, 2008; Phillips & Bonsteel, 2010). A constructivist approach to learning suggests that learning does not only add more knowledge, but should bring about transformation to the learners pre-existing knowledge and that understanding generally happens during this process and will be likely to result in longer fact retention (Fry, Ketteridge, & Marshall, 2009). Curricula components that guide learning for adults with a diverse range of learning styles, needs and motivations need to be engaging, active, and collaborative (Dobratz, 2003; Iwasi, Goldenberg, & Andrusyazyn, 2009).

Collectively, the authors of this paper teach in three faculties/schools of nursing located in Canada and the United States. These faculties/schools offer multiple undergraduate and graduate nursing programs where learners bring various levels of knowledge and experiences. Our courses range from intense six-week courses to semester long courses, in person and via electronic flexible delivery and may include as few as 12 or as many as 110 students. Research is a core element in nursing programs to facilitate student achievement of professional competencies of evidence-informed practice (Peckover & Winterburn, 2003); so, versatility in teaching strategies is key to match the immediate needs of the learners, the size of the classes and the context of the program (Fry, Ketteridge, & Marshall, 2009; Iwasi, Goldenberg, & Andrusyazyn, 2009).

We are all qualitative researchers and have taught research for many years at the undergraduate and graduate levels. We each take the responsibility of mentoring new faculty and try to cultivate a culture of collaboration in developing and refining
instructional strategies. In that spirit, all authors contributed equally substantively and conceptually to this paper. Each one of us had at least one strategy as her original primary and unique contribution; however, three of the strategies are truly collaborative, and all of us use each other’s strategies and adapt them to her own style and needs, so it would be impossible to say to whom they belong. They are shared.

The purpose of this paper is to describe creative approaches that we have developed and used in an attempt at making our research courses more vibrant and applicable for undergraduate nursing students. Some of the strategies described here were originally shared at the 10th Annual International Qualitative Health Research Conference in 2004. Since that time, we have been asked to repeatedly share these strategies in other forums and have discovered an overwhelming need from faculty seeking ways to expand their teaching toolboxes. When we reviewed the literature, we discovered that there is a decreasing prevalence of practical and detailed descriptions of teaching strategies related to general research and qualitative research, not only in nursing but in other health disciplines (Brown & Foy, 2008). We hope this commentary inspires others to adapt and improve our strategies and to share their own.

These strategies were initially developed individually in response to a specific need expressed by students who have struggled to comprehend the current approach or to apply it in other contexts. Some strategies draw from our colleagues’ practice techniques, but typically the strategies are new approaches that could not be found in the literature. As Morse (2006) has noted, qualitative health research is a practical activity and, while there is now a burgeoning number of methodological guides, there remains a paucity of similar guides describing how to teach the critical appraisal and appreciation of qualitative research at the undergraduate level (Poulin, 2007). In nursing, common research undergraduate textbooks outline the research process and evidence-based appraisal approach for both qualitative and quantitative methods and strategies, often within the distinct phases of research. While the intent is to provide a comparison, the effect seems to be that students may unconsciously impose the quantitative assumptions and standards of rigor and goodness to the qualitative portions, thus rendering a clear understanding or appreciation of qualitative research as a distinct paradigm difficult.

