The Journal of Effective Teaching

JET

an online journal devoted to teaching excellence

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The Journal of Effective Teaching
an online journal devoted to teaching excellence

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Letter from the Editor-in-Chief: How Long Does It Take to Prepare for Class?

Russell L. Herman¹

The University of North Carolina Wilmington, Wilmington, NC

A potential hurricane threat, enough to cause the local symphony to turn away Shostakovich, Rachmaninoff, and Tchaikovsky, ended up canceling class and thwarting a well thought out schedule. On top of that, the 2015 Nobel Prize in Physics was announced and the topic was neutrino oscillations, which could be explained only using quantum mechanics, the subject of my class. That turned out to be a double whammy and needed some serious thought as to how I had to recover the momentum of the class. Do not worry, I am not going to derive neutrino oscillations or write down one equation, but this is pertinent to the topic I have been pondering for a while – how long does it take to prepare for a class?

In this case, it would usually take me a little time to prepare. After my last class I usually go back to the office and write down a quick review of the important things we had covered and write down a few ideas as to what the next class would entail. If the subject is not fresh, I might ponder the subject for two days, look up some material, or history, and sometimes go to the library. I might do some computations or write up summary notes for future use. Students often stop by with homework questions, which could then suggest topics that need attention in class.

However, on this date, I was beset with a new problem – physics in the news. I watched the live broadcast of the Nobel Prize announcement and knew I had to be prepared to explain the physics in my next class (at 8:00 A.M. the next morning) and relate it to what we had spent the last half of the semester learning in class. After some Internet searches and a trip – on foot – to the library, I then found myself in a two hour meeting deriving the needed results and thinking about the appropriate pedagogical response while listening to the Chancellor and Provost discussing recent changes at the University. By the end of the meeting, with ears perked to university business, I hit upon the right approach and details that were to end up in 45 minutes of the 75 minute class the next day. It would take more time to smooth out the discussion and derivation and, in the end, the class came off as one of the most relevant and coherent classes I had ever prepared and which the students had appreciated. Of course, the few hours of preparation built on years of preparation from undergraduate training, graduate school, and a quarter century of teaching students at all levels.

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This is what it takes to prepare for one class while dealing with other classes, meetings, running committees, and editing this journal. It is no different for countless other instructors, except they are at different stages in their careers with multiple other challenges. So, I return to my main question. How long does it typically take an instructor to prepare for a class?

My teaching philosophy, as espoused twenty years ago, was that “Learning takes place outside of the classroom.” At least that is the hope – that student learning should not be expected to be just from interactions during three fifty minute periods of time each week, but they should be challenged to study and engage with the material and their instructors outside of the classroom. Recent studies have indicated that while it is recommended that students spend 2-3 hours studying for each hour of class time, students today only study on average about one hour for each hour in class.

Faculty also spend time outside of each class in preparation, advising, working with students, and grading papers. However, I do not recall ever having a discussion with other faculty about the typical amount of time that one should prepare for classes or how long it takes to write and exam. It is probably obvious that one tends to spend a lot more time on new preparations, revamping old courses, or introducing new material in a course. But, how much time is needed to prepare courses? Is there a rule of thumb for this?

Then, there is the notion that one eventually realizes that the goal is student learning as opposed to the perfect lecture or class delivery. Even then, one needs to have a loose plan. Consider the learning outcomes and how they might be met over the course of the semester. One needs to plan on delivery method, assignments, readings, and discussions. Leave room for unexpected questions. Depending on the level, depth, and possible new topics dreamed up, my preparation can take anywhere from fifteen minutes to several days of preparation for one class or even a small part of the class. Of course, there is grading and writing exams, which alone can take several days, on top of the preparation before the class. Is this typical?

There is little literature about how long one should spend preparing for classes and exams. However, new instructors might benefit from knowing what others do. The Center for Teaching Excellence at the University of Waterloo lists best practices for course preparation. This includes ideas on preparation, lecture notes, structure, engaging students, delivery, and using visual aids. Although, there is nothing about how long these activities should take to prepare; how preparation time varies with disciplines; or, how much longer it takes to plan a well-thought out set of student activities anticipating the variations that students might introduce to the learning environment.

Lantsoght (2013) discusses the experience of a new faculty member who spent 30 hours on the first lecture! Obviously, this is a bit long. She noted that the American Faculty Association (2012) blog suggests a rule of thumb of 2-4 hours of preparation time for every hour of class time. The higher figure is for new classes. This site includes links to other university guidelines. After some deliberation and reading other thoughts on the subject, Lantsoght (2013) had decided to break down the time for new courses as follows:
How Long Does It Take to Prepare for Class?

- 45 minutes to read the class material
- 45 minutes to distill all important information
- 15 minutes to outline the class hour
- 45 minutes to construct the argument around the "what if" question
- 45 minutes to prepare an example and possible homework
- 45 minutes right before class to make some slides with figures that are complicated to draw on the blackboard, or pictures from practice, and to revise all material.

Felder, R. M., & Brent, R. (2007) discuss the preparation for new courses. They provide a short list of how to prepare for classes including talking to colleagues, minimizing new preps, and limiting number of new preparations. On the other hand, Wankat, P., & Oreovicz, F. (2000) indicate that too much time preparing is overdoing it. They suggest how one can break the preparation time into small chunks amounting to less that a couple of hours preparation per lecture.

Cavanaugh (2005) discuss the amount of time needed for online instruction. He notes that time for online instruction results in heavier workloads, noting that Hartman, Dziuban, and Moskal (2000) had “surveyed 32 online instructors and found that 90% of the instructors believe online courses were more difficult to teach.” Cavanaugh (2005) further describes how the development of courses, answering emails, extra time at home, and other activities results in needing about nine times the amount of time per student as traditional instruction.

Of course, faculty have other activities that add to the workload. Some of this was discussed in a previous Letter to the Editor in this journal. [See Herman (2013).] Ziker (2014) discusses faculty workload and what faculty actually do. Ziker (2014) notes that “23 percent of their time on class preparation, 13 percent on course administration, 10 percent of their time on email, nine percent of their time at workshops/conferences, eight percent of their time in professional conversations, seven percent of their time on professional travel, four percent of their time on manuscript writing, and four percent of their time on what we termed housekeeping” Furthermore, “On average, our faculty participants worked 61 hours per week.” So, it is advantageous to figure out what is a reasonable time for course preparation and there should be more discussion about best practices for faculty course preparation in light of the current atmosphere of adding more assessment and student engagement in our curriculum.

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Matching Student Expectations with Instructors’ Dispositions: 
Insight into Quality of Online Teaching

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Abstract

This paper explores the similarities and differences between student expectations of online instructors and the teaching dispositions of online instructors. Our research goal is to develop insight into factors related to online student success. Although researchers have identified key characteristics of effective teaching in the face-to-face classrooms (e.g., Combs, 1999; Feldman, 1984, 1989), the same cannot be said for the identification and assessment of teaching dispositions in the online classroom. Over a hundred online instructors, who were identified as trained and qualified in online instruction, completed the Virtual Teaching Disposition Scale (VTDS). In addition, over five hundred students responded to a survey asking them to identify instructor characteristics important to their academic success. Results are discussed in terms of student expectations and faculty dispositions, focusing on items relating to faculty expertise, pedagogy, and effective use of technology. Knowledge of these factors may lead to better understanding by instructors of the factors, not related to their specific content, that genuinely influence their students success.

Keywords: Student success, teacher dispositions, Virtual Teaching Disposition Scale (VTDS), online instruction.

In 2013, Allen and Seaman reported that more than 7.1 million students took at least one online course, up approximately 1 million from the previous year. Approximately 32\% of the students were enrolled in institutions of higher education. As the number of students enrolled in online courses continues to grow, many institutions struggle to produce the same student success rates in their online courses as they have in their traditional face-to-face courses (Allen & Seaman, 2013).

The assumption is often made that good Internet connectivity, high quality equipment, and solid content knowledge are all that is needed for effective teaching in the online classrooms. Yet research has shown that teachers must also possess strong professional teaching dispositions to truly be effective online teachers.

Recently, researchers have begun to identify instructor characteristics that may affect student success in online courses and are most meaningful to student academic success. This

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combined knowledge can lead to increased awareness, professional development, and ultimately increased student achievement.

The purpose of the present study was to explore the similarities and differences between student perceptions of online instructors and the teaching dispositions of online instructors. Over 104 instructors responded to a survey focusing on their self-perception of teaching dispositions. In addition, over 500 students from an east coast community college responded to a survey in which they were asked to identify instructor characteristics that were of importance to their academic success in online courses. Results of the study are discussed in terms of instructor dispositions and student expectations, focusing on items relating to frequency of communication and feedback, compassion, empathy, flexibility, and organization.

Knowledge of these factors may lead to better understanding by instructors of the factors, not related to their specific content, that genuinely influence their students success.

**Background**

Four years ago, we wondered about two simple questions: First, what do online students consider outstanding online instruction? Second, does online “outstanding” instruction impact academic success? A comprehensive literature review yielded relatively no helpful answers to either question.

Regarding quality online instruction, most publications were written by online professors or administrators. That literature was not research based, but descriptive suggesting general characteristics educators thought online faculty should manifest. Importantly and significantly, virtually no research evaluated students’ perceptions.

Since there is no satisfactory research definition of “outstanding instruction,” there is no data available regarding impact on online academic success. Quantitative data is available indicating that student academic success was most likely in the following order: traditional classroom, hybrid classes, and online classes.

