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The Science and Art of Nursing: A Purposefully Designed Integrative Assignment

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The Science and Art of Nursing: A Purposefully Designed Integrative Assignment

Abstract

This article outlines the process of how the author purposefully designed an integrative assignment to meet the real-world needs of a nursing cohort, First-Year Seminar anchored learning community. The author provides evidence from her own teaching practices to explore the elements that contributed to the construction of this assignment. For example, it was projected that nursing students need to develop two nursing habits of mind- to develop an inquiring mind and to develop a critical understanding of diversity. These nursing habits of mind were intended to introduce nursing students to both the science and art of nursing. She concludes the article with advice for practitioners working in learning communities on how to design their own intentional integrative assignments.

Keywords

Undergraduate Research, Nursing, Habits of Mind

Cover Page Footnote

The author wishes to thank her husband and their four children for their continued support.

The integrative assignment is the fabric of the learning community (LC); it should seamlessly bind two or more courses together, providing students with “curricular coherence, integrative, high-quality learning; collaborative knowledge-construction, and skills and knowledge relevant to living in a complex, messy, diverse world” (Lardner & Malnarich, 2008, p. 35). But if not done thoughtfully, it can lead to shallow learning experiences. This article describes a purposeful integrative assignment designed for *One Small Spark Can Light a Fire*, the learning community created for nursing-interest students at Kennesaw State University (KSU). Our goal was to offer our students the opportunity for deep learning experiences that would require them to be “challenged to explore and address real social problems or find answers to work-related questions and issues” (Fogarty & Dunlap, 2003) relevant to the field of nursing.

I am a First-Year Seminar instructor who has been working with first-year college students since 2015 and has been teaching in learning communities since 2017. *One Small Spark Can Light a Fire* links my First-Year Seminar (FYS) with Introduction to Sociology, taught by Dr. Wendell Johnson, thus integrating two High Impact Practices (HIPs)—LCs and FYSs. Our LC is housed in KSU’s THRIVE program, which consists of first-year college students who are high achieving and HOPE scholarship eligible¹. We created this LC with the goal of offering these students the opportunity to find safe spaces to face challenges in a cohort and to “build a supportive environment that contributes to students’ sense of belonging” (Maltby, Brooks, Horton & Morgan, 2016, p. 12). Since this THRIVE cohort would be mainstreamed with non-THRIVE LC students in the sociology course, the first-year seminar acted as the anchor course, providing integration of the content of the two courses. This allowed for a more completely embedded learning opportunity (Steiner, Dean, Foote, & Goldfine, 2013).

Purposeful Design of the Integrative Assignment

The population of this LC consisted of twenty-two nursing-interest majors, the majority of whom were planning to apply to KSU’s WellStar School of Nursing. Since we were designing the integrative assignment for nursing students, we needed to consider real-world problems that nurses face. As a large portion of the U.S. population ages, more strain on our health care system and nursing shortages will place the greatest need for nurses in the field of gerontology, with the most critical need for nurses in home care services, rehabilitation centers, assisted living, and hospice care. In addition, with a renewed focus on quality of care due to the Affordable Care Act, many health care organizations are turning to evidence-based nursing practice (EBNP), a problem-solving approach to nursing described by Dearholt and Dang (2014). EBNP encourages nurses to take a hands-on approach to patient care in that it requires nurses to ask questions, gather evidence, and then translate and evaluate their findings into new practices. In addition, EBNP suggests that nurses need to possess certain attributes associated with critical thinking, such as humility, courage, empathy, integrity, perseverance, confidence, adaptability, and open-mindedness

KSU’s Wellstar School of Nursing focuses on helping students develop the critical thinking skills needed for a scientific, evidence-based approach to nursing. Further, KSU’s nursing program positions caring as the foundation of all inquiry and argues that it is the core component from which professionalism and holistic healthcare derive. Nursing can thus be seen as both a science and an art, and so requires nursing students to develop two habits of mind—critical thinking skills and respect for diversity—both of which we sought to cultivate in this learning community

¹ A college scholarship program in the state of Georgia.