The strategies that follow are our anecdotes and strategies for teaching (Table 1). They are effective because they are revealing and memorable, “they bring a message home” (Morse, 2006, p. 1019) and they allow for student preferences and engagement in research at any point of the experiential learning cycle as described by Kolb (1976, 1984). Evolving with each iteration as we shared them with our teaching team, these anecdotes and strategies appear to effectively engage students with a wide variety of learning styles. They have not been empirically tested for effectiveness beyond the general and specific course and instructor course evaluation and our sense of how well students transfer the skills gained through an activity to applications in other courses or examinations.
### Table 1. Teaching Learning Strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Goal</th>
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<tbody>
<tr>
<td><strong>1. Published Abstracts</strong></td>
<td>• Expose students to examples that are more complex than those used in textbooks and provide opportunities to apply their knowledge of research concepts</td>
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<tr>
<td>• Determining whether it is research</td>
<td>• Build confidence and familiarity</td>
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<tr>
<td>• Identifying research paradigms &amp; methods</td>
<td></td>
</tr>
<tr>
<td><strong>2. Sorting Buttons and Flags</strong></td>
<td>• Use analogy to link extent knowledge and skills to qualitative terminology and processes</td>
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<td></td>
<td>• Engage students in qualitative analysis processes such as coding, questioning, describing and interpreting</td>
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<td><strong>3. Crossword Puzzles</strong></td>
<td>• Challenge students to link research terms and definition in a way that is not simple question and answer</td>
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<tr>
<td><strong>4. Multimedia edutainment</strong></td>
<td>• Concept illustration and to relate them to students existing knowledge.</td>
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<tr>
<td><strong>5. Herding Cats</strong></td>
<td>• Employ multisensory information for students to practice doing qualitative research activities</td>
</tr>
<tr>
<td><strong>6. Map making</strong></td>
<td>• Illustrate the power of a priori assumptions in how we understand and make sense of the world</td>
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<tr>
<td><strong>7. Miss Evers’ Boys</strong></td>
<td>• Bring to life the consequences of unethical behavior</td>
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<td></td>
<td>• Demonstrate the link between ethical research and ethical practice.</td>
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<td></td>
<td>• Challenge students to analyze observed actions and apply ethics principles to evaluate them</td>
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<tr>
<td><strong>8. How many patients did you kill this summer?</strong></td>
<td>• Help students reflect on their experience of practice and draw from research to challenge current health practices.</td>
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<tr>
<td><strong>9. Verification charades</strong></td>
<td>• Aid understanding of various approaches to rigor in qualitative research by matching terms and definitions with frameworks for rigor</td>
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<tr>
<td><strong>10. Ethical quest</strong></td>
<td>• Ponder ethical issues associated with the conduct of research including working with vulnerable populations and issues of consent in qualitative research</td>
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</table>
Qualitative Teaching Strategies

Teaching-learning relationships may be pedagogically effective by using creative interactive and active strategies on an individual and group level (Broom, 2010; Junco & Mastrodicasa, 2007) that assist learners to systematically locate, evaluate, and use the best available research (McCurry & Martins, 2010). Thus, while lectures and demonstrations may still appeal to students with assimilating learning style preferences, the doing-feeling-thinking aspects of real life simulations, case scenarios, and multimedia, computer based data analysis oriented toward solving actual clinical issues now complement the core of learning activities and can integrate with the traditional learning from observing. The challenges and strategies in teaching qualitative research are not limited to nursing (Davidson, 2011); indeed, these strategies may be applicable to other professions.

Strategy 1: Published Abstracts

A primary problem with undergraduate general research texts is that they often focus on comprehensive coverage to the detriment of depth. The descriptions and explanations of various methods are necessarily summarized and simplified. Useful texts generally include abstracts or descriptions of real projects, and may even include an exemplar article, short research proposal or research report, often in very small print as an appendix. This is an important first step for students. Unfortunately, there can be a significant gap between these clear examples and descriptions and the reality as seen in published abstracts or reports. For students who become discouraged when faced with a complicated or unclear published research article, we have found that using real, published abstracts forms a useful bridge from textbook to journals. There are “ideal” abstracts and “less than ideal” abstracts, both of which are good for engaging students, because they are short, yet they can guide students in finding information in the full article. Abstracts may be used in their full form, or with key words blanked out, so that students need to use contextual clues to identify their type or research method employed. It is easy and convenient to continually discover potentially useful abstracts by establishing RSS readers, or subscription notification to automatically aggregate information from journals or websites into one easily accessed format that can be organized by class, research area or topic and accessed through mobile, web-based or desktop devices. If you have an RSS subscription to a particular journal, each time the journal is published, the table of contents and links is delivered to your RSS reader. (Readers may wish to find out more at http://www.problogger.net/what-is-rss/). This activity may be staged depending on how familiar students are with accessing and using research abstracts. The initial phase starts from the assumption that students have very little experience in differentiating different writing genres. From this phase, students continue to explore abstracts, developing their abilities to detect important clues to methods and significance as well as important gaps or ambiguity in design.
**Phase 1: Identifying research abstracts.** As early as possible, students can be exposed to the research literature, and helped to differentiate between the different genres of writing and knowledge that may include research, clinical expert opinion, literature reviews or tutorial/educational reviews. Students apply key characteristics describing research to short abstracts in order to determine how they might contribute to best evidence for practice for a range of clinical questions. Questions guiding the discussion range from the kind of knowledge that nurses need to use in their practice, sources of that knowledge, and the strengths and limitations of each genre.