In an effort to answer the two fundamental questions of online student perceptions and potential impact on student success, Orso and Doolittle (2012) surveyed 27 online sections of community college students asking: “Name three characteristics of an outstanding online teacher and explain why those characteristics are important.” Over 600 students responded offering the following qualitative perceptions of “outstanding online instruction”:

1. Communication/availability: 66 percent
2. Compassion: 58 percent
3. Organization: 58 percent
4. Quality feedback: 45 percent
5. Instructor personal information: 18 percent
6. Other (eg, creative course, technical competence): 9 percent

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In context of this information, Orso and Doolittle (2012) found five instructors by their department chairs as meeting student parameters for “outstanding online instruction”. From these “outstanding instructors” over 2,400 student grades from 137 online sections were evaluated with startling findings. Specifically, academic success rates were 15% higher than traditional classroom and 25% higher than the other online sections.

Because of the inherent problems with qualitative research, the next needed step was quantitative research toward defining “outstanding” online instruction. This paper presents results from that research and adds research on online teacher dispositions.

Teaching Dispositions

Teaching dispositions involve more than effective pedagogy and alignment to content standards. Teaching extends to the behaviors and beliefs of the teacher. These dispositions manifest into actions and behaviors in the classroom affecting not only their performance as an educator, but also the performance of their students. Dispositions are an enactment of a person’s personal traits, values, and behaviors in a consistent manner within particular contexts (Carroll, 2012).

Studies have shown an interconnectedness between teacher dispositions and effective teachers (e.g., Giovannelli, 2010; Good & Brophy, 1994; Leithwood, 1990; Noddings, 1992). One may think of the term dispositions as the process of developing a repertoire and identity of educational practice, what Blythe and associates (1998) term performances of understanding. It is the process in which instructors engage in the intellectual, cultural, ethical, social, and practices necessary to become effective instructors.

Researchers have been able to identify key characteristics of effective teaching in the face-to-face classroom. Regrettably, the same cannot be said for the identification and assessment of the teaching dispositions in the online classroom. Teacher quality has been shown to be an important factor in online education (Cavanaugh, Gillan, Kromrey, Hess, & Blomeyer, 2004). The little data that exists on the influence of online teacher quality revealed several competences needed for effective online instruction, including organization, verbal and nonverbal communication skills, and the ability to use meaningful questioning strategies (e.g., Cyrs, 1997; Easton, 2003; Roblyer & McKenzie, 2000). Bonk, Kirkley, Hara and Dennen (2001) identified four major areas of roles of online instructors including pedagogical, social, managerial, and, technological. One may also seek references on competencies and roles of effective online instruction (Avgerinou & Anderson, 2007; Baran, Correia, & Thompson, 2011; Bawane & Spector, 2009; Bonk, Kirkley, Hara, & Dennen, 2001; Chua & Lam, 2007; Copolla, 2005; Edwards, Perry, & Janzen, 2011; Jefis, Richardson, & Price, 2009; Kouzes & Posner, 2003; Oliver, Osborne, & Brady, 2009; Spangle, Hodne, & Schierling, 2002; Young, 2006; Young, Cantrell, & Shaw, 2001), finding an array of viewpoints.

Several studies have been conducted exploring factors related to student expectations of instructors in the virtual classroom. In one study, students identified seven items as necessary for effective online instruction: adapting to student needs, using meaningful exam-
ples, motivating students to do their best, facilitating the course effectively, delivering a valuable course, communicating effectively, and showing concern for student learning (Young, 2006). The same students also believed that instructors should be flexible and able to adapt to the needs of the students. Given the diversity of the students who enroll in online courses, the expectations gleaned from these studies vary considerably (Stevenson, MacKeogh, & Sander, 2006), but we do know that students create their expectations of online instructors from prior experience with online instructors, communication with peers who have taken online courses, or from their own previous educational experiences (Forrester & Parkinson, 2006).

Orso and Doolittle (2012) found that the ability of an online instructor to meet students’ needs significantly influenced student academic success. Increases in success rates ranged from 5% to 15%. In addition, they found that students enrolled in online courses expected quick response from instructors. In a study designed to identify personality types and instructors’ willingness to embrace technology, Chambers, Hardy, Smith, and Sienty (2003) used the Myers-Briggs Type Indicator and found that intuitive/thinking types were more prone to using technology in teaching while sensory/feeling types were least likely to use technology in the classroom. This research infers that various educator dispositions may also perform differently in the virtual learning environment.

In context of the above research, we researched online instruction from both student and faculty perspectives. Students were asked to evaluate what they considered important characteristics of quality online teaching, while instructors were asked to rate their teaching dispositions. We discuss both their similarities and differences.

**Methods**

**Instruments**

**Student Survey**

A 14-item survey (see Appendix A) was constructed to elicit those items that students perceived as being critically important to their success in an online course. The survey was designed by consultants from two large east coast community colleges. Student opinion forms used at both colleges were revised into one survey instrument designed to assess student perceptions of online instruction, consisting of four categories: expertise, pedagogy, technology, assessment. The survey was screened and approved by the Institutional Review Board (IRB). The survey was measured on a 4-point Likert scale (1 = not important to 4 = critically important).

**Faculty Survey**

The Virtual Teaching Dispositions Scale (VTDS) (see Appendix B) was used in this study to assess the characteristics and competencies of online faculty. The VTDS, developed by Welch, Napoleon, Hill, and Roumell (2014), is a multidimensional instrument to assess the professional teaching dispositions that are associated with effective online instruction. It consists of 25 items which measure four distinct dispositional categories:
social presence, virtual/technological presence, pedagogical presence, and expert/cognitive presence. The survey is measured on a 4-point Likert scale (1 = very untrue of me to 4 = very true of me).

Participants

Students

Over 1,480 students enrolled in online courses at a community college were invited to complete the student survey. A total of 518 completed the survey: 399 female (77.0%), 113 male (21.8%), and 6 preferred not to identify gender (1.2%). The ages of the participants ranged from 18 to over 45 years: 233 aged 18-24 (45.0%), 149 aged 25-34 (28.8), 78 aged 35-45 (15.1%), 54 aged over 45 (10.4%), and 4 preferred not to respond (.8%). The majority of the students identified themselves as Caucasian (n = 347, 67.0%).

Faculty

Faculty who conducted their courses in an online format, either fully or partially, were invited to complete the VTDS. All faculty had been identified by college officials as fully qualified online instructors. Each instructor completed training in online instruction and use of appropriate technology. A total of 103 responded.

Data Analysis and Results

The purpose of this study was to explore the similarities and differences between student and faculty perceptions of quality online teaching. Therefore, both descriptive and inferential statistics were used to examine the data. Given that both instruments had three similar subscales, comparisons were examined between the following: Expertise and Expert/Cognitive Presence; Pedagogy and Pedagogical Presence; Technology and Virtual/Technological Presence.

Student Perceptions

Descriptive statistics were computed on each of the items of the student survey. Results are provided in Appendix A. Table 1 provides the descriptive statistics for the four subscales. The alpha coefficient for the entire instrument (all 14 items) was .673.

<table>
<thead>
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<th>Mean</th>
<th>Standard Deviation</th>
<th>Cronbach’s Alpha</th>
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<td>Expertise</td>
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<td>3.423</td>
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<td>.709</td>
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<tr>
<td>Pedagogy</td>
<td>514</td>
<td>3.969</td>
<td>.125</td>
<td>.632</td>
</tr>
<tr>
<td>Technology</td>
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<td>3.795</td>
<td>.303</td>
<td>.689</td>
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<td>Assessment</td>
<td>514</td>
<td>3.962</td>
<td>.165</td>
<td>.590</td>
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An ANOVA was conducted to determine if significant differences between age groups and gender existed. Within the 18-24 age range, there was a significance difference between genders related to perceptions of pedagogy, $F(1, 229) = 10.265, p = .002$ and technology, $F(1, 229) = 5.698, p = .018$. In addition, within the 25-34 age range, there was a significance difference between genders related to perceptions of pedagogy, $F(1, 146) = 5.505, p = .020$.

**Faculty Perceptions**

The Cronbach’s alpha was computed for each subscale of the VTDS (see Table 2). All four subscales showed good internal consistency and were consistent with the findings from Welch et al. (2014). The alpha coefficient for the entire instrument (all 25 items) was .798.

| Table 2. Faculty Perceptions Subscale Reliabilities. |
|-----------------------------------------------|----------|-----------|----------------|
| Subscale                          | N        | Mean      | Standard Deviation | Cronbach’s Alpha |
| Expert/Cognitive Presence         | 103      | 3.680     | .382              | .746             |
| Pedagogical Presence              | 103      | 3.469     | .452              | .754             |
| Virtual/Technological Presence    | 103      | 3.667     | .340              | .816             |
| Social Presence                   | 103      | 3.778     | .294              | .774             |

Descriptive statistics were computed on each item of the VTDS individually. Results are provided in Appendix B.

**Comparison of Student and Faculty Perceptions**

Classic theoretical model for higher education classrooms suggests that student success is related to instruction that encourages: 1) student-faculty contact; 2) cooperation among students; 3) active learning; 4) prompt feedback; 5) time on task; 6) high expectations; and 7) respect for diverse ways of learning (Chickering & Gamson, 1987). The COI model (Rourke, Anderson, Garrison, & Archer, 2001) defined three core dimensions of importance for learners in online learning environments, including cognitive presence, teacher presence, and social presence. Pelz (2004) found that individuals who become exemplary online educators tended to create carefully designed online courses that promote presence, and more specifically educators who actively work to address cognitive, teacher, and social presence. In addition, work by Welch et al. (2014) identified a factor related to virtual/technological presence, which included virtual appearance, online communication, and technology-mediated skills.

Therefore, for the purpose of this study, comparisons were examined between the following subscales of the student survey and the VTDS: Expertise and Expert/Cognitive Pres-
Faculty Expertise

In the student survey, the subscale Expertise contains items related to the importance of the academic qualifications of the instructor and the recognition of the instructor as being an expert in his or her field. In the VTDS, the Expert/Cognitive Presence subscale contains items related to the instructor’s knowledge in their content area, commitment to academic expertise, and passion for education and is manifested by the instructor through the use of scholarly references and resources, clear and concise writing, and providing clarification and disambiguates content (Welch et al., 2014).