The Importance of Developing an Inquiring Mind

The science of nursing requires nursing students to be proficient in critical thinking skills, that is, nurses must be able to make informed judgments in determining the best approach to care. A nurse might receive a doctor's order that severely conflicts with his/her foundational knowledge. Or a nurse might have to make a quick emergency care decision. Therefore, nurses need to have an ever-constant inquiring mind, which is the ability to seek, question, and evaluate information to make informed judgements. We decided that our nursing students would need to be provided with a model of how to develop an inquiring mind. Critical thinking skills cannot be developed instantaneously; instead, their development involves a prolonged, hierarchical process. As noted in Bloom's Taxonomy, applying the most advanced critical thinking skills requires previous mastery of lower level skills. Since the most effective way to develop advanced critical thinking skills is to engage in repeated, prolonged practice, Dr. Johnson and I saw undergraduate research, an additional High Impact Practice, as the perfect catalyst to begin to develop an inquiring mind since it involves the extended application of critical thinking skills to solve problems.

The Importance of Developing a Critical Understanding of Diversity

The art of nursing requires nurses to demonstrate critical attributes such as empathy and compassion that are necessary to providing individualized care, and future nursing will demand that nurses care for an aging *and* increasingly diverse population. Because care should not be impeded by personal biases, we felt it was important that learning experiences for our students help them become aware of and challenge their own implicit and explicit biases so that they can provide the same quality of care for all people.

Synthesis: The Integrative Assignment

Given the needs of nursing students identified above, we created five enduring questions that would serve as the foundation of our LC's integrative assignment. Continuous exploration of these enduring questions would provide students with multiple opportunities to engage in conversations about diversity and its importance to the nursing field. Dr. Johnson and I chose the following five questions:

- Are all people deserving of respect?
- What are the professional qualities you need to bring to the healthcare field?
- Do you have individual biases/prejudices that would impact your ability to provide effective healthcare?
- What is your greater purpose as a health care worker?
- How is understanding diversity important in the field of nursing?

Supported by these enduring questions, we designed our integrative assignment to require students to demonstrate continuous inquiry by completing a five-part, semester-long, project interwoven between the FYS and Sociology. Recognizing the importance of offering students multiple opportunities to engage in HIPs, we decided to focus their research on diversity/global learning and community-based learning. Folding these HIPs into the integrative assignment provided additional learning experiences that we felt would be invaluable to our nursing students. For example, through undergraduate research, students would develop skills such as problem-solving, critical-thinking, and interdependent skills necessary for evidence-based nursing

practices. And requiring primary research, by having students conduct surveys of other college students, would help our LC students identify the need to understand youth perceptions of the geriatric population. Finally, participation in co-curricular activities would situate their learning within the local geriatric community.

Since the integrative assignment needed to align with our learning objective for students to develop nursing habits of mind and since non-THRIVE LC students were also seated in Sociology, we had to determine how to divide assessments in both courses. We decided that students would complete individual assignments in the sociology course and would work in research groups in the seminar. Working in collaboration would both mirror the interdependent skills they would need to develop as future nurses and kindle a sense of community among group members. Formative and summative assessments were divided between the two courses, but the culmination of the integrative assignment, a final presentation, was housed in the first year seminar. In addition to the five enduring questions, we asked students to focus their research on the geriatric population by asking them to consider the nine guiding questions when creating their presentations:

- What roles do individual senior citizens play in your life as a nursing student?
- How do you relate to and interact with older people?
- What role do senior citizens play in neighborhoods and communities, in cities, and in states?
- What are social issues that senior citizens face?
- How are senior citizens viewed by the younger generation?
- Why is it important for nursing students to understand geriatric issues?
- What did you learn from your research?
- Why is your research important?
- What can you teach other nursing students about geriatric issues?

The Five Step Integrative Assignment

Identifying a Social, Economic or Health Issue that Affects the Local Geriatric Population

The first step of the integrative assignment began during the first few weeks of the semester in both courses. In sociology, students individually identified a local social, economic, or health problems confronting senior citizens, such as homelessness or loneliness, and wrote an essay about it. Students were then assessed on their individual essays in the sociology course. Students who were also in the seminar received a submission grade by sharing their individual essays with me as a Google Doc.