**Phase 2: Determining qualitative or quantitative paradigms.** One of the first challenges for students is differentiating between qualitative and quantitative paradigms in the abstracts of research reports. Often, students will be more familiar with quantitative research reports. The goal is to help students find and apply characteristics and principles of qualitative inquiry (e.g., naturalistic, holistic, contextual, inductive, evolving, etc.) to abstracts. This works well in small groups.

Abstracts are easy to skim. The better students understand how the abstract reflects various aspects of research, the more comfortable they are in reading the different sections. We try to link our selection of abstracts to current projects students may be working on in their nursing theoretical or clinical courses. They learn how to use abstracts and can apply this knowledge immediately in the corresponding course.

The next stage is to present abstracts in which the research paradigm is not clearly identified, often due to poor quality reporting, but also because of lack of coherence between conceptual framework, research question, design, and research strategies (Morse, Barrett, Mayan, Olson, & Spiers, 2002). These examples form the basis for a discussion about the kind of information needed to make a decision, and where this information would be found in the research paper. For example, in abstracts of indeterminate design, students are encouraged to access the entire article and, to their surprise, it often bears little resemblance to the impression that they had gained from the abstract. These kinds of abstracts are useful in helping students predict the likelihood that the design is based on an inductive or deductive research approach.

**Phase 3: Identifying the qualitative method.** In the third phase of this activity, students are exposed to abstracts based on specific qualitative methods (this activity works equally well for quantitative methods). Initially, they review exemplar abstracts and focus on identifying key clues to the method. Following this, students read abstracts from which any mention of the specific method has been removed, leaving the students to identify the clues to guess the method most likely to be used in the research. This activity is most effective in getting students to understand the differences among the methods, and common errors in research design and reporting. For example, a study using grounded theory (GT) probably would make mention of process, a core variable or basic social/psychological process, symbolic interactionism, and analytic constant comparison, substantive theory development, and so forth. On the other hand, an abstract that contains the reference to grounded theory design may, in fact, refer only to the use of constant comparison as a data collection and analysis strategy. It is also important to include abstracts in which it is not clear – that may be “general or generic” qualitative descriptive and exploratory articles. A common example of this would be the use of
“phenomenology” to describe the research approach in the abstract, yet in the article, to see this framed as “exploration of a phenomenon” rather than a particular philosophical and methodological approach. This evidenced lack of coherence promotes discussion about the role of methodological purity, promiscuity, and coherence in qualitative research.

**Phase 4: Are you a methodological purist – or are you more promiscuous?**

Mentioning puritanism and promiscuity in relation to methods invariably elicits laughter and a vivid image of something not necessarily related to research. Consensus and conformity about understanding of what constitutes good method is often taken as an indication of the maturity of a discipline (Kuhn, 1962). Some prominent qualitative researchers argue for methodological conformity or adherence to philosophic and theoretical tenets of the approach chosen while using mixed or multiple methods to attain holistic comprehension of phenomenon (Morse & Chung, 2003), because qualitative health research is a still young sub-discipline (Mayan, 2010; Morse, 2010). Others, however, continue to advocate for the acceptance of generic design based on qualitative principles of inductive inquiry that can potentially answer questions unanswerable with established methods (Caelli, Ray, & Mill, 2003; Thorne, Kirkham, & O’Flynn-Magee, 2004). The debate becomes critical when considering the processes or standards of criteria that could or should be used to evaluate qualitative research. Some qualitative researchers see maximum rigor resulting from the strict adherence to specific requirements of a particular method (Morse et al., 2002). In other words, the defining characteristics of Grounded Theory (GT) need to be adhered to without deviation. We label this school of thought methodological puritan. There is a vast body of qualitative research however, that does not either remain entirely within a methodological approach, or even define a methodological base for the research (Caelli, Ray & Mill, 2003). Instead, it relies on the more general principles of qualitative/inductive inquiry, such as a conceptual framework, articulation of researcher perspective, and so forth. We refer to these, not as the traditional generic designs, but as researchers who are more methodologically promiscuous, because they select research strategies based on epistemological assumptions rather than specific methodological ones.