Analysis of the results indicates that students and faculty have very different perceptions regarding the importance of faculty expertise (see Figure 1). Although both groups value the expertise of instructors, faculty place more value on this attribute. This difference, 0.257, 95% CI [-0.368, -0.145], was significant t(615) = 4.530, p < .000.

The disparity between student perceptions of the importance of the expertise of their instructors and the instructors’ content knowledge and reputation in their profession is unclear, thus the issue invites additional investigation. Specifically, it would be important to know the degree to which credentials of the instructor, such as type of degree, type of degree granting institution, and number of publications, impacts online student academic success, motivation, and course satisfaction.

Figure 1: Mean Values for Faculty Expertise.
Pedagogy

The subscale Pedagogy of the student survey contains items related to effective and timely communication by the instructor and overall organization of the course material. Similarly, items in the Pedagogical presence subscale of the VTDS address issues of organization, management, effective communication and feedback, and facilitation of active learning. The disposition of Pedagogical presence has been shown to be manifested by the instructor providing rejoinders and prompts to further discussion, opportunities for student-to-student interaction and peer learning opportunities, and prompt responds and meaningful conversations on threaded discussion boards (Welch et al., 2014).

While both groups identify issues related to pedagogy as important elements of instruction, analysis of the results indicates that students place a far greater importance of these factors (see Figure 2). The difference, 0.500, 95% CI [0.454, 0.546], was significant $t(615) = 21.382, p < .000$.

![Figure 2: Mean Values for Pedagogy.](image)

Technology

The student survey included items related to prompt communication in online formats and effective use of technology in the delivery of online course material. The VTDS subscale, Virtual presence, identified items related to the dispositional need of instructors to possess an innate desire and motivation for continual improvement in their ability to deliver high quality content in the online classroom environment. Virtual presence has less to do with personality and behavior than with competence. It is manifested through the effective use of technology and online formats to enhance learning and provide a meaningful instructional environment (Welch et al., 2014).
There is contrast between student and faculty perceptions of effective use of technology in online instruction (see Figure 4). The difference, 0.128, 95% CI [0.0624, 0.194], was significant $t(615) = 3.832, p < .000$.

![Figure 3: Mean Values for Technology.](image)

**Conclusion**

This paper has considered online teaching perceptions from perspective of both students and faculty. As noted throughout this paper, these two groups have marked similarities and differences in what is quality online teaching.

As the proliferation of online courses continues, a different research perspective is needed. At present, there is a wealth of quantitative data regarding such variables as number of students, numbers of courses, student demographics, types of courses and curriculum. In contrast to this information, additional research is needed dealing with the following:

1. What is “quality online” instruction? Although a lot has been written on this topic, the vast majority has been from the perspective of faculty or administrators. Importantly, those writings are generally not research based but opinion offerings.
2. How does “quality online” instruction impact student academic success? Most data concludes that student success occurs in the following order: tradition classroom (about 75%), hybrid course (about 70%), online course (about 65%). There has been no good research explanation for these differences.
3. Do different online teacher characteristics impact different student demographics? For example, are there more effective teaching styles on the basis of student gender, age, ethnic group?
4. Are there online faculty hiring implications? This question is particularly relevant for higher education. In contrast to K-12 education where training and certification are required, college level teaching usually requires only a graduate degree. Simply having a graduate degree certainly does not guarantee classroom or online teaching competence.

5. How important is meeting online students’ needs of “outstanding online teaching”? Additional research would be helpful toward determining how much (if at all) “outstanding online teaching” influences online students for the following: course satisfaction, motivation, and taking additional online courses.

This study presented quantified data regarding quality online teaching perceptions. Those perceptions were from both a student and faculty perspective. As noted above, much more research is needed to validate quality online instruction and its impact on student academic success.

References


Oliver, K., Osborne, J., & Brady, K. (2009). What are secondary student’s expectations for teachers in virtual school environments? *Distance Education, 30*(1), 23–45. doi: 10.1080/01587910902845923


**Appendix A**

**Student Survey**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>Provide creative and innovative course material (e.g., YouTube, online simulations, and web-based content)</td>
<td>512</td>
<td>3.541</td>
<td>.726</td>
</tr>
<tr>
<td>Expertise</td>
<td>Be recognized as an expert in their content area or discipline</td>
<td>509</td>
<td>3.751</td>
<td>.516</td>
</tr>
<tr>
<td>Expertise</td>
<td>Provide information on his or her qualifications, experience, and academic credentials</td>
<td>509</td>
<td>3.338</td>
<td>.788</td>
</tr>
<tr>
<td>Expertise</td>
<td>Get to know me as an individual</td>
<td>511</td>
<td>3.059</td>
<td>.939</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Clearly communicate course expectations and requirements</td>
<td>514</td>
<td>3.990</td>
<td>.098</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Provide a well-organized course syllabus</td>
<td>513</td>
<td>3.985</td>
<td>.131</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Provide course content easy to follow and navigate</td>
<td>512</td>
<td>3.973</td>
<td>.163</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Provide timely feedback on assignments and exams</td>
<td>512</td>
<td>3.932</td>
<td>.275</td>
</tr>
<tr>
<td>Technology</td>
<td>Be sensitive to student needs (e.g., extend due dates for illness, modify assignments for military deployment)</td>
<td>513</td>
<td>3.688</td>
<td>.569</td>
</tr>
<tr>
<td>Technology</td>
<td>Provide multiple means to establish and maintain contact (e.g., email, office phone, cell phone)</td>
<td>508</td>
<td>3.730</td>
<td>.562</td>
</tr>
<tr>
<td>Technology</td>
<td>Be skilled and proficient at using technology</td>
<td>510</td>
<td>3.833</td>
<td>.399</td>
</tr>
<tr>
<td>Technology</td>
<td>Promptly respond to questions, emails, phone calls, and other contacts</td>
<td>512</td>
<td>3.926</td>
<td>.262</td>
</tr>
<tr>
<td>Assessment</td>
<td>Provide clear and meaningful feedback on assignments and exams</td>
<td>511</td>
<td>3.951</td>
<td>.233</td>
</tr>
<tr>
<td>Assessment</td>
<td>Grade assignments and exams fairly and consistently</td>
<td>512</td>
<td>3.975</td>
<td>.157</td>
</tr>
</tbody>
</table>
Appendix B
Virtual Teaching Dispositions Scale (VTDS)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert/Cognitive Presence</td>
<td>I demonstrate commitment to academic expertise.</td>
<td>103</td>
<td>3.86</td>
<td>.38</td>
</tr>
<tr>
<td>Expert/Cognitive Presence</td>
<td>I have a passion for education.</td>
<td>101</td>
<td>3.90</td>
<td>.36</td>
</tr>
<tr>
<td>Expert/Cognitive Presence</td>
<td>I make content meaningful for the learner.</td>
<td>102</td>
<td>3.75</td>
<td>.46</td>
</tr>
<tr>
<td>Expert/Cognitive Presence</td>
<td>I anchor learning strategies in the context of my subject matter.</td>
<td>102</td>
<td>3.61</td>
<td>.58</td>
</tr>
<tr>
<td>Expert/Cognitive Presence</td>
<td>I adapt learning strategies within the context of my subject matter.</td>
<td>103</td>
<td>3.62</td>
<td>.52</td>
</tr>
<tr>
<td>Expert/Cognitive Presence</td>
<td>I am very knowledgeable in my content area.</td>
<td>103</td>
<td>3.90</td>
<td>.33</td>
</tr>
<tr>
<td>Pedagogical Presence</td>
<td>I respond to student inquiries in a timely manner.</td>
<td>103</td>
<td>3.87</td>
<td>.37</td>
</tr>
<tr>
<td>Pedagogical Presence</td>
<td>I return work to students promptly.</td>
<td>103</td>
<td>3.65</td>
<td>.56</td>
</tr>
<tr>
<td>Pedagogical Presence</td>
<td>I create a schedule and stick to it.</td>
<td>103</td>
<td>3.53</td>
<td>.64</td>
</tr>
<tr>
<td>Pedagogical Presence</td>
<td>I am organized.</td>
<td>103</td>
<td>3.59</td>
<td>.62</td>
</tr>
<tr>
<td>Pedagogical Presence</td>
<td>I communicate clearly and effectively in writing.</td>
<td>103</td>
<td>3.77</td>
<td>.46</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I adapt well in online delivery formats.</td>
<td>103</td>
<td>3.51</td>
<td>.70</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I maintain genuine and meaningful contact in online formats.</td>
<td>103</td>
<td>3.51</td>
<td>.61</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I project interpersonal skills in the</td>
<td>103</td>
<td>3.48</td>
<td>.67</td>
</tr>
<tr>
<td>Presence</td>
<td>online environment.</td>
<td>103</td>
<td>3.78</td>
<td>.47</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I strive to continually improve performance in the online classroom.</td>
<td>103</td>
<td>3.45</td>
<td>.70</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I maintain genuine and meaningful contact in online formats.</td>
<td>103</td>
<td>3.37</td>
<td>.76</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I am intrinsically motivated to master new information technology.</td>
<td>103</td>
<td>3.30</td>
<td>.65</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I utilize new technologies to enhance learning.</td>
<td>103</td>
<td>3.35</td>
<td>.69</td>
</tr>
<tr>
<td>Virtual/Technological Presence</td>
<td>I communicate comfortably almost entirely through writing.</td>
<td>102</td>
<td>3.73</td>
<td>.47</td>
</tr>
<tr>
<td>Social Presence</td>
<td>I am empathetic to the needs of my students.</td>
<td>103</td>
<td>3.83</td>
<td>.48</td>
</tr>
<tr>
<td>Social Presence</td>
<td>I relate with students as people.</td>
<td>103</td>
<td>3.79</td>
<td>.44</td>
</tr>
<tr>
<td>Social Presence</td>
<td>I am tactful with students in emotionally stressful situations.</td>
<td>103</td>
<td>3.29</td>
<td>.62</td>
</tr>
<tr>
<td>Social Presence</td>
<td>I am flexible in dealing with students' needs (due dates, absences, etc.).</td>
<td>103</td>
<td>3.89</td>
<td>.37</td>
</tr>
<tr>
<td>Social Presence</td>
<td>I try to establish a welcoming learning environment.</td>
<td>103</td>
<td>3.48</td>
<td>.58</td>
</tr>
</tbody>
</table>
The T(ea) Test: 
Scripted Stories Increase Statistical Method Selection Skills

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Abstract

To teach statistics, teachers must attempt to overcome pedagogical obstacles, such as dread, anxiety, and boredom. There are many options available to teachers that facilitate a pedagogically conducive environment in the classroom. The current study examined the effectiveness of incorporating scripted stories and humor into statistical method selection skills. Over two semesters, students were taught various concepts either through traditional lecture, humor, or through the use of scripted fictional stories. The overall results indicate selection skills were higher for statistical concepts that were taught using stories. This suggests that statistics instructors should consider using scripted stories to improve students’ ability to select the appropriate statistical technique for a given situation.