After this initial paper submission, students, who had already started to form unique friendship groups in class, chose their own research groups. Working with each group, I helped the students combine their research topics from their individual papers in sociology to narrow their common research interests. Each research group then began to develop preliminary research questions. And as a class, students developed the survey questions that would serve as a foundation for them to create an argument about why young nursing students should care about geriatric issues. During this phase, students also completed research ethics and compliance training, earning CITI certification, and then applied for Institutional Review Board (IRB) approval to conduct the survey

Identifying a Local Agency or Organization Addressing the Issue

For the second stage of the integrative assignment, students in sociology individually researched a local agency that focused on one of the social, economic, or health issues that the groups had researched in the first step. The purpose of this second step was to help students identify local agencies working to shed light on geriatric issues in the local community, which would help students understand the local impact of geriatric issues. Again, students were assessed on their sociology essay and received a submission grade by sharing their essay with me as a Google Doc. After this submission, students conferenced with me again to further narrow their research questions. To aid in the transfer of their individual research to the group project, students created a storyboard using Trello.

Analyzing the Issue from a Theoretical Perspective on Aging

The third step of the assignment required students in sociology to apply a theory of aging in a paper that combined their research from the first two steps of the integrative assignment. Students were asked to summarize the aging theory they selected (for example, age stratification, disengagement, etc.), discuss its key characteristics, and explain how it applied to the issue they were researching. Students were assessed on their final submission to sociology, which was also shared with me as a Google Doc. Both Dr. Johnson and I conferenced about the development of students' ideas during the progression of these three phases.

After completion of this step in the sociology course, each group continued to build on its research to complete the remaining two steps in the seminar. During these last two phases of the assignment, students also participated in the National Walk to End Alzheimer's and visited the Cobb Senior Services Center Assistive Technologies Lab, two targeted cocurricular activities that corresponded with their research.

Data Collection and Analysis

During this phase, one designated student researcher from each research group conducted a qualitative survey of five KSU students between the ages of 18-24, chosen at random. The student researchers asked each participant to respond to each of the following two questions:

- Can you provide three adjectives describing people over the age of 70?
- Can you provide three adjectives to describe an older relative?

After the student researchers collected the data, they workshopped extensively with me to interpret the data. For each question, students coded the adjectives into two categories: negative connotations and positive connotations. Students then completed a cross-analysis of the codes for each question to determine if there were any recognizable patterns in the data. For example, were participants more likely to provide positive adjectives for an older relative versus someone over the age of 70? If so, how could this be interpreted? If not, how could this be interpreted? What does this mean for youth perception of the geriatric population? What does this mean for you as a nursing student? After the cross-analysis, students created a graphic representation of their data.

Application: Creating an Abstract and a Final Presentation

The fifth and last step of the project was the most difficult. It required students to utilize their developing critical thinking skills to incorporate their work on the integrative assignment thus far

into a cohesive presentation. During this phase, I conferenced extensively with students, both in and out of class. While students worked to combine all components required for their presentation, they also simultaneously worked with me to revise two abstracts for KSU's Annual Learning Communities Extravaganza and the National Undergraduate Research Conference (which will be hosted by KSU in Spring 2019).

Preliminary Results and Possible Future Directions

Preliminary Results

At the end of the semester, I administered a qualitative survey to assess the degree to which students believed that having a critical understanding of diversity and an inquiring mind were important for nurses and the degree to which students believed the LC helped them to develop these habits of mind. Based on this survey, I found the following:

- The majority of students felt that it is either important or extremely important as a nursing student to develop a critical understanding of diversity.
- The majority of students felt that it is either important or extremely important as a nursing student to develop an inquiring mind.
- The majority of students felt that this learning community fit their needs well, or completely fit their needs as a nursing student to meet the projected need in developing a critical understanding of diversity.
- The majority of students felt that the learning community fit their needs well, or completely fit their needs as a nursing student to meet the project need in developing an inquiring mind.