The merits and disadvantages of either approach can be debated endlessly. The reality in the published research, however, is that both approaches are evident. The pertinent issue is then how to determine appropriate criteria of rigor or trustworthiness. It is important to expose students to both sides of the debate, and to discuss when and how methodological purity may be desirable, and when it may inhibit the potential for the researcher to explore the phenomenon or the context (Caelli, Ray & Mill, 2003). It is also important to include, as part of this discussion, the notion of research as a political process in that as with any other human endeavor, research methods are favored, or less favored over time in response to economic, social, and philosophical forces (Denzin & Lincoln, 2005).

**Strategy 2: Sorting Buttons and Flags**

A class on data analysis, and introduction of terms such as thematic analysis, constant comparison, open coding, themeing or any of the other terms can be the perfect
treatment for insomnia! These are not constructs that are easily comprehended, and the analysis section of a research paper is the section most often skipped over by novice readers. Sorting buttons is a classic activity that makes sense to students, engages them, and helps them understand the basic aspects of qualitative analysis. It appears to be a simple activity on the surface, but it is an excellent way to show in practice the processes and strategies qualitative researchers use to make sense of their data and to explain their findings. It is also an activity useful to help students understand the fundamental difference between description and interpretation. Both processes are integral and intertwined in many qualitative approaches, but failure to provide evidence of the description prior to the interpretation is a major threat to trustworthiness of findings (Wolcott, 1994). This sorting activity is a way to demonstrate the meaning of terms used in data coding, such as labels, in vivo codes, open coding, descriptive and theoretical codes, thematic analysis, and constant comparison (Byrne, 2001).

Students (in pairs or threesomes) are provided with a pile of buttons and asked to “sort them in a way that makes sense,” and to talk aloud how they are sorting as they go. Students then describe their piles, and why they sorted them in that manner. Some students will sort by color, others by size or shape. Occasionally, a student will sort by function or the type of clothing they may once have adorned. Talking through sorting decisions and labeling decisions engages students in discussions about the assumptions they brought to their work. Including objects that would appear not to “fit” such as coins, buckles, or craft “googly” eyes provide a means to challenge assumptions about “what a button is” and how unusual cases or incidents are treated in qualitative inquiry. This activity can then be extended to talking about how research questions can be asked from a number of methodological viewpoints, from describing the essence of buttons, to classifying the use and function of buttons.

A variation of the sorting game is to use pictures of flags from a variety of countries. In this rendition, students also sort with colors and designs, but in addition, because of a priori knowledge, they will also sort by language spoken in the country, continent of the country depicted in the flag, religion associated with symbols on the flag, and personal knowledge or contacts. A key discussion point is to ask the students, “If you were a Martian visiting earth, you may know nothing about these pictures. How might your understanding/analysis change?” A Martian might sort by colors, shapes, forms, but would not have been able to sort beyond the superficial appearance.

### Strategy 3: Crossword Puzzles

Crossword puzzles are a good way for students to test their own understanding of qualitative terms. There are excellent examples in the literature, for example Beck’s (1986) crossword puzzle focusing on basic research terms, and Damrosch’s (1994) example for qualitative terms. There are free crossword puzzle creation programs on the Internet (search for “crossword puzzle maker/software” to find free and purchasable options). Students prefer this activity over other strategies of descriptive question-answer formats. Students also like to create their own clues and answers. Warning, these tend to be more difficult than anything an instructor would construct!
Strategy 4: “Edutainment” using Electronic Multi Media