Keywords: Statistical method selection, humor, stories, teaching.

Alice was a young, curious, and incredibly bored college student. There is only so much one could do in her small town and she had already been to the local hangout four times this week. So, one day she decided to have a Tea Party. She put on her finest dress and invited the Mad Hatter and the March Hare over for tea. Later that afternoon, her friends showed up for her party and upon pouring their first glass of iced tea, she asked each of them “How many lumps of sugar would you like in your tea?”

“Sugar? In my tea?” screeched the March Hare. “I am from the North, and we do not put sugar in our iced tea. That is disgusting.”

“I disagree” charged the Mad Hatter. “I am from the great state of Alabama, and no self-respecting Southerner would drink it any other way. I will take 12 sugars.”

Alice looked at both of her friends, and as they growled like feral dogs at one another, she realized how different they were... BUT, was it a statistically significant difference?

Alice decided that she wanted to find out if there was a difference between Northerners and Southerners in their preference for tea sweetness. So she traveled to New York and asked 20 people how many lumps of sugar they like in their tea, and she traveled to Ala-

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bama and asked 20 people how many lumps of sugar they like in their tea. After visually examining her data, it appeared that there was a difference between Southerners and Northerners. But, how could she determine whether the difference between the two groups was statistically significant? To answer this question, Alice must use a T(ea) test.

Students often begin a statistics course under the impression that statistics is just another arithmetic class (Bond, Perkins, & Ramirez, 2012). Also, it is no secret that students have negative attitudes about statistics courses. Many past studies have shown that students dread taking statistics courses, procrastinate enrolling in them, and find them uninteresting (Conners, McCown, & Roskos-Ewoldsen, 1998; Onwuegbuzie, 2004). In fact, as much as 70–80% of students experience statistics anxiety (Onwuegbuzie & Wilson, 2003). However, it is important to keep in mind that it is not students’ attitudes at the beginning of the semester that best predict outcomes. Instead, it is the student’s attitudes at the time of the assessment that are the best predictors of performance (Dempster & McCorry, 2009). Thus, to teach statistics successfully, teachers must help students overcome dread, anxiety, boredom, and any other negative emotions that students might be experiencing at the time of learning and assessment.

The negative emotions, such as boredom, associated with statistics are counterproductive to learning and are negatively correlated with success in coursework (Onwuegbuzie & Wilson, 2003; Tremblay, Gardner, & Heipel, 2000). Most modern day teachers will agree that attempting to simply transfer knowledge from one’s brain to the students’ brains is simply not enough to maintain students’ interest, attention, while also simultaneously increasing learning (McGlynn, 2005; Ziv, 1998). Some students need, desire, or even demand that their classrooms be entertaining, and feel that it is up to teachers to spark students’ interest in the class or material (Kraus & Sears, 2008), and arguably most teachers would agree that some of these expectations aid in student learning. Inevitably, instructors who fulfill this need are rated higher on their end-of-semester evaluations than those who are unable to meet students’ expectations for entertainment (Fortson & Brown, 1998).

Instructors in virtually all fields have multiple options when it comes to creating stimulating classrooms that support learning. Many instructors engage students with techniques such as classroom activities, demonstrations, debates, films, entertaining slide presentations (Wender & Muehlbeck, 2003), and experiments, among others. In statistics classrooms specifically, teachers can use hand-calculation exercises (Ricketts & Berry, 1994), demonstrations (Humphrey, 2011), experiential/service learning, in-class activities, and even field trips (Lesser, 2012). However, for some, these options may be too time-consuming, expensive, or merely infeasible. A brief and ‘cheap’ alternative suggested by some teachers is to discuss statistical content in humorous, silly, and ironic ways (Bruner, 1996; Hackathorn, 2008).

Research suggests that humor in the classroom, whether scripted or spontaneous, reduces students’ anxiety, improves perceptions of the teacher, helps students to maintain attention, increases students’ long-term memory, and improves understanding (Fortson & Brown, 1998; Hackathorn, Garczynski, Blankmeyer, Tennial, & Solomon, 2011; Schacht
& Stewart, 1990; Schmitz, 2002; Ziv 1998). For example, Ziv (1998) found that humor facilitated creativity by reducing students' anxiety levels. In another example, Hackathorn and colleagues (2011) found that using humor actually improved student’s overall exam performance, but scores were especially increased on knowledge (i.e., memorization) and comprehension (i.e., understanding) level test items.

As it relates specifically to statistics, there are a few notable studies that have shown that humor is helpful (see Neumann, Hood, & Neumann, 2009 for a brief review). For example, Schacht and Stewart (1990) found that content taught in the form of cartoons/clip art reduced math anxiety. Additionally, Amoo, Friedman and Friedman (2000) found that embedding real data in entertaining or absurd situations, such as paranormal encounters, increased student engagement. Finally, Friedman, Friedman, and Amoo (2012) found that humor, in terms of poems, raps, and jokes, decreased boredom, increased engagement, and ultimately increased learning.

But, some instructors are uncomfortable using humor in the classroom; some may use it inappropriately, or some may feel too inexperienced as an instructor to purposefully incorporate humor into one’s verbal repertoire (Fortson & Brown, 1998). However, one does not have to be an experienced comedian to effectively incorporate boredom-busting creativity into one’s teaching strategies. One outlet that teachers can use is stories, whether fictional, scripted, or personal. Stories, which are narrative-based and conceptually organized to convey information (Stein, 1982), can take many forms, and have been shown to be very pedagogically useful in the classroom (Thorne, 1999). For example, a political science instructor might share the story of a personal experience campaigning for a local politician to highlight the importance of grassroots efforts. Or a biologist might explain the evolution of an organism in a narrative, story-like manner, to illustrate the organism’s history in an entertaining way.

Although the literature regarding stories is relatively scarce, one notable exception has shown the effectiveness of using stories in the classroom. Kraus (2010) found that asking students to navigate an imaginary dungeon containing monsters helped students learn central tendency concepts. Although this is not necessarily a narrated story (Downs, Javidi, & Nussbaum, 1988), this particular example allowed students to use their imaginations in creative ways. The use of narratives and stories are effective pedagogical methods not only for various subjects, but also for students in all levels of education ranging from kindergarten to college (Casey, Erkut, Ceder, & Young, 2008; Herreid, 2007; Yang & Wu, 2012).

The current study examined the effectiveness of humor and scripted fictional stories to improve students’ scores on specific topics – that is, statistical selection skills, (i.e., one’s ability to choose the appropriate statistical analysis for a given research question and set of data; Ware & Chastain, 1991). Although students see statistics as an arithmetic, or algebraic, based math class, statistics courses are more about logic, critical thinking, and verbal reasoning (VanderStoep & Shaughnessy, 1997; Zerbolio, 1999). Acquiring statistical selection skills are difficult for most students (Hackathorn, Thornton, Tennial, & Bolton, 2009; Ware & Chastain, 1991). Choosing the appropriate statistical options re-
lies on a set of predetermined assumptions about the participants, the measures, the variables, the type of methodology used, and the research question itself. This is not to say that learning how to calculate statistics (e.g., standard deviation) is unimportant. On the contrary, it is just as important to know how to calculate a standard deviation as it is to know what that resulting number means (Ware & Chastain, 1991). If one understands the numbers and the point of the underlying statistical computations, then, arguably, statistical selection skills would be improved.

Over the course of two semesters, students were taught various concepts either through traditional lectures (e.g., computations, explanations, demonstrations, and in-class activities), scripted humor (e.g., jokes, humorous examples, or cartoons), or through the use of scripted stories (e.g., Alice and the T(ea) Test). A final comprehensive exam contained a section of multiple choice questions specific to statistical selection. We hypothesized that exam scores for concepts taught using either humorous examples or scripted stories would be higher than concepts taught using traditional lecture methods. However, it was unclear which one, humor or stories would be the most effective.

**Method**

**Participants**

Participants (N = 68) consisted of students over two semesters that completed a junior level introduction to statistics course in a mid-sized public university in the southern United States. There were 32 students in the fall semester course and 36 students in the spring semester course of the same academic year. Student participants’ ages ranged from 18 years to 48 years of age (M = 24.67, SD = 8.20, Med = 21). The demographic composition of the sample consisted of predominantly females (69%), Caucasians (87%), junior classmen (66%), and psychology majors (51%).

**Materials and Procedure**

Throughout each semester, students were taught material ranging from data presentation to simple linear regressions. Concepts were taught using a variety of methods, categorized for the purposes of this study as traditional, humorous, or stories. Content taught through the use of traditional methods included lecture, demonstrations, in-class activities, and real-world examples. For example, in an attempt to teach variance related concepts, a real-world example was used by having students calculate and discuss how much money would be needed to eat at a local restaurant. Traditional lecture methods covered content such as descriptive statistics, t-test of dependence, chi-square test of independence, spearman’s rho, repeated measures ANOVA, and simple linear regression.