To determine how well we met our LC learning objectives, we implemented various assessment strategies. During the first three steps of the integrative assignment, Dr. Johnson and I each assessed students' essays to check for evidence of developing the nursing habits of mind we had identified—critical thinking skills and respect for diversity—after which we shared our findings with each other. In addition, I observed how students demonstrated these two nursing habits of mind as I worked extensively with them to help them combine their research into complete presentations. Through these assessments, we were able to determine that students demonstrated satisfactory evidence of the development of nursing habits of mind. An example of this evidence can be seen in one student's response in the seminar's final exam's reflective essay:

Diversity is a very important thing that everyone should understand coming into the workplace. In healthcare, you're always going to run into situations that may be different than what you're used to and especially people you may never have encountered as well. Our job as healthcare professionals is to make sure that everyone has an equal opportunity, and make sure they're getting the best service as the person next to them. Having a closed mind in a field like this isn't suggested or recommended and its also not fair. Many people go to places expecting help but many are turned down and rejected. My greater purpose as a healthcare provider is to ensure that everyone gets the best treatment they could possibly receive whether they're my patient or not. Its really just about creating some type of safe, trustful relationship to make the other person/people wanna come back to you. I would love

to help change the medical field by helping to provide research and figuring out ways to lower costs for those who may not be able to afford it.²

Possible Future Directions

We believe that our integrative assignment provided the type of learning opportunities for our students that we had hoped to achieve. However, upon reflection I would suggest some revisions to the original integrative assignment. Since we had to tailor the assignment to fit into a sociology course that enrolled both THRIVE LC and non-THRIVE LC students, we had to figure out a way that the sociology professor could assess both groups of students without adding work for him or for the THRIVE LC students. However, this required students to take their ideas from their individual sociology papers to expand on them to complete the group project in the First-Year seminar, which elicited some frustration and confusion for the students. I would recommend using this integrative assignment in two integrated courses that are comprised only of the same LC cohort, in other words, that do not have other non-LC students seated in that course. This would allow for the integrative assignment to be completed in the same research groups in both courses, making it easier for students to conceptualize the final project. On that note, I would also suggest conducting a Scholarship of Teaching and Learning (SOTL) study to further assess the quality of the integration of the assignment and to further explore students' perceptions of the integrative assignment.

Conclusion

When designing purposeful integrative assignments, Lardner & Malnarich (2008) suggest using a seven-step heuristic. Based on this heuristic, the outline below identifies how, as instructors of Introduction to Sociology and the First-Year Seminar, Dr. Johnson and I addressed key questions when designing our integrative assignment for nursing-interest majors:

1. *What will the integrative assignment look like?* The integrative assignment would be cumulative and would require multiple components completed in each course. Assignments completed in sociology would have to be accessible to the non-LC students in sociology. And assignments completed in the first-year seminar would have to build upon assignments completed in sociology.
2. *What will be the shared learning outcomes that the integrative assignment will target?* Our shared learning outcomes were that students would develop two nursing habits of mind: inquiry and critical understanding of diversity.
3. *What ways will you involve interaction with the community?* We chose co-curricular activities that required students to engage with the local organizations involved in the geriatric community.
4. *What will students need to do to prepare for this assignment?* Students would have to complete CITI training, seek IRB approval, conduct surveys, and participate in community engagement activities.
5. *How will you assess learning?* We used the five enduring questions to monitor students' development of the two nursing habits of mind. We used multiple points of assessment in both courses throughout the duration of the LC.

² The student's comments are presented exactly as written, without corrections or editing.

6. *How will students assess their growth?* Students were asked to reflect on the enduring questions throughout the semester in both courses. Students also reflected on their growth at the end of the semester with the completion of a reflective, final exam in the first-year seminar.
7. *How will you disseminate student work?* Students' work was disseminated at KSU's Learning Extravaganza, at which two out of the five research groups in our LC won awards—the Campus/Community Engagement Award and the Integrative Learning Award. A third group was asked to publish in KSU's First Year and Transition Studies Digital Commons journal, *Navigations*. In addition, three of the five research groups that submitted proposals to the National Undergraduate Research Conference were accepted.

In conclusion, carefully designed, purposeful integrative assignments provide an opportunity for students to engage in deep learning experiences in the context of real-world issues and “as students' understanding of an issue evolves skills are contextualized, as are habits of mind” (Lardner & Malnarich, 2008, p.35). In purposefully designing an integrative assignment for our Sociology and First-Year Seminar courses in *One Small Spark Can Light a Fire*, Dr. Wendell Johnson and I identified two habits of mind that our nursing students would need. We determined that nurses need to have an inquiring mind, which is necessary to mastering the science of nursing, *and* a critical understanding of diversity, which is necessary to mastering the art of nursing. It is my hope that our integrative assignment can serve as an example of how to develop integrative assignments that are intentionally designed to meet the real-world needs of specific student populations.

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