**Edutainment** is the recently coined word to describe the ancillary instructional use of multimedia resources, such as television and video that is particularly suited “to our visually oriented, electronically mediated and performative culture” (Saldaña, 2009, p. 248). Multi-media can be used as devices to stimulate class discussion, illustrate concepts, and encourage participatory exercises to clarify concepts that are hard to grasp from a text book. For example, Chenail (2008) provides a useful guide to the rich reservoir of videos on YouTube. Saldaña (2009) uses popular movies (e.g. the Matrix) to illuminate philosophical concepts of epistemology and ontology in qualitative research. Saldaña provides an excellent description of using film excerpts in which “art imitates qualitative life, and art is used to teach the science of naturalistic inquiry” (p. 259). However, one of the dangers of using popular media is the rate at which the media passes from the popular mind. While showing movies in class may be time consuming, students do like to access streaming video in their own time and are often more likely to complete this as a pre-class preparation activity than they are to read a chapter of a textbook (Black, 2010; McCurry & Martins, 2010).

Audiovisual resources can teach by providing examples of poor practices. For example, poor interviewing techniques can be seen in John Cleese and Rowan Atkinson’s skit on “Interview on Beekeeping” from the Secret Policeman’s Ball (1981). Alternatively, the movie “Stranger than Fiction” (2006) shows Kristen Chenoweth interviewing authors without ever bothering to read the book, or being able to stay on track, not to mention inappropriate interviewing skills. These clips may be found on www.youtube.com.

Popular commercial films tend to be engaging. Monty Python videos, such as “The Birth” from the 1983 Meaning of Life provide opportunities for students to practice their skills at participant observation, and inductive coding and theming. Un-narrated documentaries by small independent film makers are also useful sources of “data” to practice with. Educational institutional licenses are very reasonable, and most small independent companies will work with the library to provide them as streaming videos. West 47th Street (2001) is a cinéma vérité portrait of four people struggling to recover from serious mental illness over a period of three years as they deal with drug regimens, health issues, group homes and work programs. An alternative, shorter film is “Unbreakable Minds,” an hour long movie following three men in urban Chicago living with severe mental illness (Neidik, Angelico, & Hayes, 2005). Dying at Grace (2003), also a cinéma vérité film, follows five patients dying in the Salvation Army Toronto Grace Health Centre. We will often try to match the movie content with content students may be using in other courses. For example, if students are working with mental health nursing issues in their tutorial or clinical courses, using Unbreakable Minds provides a vivid link between the theory of illness, nursing practice, and the lived experience of mental illness. In the same way, Dying at Grace is particularly pertinent when students are learning about palliative care.
Strategy 5: Herding Cats and the Canadian Rodeo Finals

In this activity, we invite students to “saddle up” (get ready to ride) with a renegade gang of cat herders who are herding 10,000 cats across wild and rugged country. This activity engages students in considering the conceptualization and field work phases of qualitative inquiry, differentiating among types of methods and data collection and analysis processes. The activity is based on a television commercial, advertising EDS Electronic Data Systems that appeared in 2000. This commercial, a “spoof” of cow herders, provides opportunity to practice observation and in vivo coding, and to think about alternative data sources and forms of data. To implement this activity, students are introduced to the phenomenon of cat herding and asked to brainstorm potential exploratory research questions within various methods, for example, “What is the process of becoming a cat herder?” (grounded theory). The worksheet (see Table 2) starts from an ethnographic approach and asks students to describe cat herders, their appearance, behavior, norms, and values. This activity is effective in helping students differentiate between description and interpretation, and to consider aspects in research as data sources, sample variation, researcher assumptions, and data that do not seem to fit.

Table 2. What is the Culture of Cat Herding? Strategy Teaching Moving From Description to Interpretation

<table>
<thead>
<tr>
<th>Strategy: What is the Culture of Cat Herding? From Description to Interpretation</th>
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<tbody>
<tr>
<td>What are the norms, beliefs, values, expectations and behaviors of cat herders?</td>
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  A. What defines a member of the Cat Herder’s group? (cultural boundaries: Who should we talk to? How should we collect the data? What kind of data is needed? Can any researcher do this research?)