Content taught with the use of humor included jokes, funny examples, or relevant static cartoon clips in addition to lecture. An example of humorous content was to use ridiculous examples for correlations, such as a negative relationship between the times spent playing a popular video game and success in dating. Concepts taught with humor included Pearson’s correlations, one-way ANOVAs, and Factorial ANOVAs. Content taught
through the use of scripted stories encompassed fictional stories, such as Alice and the T(ea) Test presented at the beginning of this article. Other stories presented included a murder mystery, a romantic triangle, and a king’s attempt to find the richest prince in the land. The scripted stories covered z-scores, t-test of independence, and the chi-square goodness of fit.

The final exam took place on the last day of each semester. Students were told in advance that they would receive a comprehensive final exam, and also received an exam review in the class day prior to the final exam. The first section of the final exam consisted of a lengthy set of comprehensive multiple choice questions. Each question consisted of a small vignette and a corresponding research question. Students were asked to identify which analysis would be the most appropriate. For example, here is a question from the final exam: “Jake scored in the top 10% of his statistics class. However, his friend Sally also scored in the top 10% of her statistics class. But, Jake wants to know who actually scored better. What statistical calculation could Jake do to find out?” To answer the example question, students were required to choose one of four multiple choice options. Final scores in the analysis were created by the proportion of correct answers in each of the respective conditions (i.e., traditional, humor, and stories). Answers were either coded as completely correct or completely wrong; no partial credit was recorded.

**Results**

We hypothesized that exam scores for concepts taught using humorous examples or scripted stories would be higher than concepts taught using traditional lecture methods. Preliminary analyses indicated that there were no differences between the two courses (that is, between fall semester and spring semester) in scores on the final exam for any of the conditions (humor \( t(66) = .64, p = .526 \); stories \( t(66) = .44, p = .661 \); traditional \( t(66) = .18, p = .861 \)). Thus, although this study was conducted using two classes, data from both semesters were joined together for the primary test of the hypothesis as a means of increasing statistical power.

As the results of the dependent variable were in regards to proportion of items correct, the appropriate arcsine transformation was conducted for the data. The results of a one-way repeated measures ANOVA indicated a significant difference between the lecture types, \( F(2, 134) = 7.82, p < .001 \). Planned pairwise comparisons indicated performance on test items that were taught through the use of scripted stories were significantly higher than concepts taught through the use of humor (\( p < .012 \)) and traditional methods (\( p < .001 \)). However, performance on concepts taught with the use of humor was not significantly higher than performance on concepts taught through traditional methods (\( p > .05 \)). For the sake of simplicity in interpreting the results, Figure 1 illustrates the differences between groups using the original (untransformed) data values.

Furthermore, a post-hoc complex comparison (combining humor and traditional lecture conditions) using a t-test of dependence indicated that students scored higher on concepts
taught with scripted stories than concepts taught without stories, \( t(67) = 4.03, p < .001, d = .49 \).

**Discussion**

The current study examined the effectiveness of incorporating scripted stories (e.g., Alice and the T(ea) Test) to improve students’ statistical selection skills. In two courses over two semesters, results from the data combined from both semesters indicated the same pattern. That is, selection skills were higher for statistical concepts that were taught using scripted stories than concepts taught traditionally and higher than concepts taught through the use of humor (although there was no difference between concepts taught traditionally and those taught with humor).

Statistical based scripted stories have the ability to lead students through an entire research project in a very short amount of time. For example, in the case of Alice’s tea test, the students are presented with the research question, the data collection procedure, the data, and the selection of an appropriate test. Additionally, Alice’s actual data as well as the hand-calculation of the statistical analysis are shown to students (but were omitted in this paper for simplicity). As the PowerPoint slides show cartoon pictures of Alice, the statistical test is presented under the pretense of fiction. Thus, the scripted stories may have improved learning because students were engaged and interested in the material and perhaps simultaneously distracted by it as well, thus reducing boredom or anxiety. However, these constructs were not directly assessed in the current study. There is some anecdotal evidence that students enjoyed the stories: in the instructor’s evaluations, when
asked what aspects of the teaching or content of this course do you feel were especially good, students wrote things such as: “I liked all of the ‘story time’ examples”, “The short stories made stats enjoyable”, and “liked (sic) how the stories were used to develop the bigger picture”. However, these are merely anecdotal, and future studies may want to include a direct assessment of student interest.

What is interesting and unexpected is the lack of support for improved learning through the use of humorous lecture content. A multitude of past studies have shown that humor in the classroom is beneficial, and this study does not dispute that. Hackathorn and colleagues (2011) found that humor helped students on knowledge and comprehension level items, but was not especially helpful on application level items. Statistical selection is arguably at the application level of Bloom’s taxonomy. Thus, humorous static cartoons or jokes may help a student remember a given statistical test, or even understand its purpose, but may not be helpful in choosing the appropriate test to go with a set of data. For example, a static cartoon strip may not demonstrate when to choose a Pearson’s r correlation test, although it may give some hidden insight into the nature of the test itself. Thus, extra steps must be taken to ensure that the humor is matched to the skill. For example, it should be noted that there is a semblance of fun and humor in each of the scripted stories used for this study. That is, the stories use colorful clip art, propose interesting plot twists, make relevant references to local venues, and are not told in monotone voice (i.e., playful voices, ‘terrible’ accents, and slang are used). The students often remark that the stories are entertaining; they often laugh during the stories; and even sometimes clap afterwards. Thus, the stories may be the answer to the humor dilemma mentioned previously because students may remember the story and its entire plot because it was fun and humorous, but it was helpful because it was matched specifically to the goal of statistical selection. In sum, future studies may want to manipulate the cognitive levels of the humor presented, to see specifically what types of humor aid the student in what situations and for what types of statistical problems.

As in any study that has ecological validity, there are some inherent limitations. Specifically, this study is limited by the teacher’s repertoire. That is, the concepts were not randomly assigned to their conditions. Although great care was taken to ensure that the level of difficulty of concepts was dispersed evenly across conditions (i.e., easier concepts did not appear in one group while harder concepts were all in another group), the instructor had pre-created stories and materials that put the topics in its corresponding condition. Thus, one could argue that perhaps this positively affected the results. However, due to the wide range of concepts included, we find this unlikely. Arguably, the easiest of all the concepts to learn in this course (i.e., measures of central tendency), were in the traditional condition. Additionally, the humor condition contained correlations, which is another concept students tend to find easy to understand. Taking this into consideration, we argue that our findings are likely subdued. That is, students should have scored higher in the ‘control’ conditions than the experimental, due to the ease of topics contained in those conditions. The notion that we found positive effects in the story condition, suggests that effects may be even larger than is reported here. In the future, it may be beneficial to conduct a true experiment in which one class received stories, and the other class
did not. This may help to better determine the effectiveness of the stories across the various levels of concept difficulty.

While this study focused specifically on the statistics classroom, instructors in any field can utilize stories to increase their students’ attention and learning. It may seem daunting to create stories for use in the classroom, but with a good understanding of the material and some time, it is a task any instructor can successfully tackle. In fact, many instructors probably already use narratives and stories in their teaching, and could simply develop those narratives into scripted, structured stories. Students find the narrative structure of a story helpful when trying to recall important information because that information is more memorable than information shared via traditional lectures (Amoo et al., 2000) – benefits that are not constrained to just a statistics class. By taking the basic information that needs to be conveyed to students and structuring it into a narrative form, instructors will be aiding their students by decreasing boredom and increasing engagement (Amoo, et al., 2000; Friedman et al., 2012).

The current study provides some helpful and fun information for statistics teachers. Using fictional scripted stories, such as Alice and the T(ea) Test, students are led down the ‘rabbit-hole’ of statistical selection by introducing the nature of the data, the research question, and how to discern the appropriate analysis. Because learning statistics is made difficult by student’s negative attitudes and trepidation, it is important for teachers to have an arsenal of tools ready to minimize these tendencies. Through the use of scripted stories, it would appear that students are entertained while they simultaneously learn the material. In conjunction with the use of humor, perhaps these stories are effective because they distract students from their statistical boredom and anxiety.

References


Collaborative Professional Development in Higher Education: Developing Knowledge of Technology Enhanced Teaching

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Abstract

This paper describes a professional development initiative for teacher educators, called the Digital Pedagogies Collaboration, in which the goal was to build faculty knowledge about technology enhanced teaching (TPACK knowledge), develop a collaborative learning and research community of faculty members around technology enhanced teaching, and provide opportunities for faculty to serve as future workshop facilitators and mentors for other faculty and students. Using a design-based research approach, data sources included workshop evaluation surveys, photographs of workshops in progress, researcher field notes, and narrative case reports constructed by faculty members actively involved in the collaborative research. Findings indicated that the Digital Pedagogies Collaboration was effective because it was: 1) based on faculty members’ expressed instructional needs, 2) used a TPACK-based professional learning workshop model that translated TPACK principles into practical classroom application, and 3) uniquely included a research collaboration that provided self-study reflection on participants’ changing teaching practices.

Keywords: Undergraduate education, higher education, pedagogy, experiential learning, teaching practices.