  B. Describe a cat herder in terms of appearance, interpersonal behavior, manner.

  C. What things matter to the individuals within the group? (expectations, beliefs, values)

  D. How does a person gain status or lose face within the group? (Norms and behaviours).

  E. What issues are dealt with versus what issues are ignored?

  F. What are examples of negative/deviant cases?

  G. What other situations could we examine to determine the extent to which this cultural group is unique?

Strategy 6: Map Making from “This American Life”

One of the hardest concepts for students to grasp is the notion of how a priori assumptions influence worldviews and thus, research processes in qualitative inquiry. A radio documentary called “Mapping” by This American Life” (WBEZ Chicago, 1998)explores ways of mapping the world, which represent different perspectives of looking at the world. In this episode, a cartographer, Denis Wood discusses the maps he has made around his own neighborhood, for example, the location of all the Halloween pumpkins or a map of all the graffiti in the neighborhood. As students listen, we pause...
the show and ask them think about what such a map would look like – and to draw it. Alternatively, students are sent to create maps of their immediate surroundings – for example, a map of all the signs in that floor of the building, or a map of the trees and bushes outside. Generally speaking, students will start with a template – a blueprint of the walls and corridors of the floor, or the location of buildings and paths for the garden map. As is revealed in the radio show, Wood does not include any of those features – he maps only those things being mapped, for example, only the pumpkins’ location in relation to each other, or power lines, or whatever the phenomenon of interest happens to be. This program provides a 15-minute revelation about how we construct understandings based on implicit assumptions about our world, which may be quite distinct to what may be observed. The website also provides links to some of Wood’s maps (http://www.thisamericanlife.org/Radio_Episode.aspx?episode=110).

Strategy 7: Identifying Violations of Ethical Principles: The Tuskegee Study

Understanding the relationship between context and ethical issues requires subtle understanding of issues that are not “black and white.” The Tuskegee Study, a federally funded study, explored the prevalence and morbidity of Syphilis among African-American males in Tuskegee Alabama between 1932 and 1972 (Reverby, 1999). Some subjects were treated during the initial stages of the study; however, when funding ran out and was later reinstated, the subjects were subjected to observational measures only, despite the availability of Penicillin in the late 1940’s. The majority of the subjects were unaware that effective treatment was being withheld (Reverby, 1999).

An HBO Emmy and Golden Globe Awarded Home Video entitled “Miss Evers’ Boys” (Feldshuh, Bernstein,, & Sargent, 1997) vividly portrays the historical trajectory of this collaboration of intentional mistreatment as a research practice that US President Clinton labeled as “something that was wrong, deeply, profoundly, morally wrong,... it was an outrage to our commitment to integrity and equality for all our citizens” in his presidential address (Harter, Stephens, & Japp, 2000). The video features a re-enactment of the congressional hearings that were held in 1995, during which both the physicians and nurses involved during the course of the study were required to testify. Viewing the video is a powerful vehicle through which students gain an awareness of the importance of maintaining rigorous ethical and scientific conduct that applies not only to research processes, but also to their future practices as Registered Nurses. It is a way of exploring how context, particularly gendered and racial inequalities may make certain populations more vulnerable, and lastly, how complex real life ethical situations may be.

Learning activities can range from identifying ethical principles violated during the study to applying ethical principles to research and clinical situations. Alternatively, the movie can be explored in small groups in order to study in detail one particular ethical principle. Following this, the class can hold a debate, with each group explaining why their chosen principle was the most important and most violated in the Tuskegee incident, and since that time. This debate helps illustrate how ethical issues in clinical research are still occurring and what their own roles as individual clinicians, professionals, and members of society can be to foster ethical conduct in research and to advocate for the people they nurse.
Strategy 8: How many patients did you kill this summer?

The purpose of this activity is to highlight the political nature of qualitative research, and the ability of researchers to positively influence professional practice and patient care. Starting a class with this question is guaranteed to attract the attention of students as they are shocked by the apparent allegation that nurses, or dietitians or speech therapists or physicians could deliberately contribute to the death of their clients in long-term residential care. Many nursing students find summer employment as unregulated health care workers (e.g., as nurse aides) during the long summer vacation, and many may have stories of less than desirable personal care provided to long term care residents (e.g., see Happell, 2002). Dr. Jeanie Kayser-Jones, a nurse anthropologist, is an advocate for the plight of elderly people who reside in nursing homes and clearly exemplifies excellence throughout decades of research exploring the factors, issues, and situations that influence the quality of life for nursing home residents in a way that speaks to both the professional and personal experience of students in a range of health professions (Kayser-Jones, 2001). Students recognize many of the factors - the lack of well-fitting dentures, the lack of time to help feed people, the lack of adequate swallowing assessments, the use of unappetizing pureed foods and the paucity of ethnic foods.