With the ubiquity of mobile and digital devices in our daily lives, learning and how we learn has changed (Borko, Whitcomb, & Liston, 2009). Bachmair, Cook, and Kress (2010) argue that “in order to avoid a potential disconnection between the ways young people operate in their daily lives and the ways educational institutions interact with them” (p. 3), all sectors of the educational system must keep pace with these changes in how students learn. However, the focus of professional development (PD) for educators over the past two decades has been on how to improve/enhance inservice and preservice teachers’ integration of technology to impact student learning in K-12 schools (Angeli & Valanides, 2009; Harris, Mishra, & Koehler, 2009; Jaipal & Figg, 2010; Niess, 2005). The few initiatives (e.g., Bai & Lehman, 2003; Lan, 2001) that have focused on the instructional practices of higher education faculty indicate that technology professional de-

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Collaborative Professional Development in Higher Education

Development for higher education faculty is different; it must be purposeful, perceived as beneficial to their professional practice and research goals, and address course learning goals. This gap in the research is significant as teacher educators are tasked with the teaching of a new generation of teachers; yet they do not have the knowledge and skills to model digital learning in their own pedagogy (Ertmer, 2005).

Research shows that the adoption of technology within instruction by higher education faculty is not widespread (Moser, 2007; Johnson et al., 2013). Even though faculty in higher education are subject matter experts in the content they teach, they are often comfortable with the status quo (established course outlines and instructional practices) and resist change (Otero et al., 2005; Johnson et al., 2013). Some barriers to faculty adoption of technology-enhanced teaching have been identified as time to learn the technology, technical competence with the tools, belief that technology may not be critical for learning, reliability of the technology, and insufficient institutional support (Butler & Sellborn, 2002; Johnson et al., 2013; Otero et al., 2005). Additionally, university policies that value research above teaching for promotion and tenure also contribute to faculty resistance to innovate and experiment with technology-enhanced instruction and contribute to faculty perceptions (of engaging in innovative teaching practices) as being beyond their role as academic researchers (Johnson et al., 2013). In a study exploring the factors affecting technology adoption in higher education, Keengwe, Kidd, and Kyei-Blankson (2009) reported that faculty were “more likely to use technology if they had departmental and peer support, cross collaboration with other faculty using technology, and if there was a rewards program in place to attract and motivate them” (p. 25).

At our university, we are addressing this gap through a collaborative PD partnership between university faculty and a local school board technology team, fostering the exchange of knowledge and expertise in teaching with technology, and providing faculty members with professional learning opportunities to advance personal technology teaching skills. The impetus to initiate this PD program was brought about by our faculty acknowledging a need for enhancing their own teaching practice with technology. Our faculty identified some of the difficulties of integrating technology into their personal instructional practices as: 1) the technologies are not always available; 2) there are not enough PD initiatives; 3) and personally, they lacked the confidence to use it successfully in instruction. Issues such as these have led to a lack of technology enhanced teaching in postsecondary classroom instruction, often leading to student dissatisfaction with their educational experiences in higher education (Matrix, 2012).

The Digital Pedagogies Collaboration consisted of a small group of higher education faculty from the same department who were interested in learning about how to teach with technology. A series of workshops was offered at different times in the year that were open to the faculty at large. These workshops were attended by small groups of faculty and provided them with concrete applications of how technology could be effectively applied in authentic contexts in higher education instruction. However, it was acknowledged that these characteristics of effective PD for teachers are not sufficient to create buy-in by higher education faculty to participate in technology professional development.
Therefore, the goals of this initiative, called the Digital Pedagogies Collaboration, were threefold:

- to build faculty knowledge about technology enhanced teaching (TPACK);
- to develop a collaborative learning and research community of faculty members around technology enhanced teaching;
- to provide opportunities for faculty to serve as future workshop facilitators and mentors for other faculty and students.

Theoretical Framework

The design of the PD initiative, Digital Pedagogies Collaboration, was informed by the literature on teacher PD and technology enhanced teaching. The literature suggests that PD opportunities are effective when they involve collective participation of teachers from the same school or a group of schools, has a high probability of affecting student learning, and is facilitated through study groups, mentoring and coaching (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Hargreaves, 2003; Hung & Yeh, 2013; Ingvarson, Meiers, & Beavis, 2005; Figg & Jaipal, 2013; Joyce & Showers, 2002). Borko, Jacobs, and Koellner (2010) additionally suggest that effective PD for teachers is situated in practice and addresses problems of practice; includes modeling of the instructional practices to be learned; and involves active teacher learning through collaboration. Therefore, these characteristics were incorporated into the design of the initiative.

Additionally, the Digital Pedagogies Collaboration initiative was designed to focus the collaborative learning on technology enhanced teaching, especially the building of Technological Pedagogical and Content Knowledge (TPACK) in faculty members. Although teacher knowledge involves understanding the complex interactions between content, pedagogy, and technology, our focus in the Digital Pedagogies Collaboration were three components of the TPACK model (Mishra & Koehler, 2006) namely:

- TCK (Technological Content Knowledge), or knowledge about content-appropriate technologies and how “technology and content influence and constrain one another” (Koehler & Mishra, 2008, p. 16);
- TPCK (Technological Pedagogical Content Knowledge), or knowledge about how teachers think about representing content using technology in instructional practice, (Jaipal & Figg, 2010);
- TPK (Technological Pedagogical Knowledge), or knowledge of practical teaching competencies (i.e., classroom management, differentiated support, and assessment) (Jaipal & Figg, 2010).

Specific to this study, was an adapted approach to learning about technology that is reflected in a model proposed for the design of content-centric PD workshops: the TPACK-in-Practice Professional Learning Design Model (TPLDM) (Figg & Jaipal Jamani, 2013). The TPLDM model consists of four distinct phases that reinforce a content-centric approach to teaching with technology.
Figure 1: The TPLDM-Based Workshop Model and development of TPACK knowledge.

Figure 1 shows how teacher knowledge about teaching with technology (referred to comprehensively as TPACK knowledge) is promoted by the TPLDM workshop phases. Phase 1 begins with the instructor modelling an authentic technology-enhanced content activity in a higher education course context, followed in phase 2 by a discussion of the pedagogical constraints of the technology-enhanced activity in actual practice. Thereafter, the instructor demonstrates the necessary technical skills required for tool use to create or implement the activity (phase 3). The final phase of the workshop involves participants applying technical and pedagogical skills to an authentic activity/practice task they can apply in their own courses.

The purpose of this research study was to gain insights into faculty members’ experiences and the knowledge gained about technology-enhanced teaching as they participated in the Digital Pedagogies Collaborative. Accordingly, the following questions guided the research:

- What were faculty members’ evaluations of the design of the professional development workshops?
- How did faculty members’ teaching practice change through participation in the Digital Pedagogies Collaboration?

Methods

The research approach used in this study was design-based research. Design-based research is described by Anderson and Shattuck (2012) as a “practical research methodology that could effectively bridge the chasm between research and practice in formal education” (p. 16). Anderson and Shattuck further characterize the approach as:
Design-based research was an appropriate method for this investigation because participants were situated in the authentic educational context of learning how to enhance their own teaching practice with technology, through participation in a series of technology workshops and collaborative research opportunities.

The initiative began with a cadre of 13 faculty members who were interested in collaboratively learning about, and researching, how to improve their teaching practices with digital technologies. The two lead faculty researchers administered an informal needs assessment to this group indicating the types of technologies of interest to them. Concurrently, a partnership was developed with the local school board where school board technology experts were recruited to act as workshop facilitators. These facilitators were initially provided with training by the researchers on how to conduct workshops using the TPACK-based workshop model (Figg & Jaipal, 2012). The researchers wanted to emphasize the need for workshops that focus on pedagogy and content-teaching, rather than the teaching of technical skills (Jaipal-Jamani & Figg, 2015).

Based on the needs of the faculty, a first series of TPACK-based workshops were presented in December 2012, and called, “Lagniappe Workshops” because they offered a variety of technology enhanced teaching activities in short focused workshops. The members of the collaborative, as well as other faculty, instructors, and graduate students, attended. These workshops featured a variety of technologies, including teaching with SMARTBoards, digital tools such as Prezi, Pinterest, Google Drive documents, and mobile devices such as iPads and document cameras. The first workshop series was followed by a faculty retreat in January 2013 where faculty members of the technology research collaborative provided feedback on the workshops, and learned how to present a TPACK-based workshop so that they, too, could become future facilitators. Participants also discussed ways to research their professional learning experiences, such as keeping journals and writing a narrative. A second series of workshops, similar to the first, was conducted in August 2013. The third iteration of workshops occurred in the summer of 2014 where some faculty members of the technology research collaborative served as facilitators (findings from this phase are to be published in a subsequent paper). In this way, the research approach involved multiple iterations in a cycle to improve practice and faculty confidence in how to teach with technology. This current paper reports on participants’ perceptions of the PD workshops they attended during the first year of the project and how it influenced their teaching practice.

The main data sources were workshop evaluation surveys and narrative case reports. Findings related to the effectiveness of the workshops were triangulated using additional data such as photographs of workshops and observational field notes made by the lead
researchers at workshops. Observational field notes and photographs were coded for characteristics of content (type of TPACK knowledge) and structure (phases of workshop) consistent with the TPACK-based workshop model. The evaluation survey included questions that elicited participants’ satisfaction with the structure, pacing, relevance, and content of the 11 workshops respectively, using a Likert scale of 1 (very dissatisfied) to 4 (very satisfied). This evaluation was used to obtain descriptive quantitative feedback and was not validated statistically. Feedback on the scheduling and recruiting process for workshops was also obtained. The practical impact of this design-based intervention on faculty members’ instructional practices and perspectives towards technology enhanced teaching was determined by analyzing the three narrative case reports (i.e., Tiffany, Ruth, Katia) based on the following four questions:

1) How did you feel about teaching with technology prior to these workshops?
2) How did you use what you learned from the workshops in your own instructional practices?
3) How has your own personal knowledge and confidence in teaching with technology changed? How would you describe the difference in your instructional practices now compared to those before the workshops?
4) Describe what you would be confident to teach to other faculty members in small groups or workshop sessions.

The narrative case reports were also interpreted by the lead researchers to highlight evidence of change in instructional practices and perspectives towards technology-enhanced teaching. All participating authors then reviewed the interpretations of data, providing further triangulation through member checking (Creswell, 2014).

It should be noted that design limitations of the study were that data were self-reported and the number of participants was small. At the time data were collected, faculty were at different stages of the design, implementation and reflection on technology-enhanced teaching practice which resulted in a small number of faculty being ready to share their reflections in narrative form. Hence, the findings cannot be generalised to the larger population; however, findings do provide insights that may inform the implementation of faculty professional development in similar university contexts

Results

The results are presented in relation to the two research questions which investigated faculty members’ evaluations of the design of the PD workshops and explored how faculty members’ technology-enhanced teaching practices changed through participation in the collaborative PD initiative.

Design of the professional development workshops

Feedback on the effectiveness of design of the PD initiative was received through the workshops evaluation surveys and field notes. The December 2012 workshop attendees \( (n = 48) \) rated each workshop in terms of their satisfaction with structure, pacing, releva-
vance, and content of the workshop, as well as some feedback on the scheduling and recruiting process for workshops. The overall rating of workshop participants was 3.8 on a Likert scale of 1 (very dissatisfied) to 4 (very satisfied) for all 11 of the workshops. Attendees indicated that the structure of the workshop, using the TPACK-based Professional Learning Design Model (TPLDM) (Figg & Jaipal Jamani, 2013; Jaipal-Jamani & Figg, 2015), in which a technology enhanced learning activity was modeled, provided needed context for adapting the featured technology to their own instructional practice. As well, attendees found the concrete, hands-on application phase of the workshop provided strategies and skills for using the technology authentically. Suggested improvements included scheduling individual workshops over a period of time rather than scheduling five workshops concurrently—they were unable to attend workshops held at the same time; conducting workshops for longer periods of time—they suggested that 1 hour and 15 minutes was not sufficient time to complete the hands-on application phase of the workshops.

As a result of this feedback, a second series of five workshops were scheduled so that only one workshop was held at a time over a period of two days. As well, the length of the workshops was extended to 1 hour and 30 minutes.

Changes in Technology-enhanced Teaching Practice

Vignettes from three narrative case reports are presented to illustrate the impact of the PD initiative on their technology-enhanced teaching practice.

Tiffany’s Experience

Tiffany is an Associate Professor, teaching in the field of educational psychology, and she conducts research in the areas of inclusive education and technology use in language and literacy contexts.

My personal knowledge is modest, but growing; my confidence in teaching with technology has changed, but there is a long way to go on the continuum. On a positive note, I would have never thought that I would be even considering using such instructional suggestions until taking these [PD] sessions. It was not so much my lack of ideas for the pedagogical possibilities as my lack of understanding of the technological-pedagogical possibilities.

Here Tiffany shares that prior to attending these sessions, she lacked knowledge of the different ways teaching and learning change when different technologies are used, especially the pedagogical affordances and constraints of technologies in relation to pedagogy, which she gained from the PD sessions. This type of teacher knowledge that she acquired at the workshops is referred to as TPK, which is highlighted in workshops that are content-centric as opposed to workshops that focus on learning of technical skills (Mishra & Koehler, 2006; Figg & Jaipal Jamani, 2013).

I have already planned how to implement QR codes and Pinterest in an upcoming session of my Language Arts Methods class. As well, there is an assignment in
this course that requires students to create a digital presentation of a Personal Literacy History. I have already used Timeglider™ to create an exemplar as a model for my students.

Tiffany had attended the PD workshops on QR codes and Pinterest. She then followed through by incorporating these technologies by planning technology-enhanced activities for her upcoming Language Arts methods course. She also incorporated another technology, Timeglider™, into an assignment, and created an exemplar to show to her students during the upcoming semester. The use of modelling a technology-enhanced activity is an effective strategy for teaching others how to use technology in content areas (Harris, Mishra, & Koehler, 2009; Jaipal & Figg, 2010) and this strategy was also modelled in the PD workshops.

At a recent conference, I facilitated a session that featured how certain apps on an iPad could offer ways to differentiate and assess students in literacy to graduate students. I repeated the session with my teacher education students; however, I needed to modify my session to work within IT requirements. I would be confident teaching other faculty members about offering teacher candidates ideas for differentiation and assessment through apps and even exploring how these apps might help them to differentiate and assess teacher candidates.

Tiffany describes the reflection on her own practice where she identified the need to modify her practice in her second iteration using iPads with her preservice teachers. She also conveys her willingness to teach other faculty how to use technology apps in her content area specialization of differentiation and assessment demonstrating confidence in her abilities to use technology to teach in her content area.

Ruth’s Experience

Ruth is a Professor, teaching language arts, and she conducts research into using technology in the language arts classroom, with a special interest in word study.

The workshops were part of a smorgasbord of opportunities I have sought out in the past few years to enhance my comfort level with technology. I am definitely a “digital immigrant” but I am willing to take risks and try new applications. I am particularly drawn to presentations and workshops that model or describe the effective implementation of digital technology in elementary classrooms.

Ruth acknowledged her lack of experience with technology and her willingness to make concerted efforts to enhance her knowledge of and comfort level with technologies that can be implemented in elementary teaching practice.

I attended the following workshop sessions: 1. Create an interactive presentation using Prezi; 2. Pinterest for interest; 3. Interactive research using QR codes and iPads (taken later); 4. Visuals galore! Enhancing instruction with the document camera. I found that two of the workshops moved too quickly for me (Prezi and
However, I have a better cursory knowledge of their functions than I did before the workshop. I am making use of both Pinterest and an Ipevo document camera in my pre-service language classes. I am creating a growing selection of Pinterest Boards to cover various educational interests of mine. Just today I found the hard copy of a tutorial we received on using Pinterest at the original workshop. I plan to go back over it to refine my use of this popular resource. I purchased an Ipevo document camera as a result of the workshop on this device. This past week I used the document camera while reading a picture book to my teacher candidates.

Ruth attended a number of the PD workshops on different internet technology applications, iPads, and the document camera, and found the workshops and tutorials useful for enhancing her technical knowledge (TK). Attending the PD workshop on the document camera had an influence on Ruth’s teaching practice evidenced by her purchasing her own document camera and using it in a highly appropriate manner for Language Arts instruction. The latter example also demonstrates how these content-centric workshops promoted the development of TCK—knowledge of content-appropriate technologies.

I would say that as a result of the workshops and other professional development opportunities, I feel much more confident using such applications in my own teaching. I believe I have a talent for infusing technology into my lessons in a meaningful manner to complement other resources rather than as a “razzle dazzle” stand-alone production. My students are responding in a very positive manner—describing how they are now using these ideas for their micro-teaching and upcoming teaching blocks. I find this extremely gratifying.

Ruth attributes her growing confidence to using technology in her teaching to professional development opportunities provided in this study. She demonstrates the positive outcomes of this project by reflecting on her relationships with her students, and describing how they have benefited from her use of technology in her teaching. One of the ways to assess the quality of research is reflecting on the benefits of one’s practice on others (McNiff, 2013).

As I become more familiar with technology, it is easier for me to learn new applications. Many of the same principles underlie various forms of software. The learning is incremental, so that my total knowledge base is not really extensive; it is simply that I am learning to turn the same few principles into multiple uses. I feel confident in working with one or two colleagues on how I use certain applications. However, the idea of creating a workshop and presenting it still feels like a giant leap for me.

Ruth shows increasing TPACK knowledge as she is able to make connections among technology applications (similarities of functions between applications) and its pedagogical uses in different content areas or contexts. She exhibits confidence to share her knowledge of certain applications by mentoring small groups of colleagues.
Katia’s Experience

Katia, a recent PhD graduate, is an instructor teaching courses in literacy and language arts and educational technology, and her research focuses on the integration of multmodality in K-12 literacy learning and motivational processes in learning with digital technologies.

As a teacher of digital natives, and a digital native myself, I have always sought to find more effective ways to incorporate technology into a traditional print-based curriculum. Prior to attending these workshops, I used technology (specifically, a desktop computer) in my classes to deliver instruction to my students (i.e., PowerPoint), conduct research on K-12 education topics, as well as distribute course materials and communicate asynchronously with my students via our online learning management system.

Katia is competent at using various types of technology in her instruction for different purposes such as presenting information and managing her course online.

By attending the “Pinterest for Interest” workshop, for example, I learned that this Web 2.0 tool was a great online resource for educators - a hub where my students and I could find everything from lesson plans for different grades to classroom arrangement and decorating ideas, and important topics such as bullying prevention. The “Interactive Presentations Using Prezi” workshop showed me that this Web 2.0 tool was a much more engaging alternative to PowerPoints and is better suited to meet the preferred learning styles and needs of today’s 21st century students. This workshop introduced me to new teaching ideas, some of which include the use of Prezi for digital storytelling and creating multimodal autobiographies. The immediacy and hands-on experience with the applications [in the workshops] were important aspects that contributed to my professional learning and increased confidence in teaching with these technology tools. I have subsequently transferred these skills, instructional strategies, and principles of practice to my classroom. As a function of collaborating with my colleagues, I was able to add a repertoire of instructional strategies, resources, and lesson ideas to my evolving technology toolkit.

Attending the PD workshops gave Katia knowledge of alternative Web 2.0 based applications that she could use in her instruction. Participation in the workshops and the collaborative research enhanced her TPACK knowledge—she learned about how to use technologies (e.g., Prezi) for specific instructional activities (e.g., digital storytelling) in particular content areas (e.g., language arts). The content-centric design of the workshops which included modelling an authentic instructional activity and an application phase where participants designed their own activity enabled Katia to make concrete links between content, pedagogy and technology and helped the visualisation and/transfer of the activity into her practice.
I am confident to teach other faculty members about the potentials and pitfalls of electronic books in classroom instruction. In my workshop sessions, I would have faculty members explore and critique a list of eBooks apps, as well as provide them with the opportunity to create their own eBooks that align with the Ontario curriculum expectations.