Not only are Kayser-Jones’ research reports compelling in that quantitative and qualitative results are interwoven to represent the complex array of factors that adversely influence elder care in nursing homes, but her other writings speak to the political issues around research and how, specifically, her research led to profound changes in legislation and standards of care in long term homes at the local, state, regional, and national levels in the USA (e.g., see Buckwalter et al, 2001; Harrington et al 2000; Hawes & Kayser-Jones 2003; Kayser-Jones, 1997, 2001, 2002, 2003; Kayser-Jones, & Kapp, 1988; Walent, & Kayser-Jones, 2008; Wiener & Kayser-Jones, 1989). Her body of work expressed in research articles and case studies provides a forum for discussing the ethics of care, and how individual actions constitute, and are constituted by, the institutional culture of long term care provision for elderly people.

Dr. Kayser-Jones’ work provides a vehicle for discussing another aspect of research that nursing students often are wary of- the ability for a lone individual to introduce research to change practice. This body of work (we use 71 references) provides a context for discussing political action, change, and individual RN expectations throughout a clinical career. Some guiding discussion questions for the “Kayser-Jones File” are shown in Table 3. A recorded audio podcast interview gives students access to knowing Dr. Kayser-Jones as an individual and practicing nurse, as well as how her clinical passions and commitments influenced her research program and goals (Mason, 2009). This body of work is highly effective at helping students delve into a distinct body of work and to simultaneously grasp the importance of research and of striving to maintain an evidence-based practice as future health professionals.
Table 3. Strategy: Guiding Questions for Kayser-Jones Body of Literature

<table>
<thead>
<tr>
<th>Guiding Questions for the “Dr. Kayser-Jones File”</th>
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<tr>
<td>• There is a range of challenges in this body of work. They range from the political ramifications of describing how some residents can, essentially, starve to death, to ethical issues or emotional challenges in doing such research. How do you think Dr. Kayser-Jones has managed to continue her research when her results from particular agencies highlight the poor care?</td>
</tr>
<tr>
<td>• How do you think she works with the nurses to move toward better patient care goals?</td>
</tr>
<tr>
<td>• How has she harnessed political power at the local, state, regional, and national levels in both long term care and government settings in order to affect the kinds of changes we have seen? Can her strategies and methods translate to the other contexts? Do we see similar lapses in care of the elderly in long term residential settings in our community?</td>
</tr>
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Strategy 9: Verification Charades

Imagine students acting prolonged engagement, or debriefing. This game-based activity helps students become comfortable with terminology around models of rigor within the approaches of qualitative research. Students start by matching terms and definitions and sorting these into discrete models of rigor (e.g., reliability and validity, trustworthiness, verification). Some terms are common across models, others may have different interpretations, and some are specific to particular models (Creswell & Miller, 2000; Morse et al., 2002).

This is a fairly time-consuming game, because even if students have completed the pre-requisite reading, there tends to be significant consultation with the textbook. Charades then becomes a review as well as a forum for discussion about the philosophical differences underpinning the models. It helps students sort myriad terms associated with rigor under such headings as postpositivist, interpretive, and critical theory paradigms, and then to look for similarities in terms within and across the paradigms.

Strategy 10: Ethical Quest

Ethical quest is an interactive question and answer board game, where students, in teams, challenge each other to address issues in areas such as working with vulnerable populations. Overall, the goal is to assess understanding of ethical terms and practices when using them in different contexts. Components of the game include: Special situations and populations, ethical review process, ethical principles, and general questions. Each section is printed on different colored cards, and teams must get one question right from each category. Seems easy? This game can continue for two hours! Students like to study by it, so have a spare copy of cards that students can sign out or borrow.
Table 4. Sample cards for Ethical Quest Strategy

<table>
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<tr>
<th>Sample cards for Ethical Quest: (Board is also available)</th>
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<tbody>
<tr>
<td>Q: Why is it unacceptable to treat persons solely as means (i.e., as objects or things)?</td>
</tr>
<tr>
<td>A: This fails to respect their intrinsic human dignity. It is required that the welfare and integrity of the individual remain paramount in human research.</td>
</tr>
<tr>
<td>Q: How does the Canadian Tri-Council Policy Statement define vulnerable persons?</td>
</tr>
<tr>
<td>A: Those with diminished competence and/or decision-making (e.g., children, institutionalized persons).</td>
</tr>
</tbody>
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Success of our teaching approach

The teaching-learning strategies presented in this paper appear to be successful for a number of reasons. They are safe learning activities as opposed to working didactically, during which instructors might call upon shy or reluctant individuals to provide an opinion, response, or answer. These activities allow all students to participate and practice first in their own small group (Black, 2010; McCurry & Martins, 2010). Practicing skills such as saying “epistemology” and “phenomenology” in a small group also reduces the threat of the jargon.

One advantage of these approaches is that they present a bridge between similar processes that students may be familiar with in real life, and the research process as described in their texts. Textbook scenarios and examples are already “thought through” – they are exemplars, and might not encourage the student to consider the noise, context, or complications that often occur. The teaching and learning strategies we have put forward help reduce the teacher-student hierarchy, as the students take control of the games and the instructor is truly a facilitator. The instructor does not need to have all the answers, but instead can facilitate students to be their own teachers and to draw upon their instructors’ expertise (Black, 2010). Additionally, many of these strategies are congruent with a more nonlinear learning style in that they provide a story with context, and students can experiment and explore within that, seeking information in their own order. In terms of the ethical principles activity, students can start from their own understandings of ethical conduct and explore research ethics, or conversely, learn the abstract principles and work with them in the context of the life-like example. Diversity of students’ learning styles and backgrounds means that faculty need to incorporate flexible, multisensory, and active approaches (Black, 2010) that highlight components of doing, watching, feeling and thinking to match student preferences and contributing to learning effectiveness (Kolb, 1984). Gaining knowledge about, and developing a positive attitude toward research is the first step toward evidence-informed practice (Rodgers, 2000). Strategies for engaging students in learning about research need be congruent with pedagogical principles of adult learning and the characteristics of the teaching-learning environment (Broom, 2010; McCurry & Martins, 2010). There are many ways creative faculty can attract and engage student’s interest in research whether or not the class is large or small, over a long period of time or in condensed and intensive courses. While it would be ideal to be able to show empirically that these strategies have significant advantages over more traditional approaches, we note that a major limitation to such comparative research is that the basic fundamentals of research knowledge and
skill often serve as a precursor to the more exciting, activity-based innovations around doing research. For example, in a recent study, McCurry and Martins (2010) found that small group work and collaboration with clinical courses are perceived as more effective than the traditional assignments, such as critiquing research articles, library orientations on nursing databases and reading the textbook or listening to lectures by either faculty or clinical nurse researchers. Students need to be engaged in those very foundational activities that expose them to research language and structure in order to help stimulate and inspire nursing students to continue to explore research (Irvine et al., 2008). These strategies help engage students and foster their active participation in their own learning.

**Conclusion**

In undergraduate nursing programs, students are challenged to overcome the jargon, complexity and unfamiliarity of core research courses. To ensure that students are engaged and thus develop habits as research consumers, nursing educators must help the students perceive the significance of qualitative research in contributing to their knowledge of health, client, nursing, and healthcare delivery. The learning activities we have described can stimulate both students and educators to use multiple learning modalities in a collaborative and fun manner. In sharing our collective experience and ideas with each other, we realized we could transform activities originally designed by others into our own activities for our contexts, as well as brainstorming new ones. Readers who teach research could expand the circle of collaboration and continue to develop the repertoire of activities available to educators. Although we clearly recognize that our examples are within the nursing context, we believe they can be adapted to meet the needs of other disciplines. It is a matter of educators using their creativity and not being afraid of bringing the notion of play to learning about a topic that is sometimes considered the ultimate serious endeavor.

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