Katia is confident in her knowledge of how to teach with electronic books in language arts instruction and volunteered to conduct a workshop.

**Discussion**

In this study, the experiences of a group of Teacher Education faculty, including instructors and graduate students (n = 48), contributed to changes in the design of the second iteration of PD designed to support technology-enhanced instruction in higher education. As well, the narratives of 3 faculty members reflecting on their professional learning, offered insights into how the PD influenced faculty members’ adoption of technology in teaching practice. Overall, the 48 participants attending the workshops indicated that the design of the PD opportunities provided by the initiative were very satisfactory. They expressed satisfaction with the structure and content of the workshops, indicating that they found the modeling and application phases useful for developing knowledge of technology-enhanced instruction that could be transferred into classroom practice. They also provided recommendations for change. Consistent with design-based research, the second iteration of the intervention (the workshop series) was modified per participant feedback. Additionally, faculty members in the Digital Pedagogies Collaboration initiative, after participating in the workshops, reported increased confidence and plans to incorporate of the workshop technologies in their instructional practice (retreat field notes and narrative reports). These findings suggest that the TPLDM workshop model was effective for designing PD workshops to develop TPACK knowledge.

The three case narratives further highlight the practical changes in teaching practice and the growth of teacher knowledge about how to teach with technology (TPACK) Although all three faculty member participants demonstrated different levels of technical skill and confidence in using technology, participation in the workshop series enabled them to gain confidence in using specific tools that were relevant to their practice. They were then able to plan for and implement technology enhanced teaching activities in their classroom practice (Tiffany included QR codes and Pinterest into her course; Ruth incorporated the document camera into her language arts instruction; and Katia used Prezi during instruction on digital storytelling). As well, all three faculty members could articulate ways in which they would adapt the technology encountered in the workshops to meet student learning needs. Another goal of this project was to develop leadership skills in the area of technology teaching and provide leadership opportunities for faculty to teach workshops; two of the participants, Katia and Tiffany, indicated a willingness to conduct Lagniappe workshops, and Ruth is willing to mentor others in small groups. These findings reinforce that for this small group of faculty, participation in the research collaborative, the Digital Pedagogies Collaboration, enhanced confidence in their abilities to use technology to
teach their students and to also share knowledge of their technology-enhanced teaching practices with other faculty in formal (workshops) and informal contexts (small groups).

Additionally, the PD was initiated and organised by a group of faculty with funding from the Teacher Education department. As such, a supportive peer community was created for faculty to collaborate with other faculty on how to use technology in teaching practice (the literacy professors shared their ideas and experiences with other literacy professors) and to engage in collaborative research and writing. These types of support have been recommended for promoting faculty adoption of technology in teaching practice (Keengwe, et al., 2009) and the Digital Pedagogies Collaboration was successful at supporting some faculty in this study to integrate technology into their university courses and conduct research and write about their developing practice. We hope that further iterations of the workshop series with faculty members as workshop leaders will encourage more faculty members to participate in the PD collaborative, increasing system wide impact.

**Significance and Implications**

Similar to Lan (2001) and Bai and Lehman (2003), our professional development model was designed to be purposeful, beneficial to professional practice, and address faculty members’ content learning goals. The choice of technology for the workshops was based on faculty members’ expressed needs, as well as what is currently being used by teachers in the local school boards so that teacher educators were introduced to technology relevant to current teaching practices in the field. The model of collaborative professional learning that we implemented is unique in that it uses design-based research, involving a sustainable, recursive action cycle – attending Lagniappe workshops designed with the *TPACK*-based Professional Learning Design Model (*TPLDM*) (Jaipal-Jamani & Figg, 2015), then planning and implementing technology enhanced activities within personal instructional practice, reflecting and writing narratives about the process, and finally sharing this knowledge with others through facilitating Lagniappe workshops or mentoring. A benefit of design-based research is that the intervention evolves based on participants’ experiences and future needs. It is not a static process but is dynamic.

The design of the PD workshops using the *TPACK*-based Professional Learning Design Model (*TPLDM*) translates TPACK theoretical principles into practical classroom applications. This theory-practice transfer is facilitated through the four phases of the workshop model [For further information on this workshop model, refer to Figg & Jaipal Jamani, 2013].

Consistent with other studies that implemented study groups, mentoring and coaching as effective ways to facilitate professional development (Borko et al., 2010; Hung & Yeh, 2013), our study extends the literature by incorporating a technology research collaborative leading to both professional development (*TPACK* knowledge for technology enhanced teaching) and scholarly reflection in the form of self-study (Figg, Griffin, Lu, & Vietgen, 2008; Gallagher, Griffin, Ciuffetelli-Parker, Kitchen, & Figg, 2011). Participants, being involved as both learners and researchers, supported each other in the devel-
opment of the technical and pedagogical skills necessary for technology enhanced teaching and engaged in narrative documentation of their changing teaching practices. Such individual stories contribute to better understandings about the experiences of faculty as they adopt technology in practice (Keengwe, et al., 2009). While such findings cannot be generalized, the lived experiences of different individuals as reflected in the self-reported feedback on satisfaction surveys and written narratives of PD experiences in a natural setting, offer insights about how to promote faculty use of technology in higher education instruction and can inform the design of similar PD initiatives in similar settings.

The present study has also addressed some of the barriers raised in the literature to faculty adoption of technology-enhanced teaching (Butler & Sellborn, 2002; Johnson et al., 2013; Otero et al., 2005). The barrier of time to learn was addressed by repeating workshops and offering them over consecutive days and during the year to provide more options for attendance. The belief that technology may not be critical for learning was addressed by designing workshops using the TPLDM workshop model which focuses on how technology meets content learning outcomes rather than technical skill instruction. Reliability of the technology was addressed by selecting software applications that were easily accessible in classrooms via the Internet, and hardware such as a document camera that were available for use at the university with institutional support. Further pedagogical and technical supports were provided to faculty by the lead researchers. Overall, the findings indicate that the peer-supported, collaborative PD initiative, incorporating content-centric professional development experiences (Figg & Jaipal, 2013, Figg & Jaipal Jamani, 2013) where faculty mobilised themselves into action (McNiff, 2013), promoted the development of knowledge about technology-enhanced teaching (TPACK) and the transfer of that knowledge into practical classroom applications.

References


Caring In Teaching: A Complicated Relationship

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Abstract

This article addresses how developing caring relations with students at a community college effectively supports students’ needs and ultimately success. At the same time, I discuss my own personal dilemmas while creating relationships that focus on students’ needs. I use Nel Noddings’ ethic of care theory to discuss how her ideas and the idea of others have challenged me to think about and develop an ethic of care enriched by my own teaching and interactions with my students. In this paper, I use three vignettes to illustrate: the profound difference caring can have on one student; sometimes one’s caring will lead a student to remove herself from academe; and the power of caring in terms of community. I conclude cautiously, knowing that the demands involved in developing caring relations is complicated by the needs of many: the students’, my own and the institutions’.

Keywords: Pedagogy, higher education, curriculum instruction, ethic of care and teaching, student-instructor relationships.

“The professor doesn’t care!” Sarah cries. I stare solemnly at the young woman sitting to the left of my desk. How many times have I heard students who come into my office make the same complaint? As Associate Professor and Deputy Chair, I teach in the English department at an urban community college. Similar complaints are made about faculty in all disciplines, and many students have reached out to me seeking an explanation for why some of their college professors just do not seem to care about their success. I strongly believe that the majority of teaching faculty care about their students. However, education philosopher and care theorist Nel Noddings (2002) has argued, “Caring about [emphasis added] is empty if it does not culminate in caring relations” (p. 24). For the most part, theories of care in education are often discussed and emphasized in teaching programs where the focus is on teaching K-12. When it comes to higher education, the focus in teaching has traditionally been centered on content area expertise. Yet, the caring relationship between teacher and student is essential in higher education as well (Thayer-Bacon & Bacon, 1996). I put forward in this paper that developing such a relationship founded on common goals, intellectual pursuit, and emotional investment in another individual has the potential to meet the challenges college students face as they pursue a better life.

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As the benefactor of caring relationships with former teachers in both elementary and graduate schools, I personally know the powerful impact they can have on the human spirit and how they can lead to success inside and outside academe. My life experiences are similar to many students I teach at the community college.\(^2\) I have felt the destructive effects of poverty on the mind and heart. I am also the second youngest of 10 and the only one in my family to earn college and advanced degrees. I know the struggle of raising children and working full-time while attending college as a full-time evening student. I am familiar with the weight of impossibility caused by low self-esteem and academic under-preparedness.\(^3\)

I have read the recent dismal statistics on graduation rates for disadvantaged groups in our society.\(^4\) Teaching at an urban commuter community college populated by a large ethnically diverse student body means that I must use my position of power responsibly to improve student learning and achievement. In this regard, an ethic of care has helped me address how my own attitude and behavior affect the types of relationships a student can create with me, ultimately keeping in mind how these relationships can “maximize student learning” (O’Brien, 2010, p. 114). One way to change the status quo requires that we pay attention to our pedagogy at the college level so that students can achieve their academic and social dreams. Hence, fostering relationships with students is especially important for students who find school challenging (Gay, 2000; Noddings, 1984, 2012; White, 2003) and can make the difference between failing and succeeding. I am a strong proponent of an ethic of care that creates educationally effective relations with college students who, while having the statistical odds stacked against them, deserve fair opportunities for success.

**An Ethic of Care: Foundations**

Education philosopher Nel Noddings’ (1984) expansion of psychologist Carol Gilligan’s (1982)\(^5\) work significantly influenced how schools and educators understand and practice

\(^{2}\) “Community colleges play an important role for students who are underrepresented in higher education. For example, two-year institutions enroll higher percentages of first generation college students than four-year institutions, as well as higher percentages of low socioeconomic status students and older students (Provasnik and Planty, 2008). These institutions also are important pathways to degree attainment for underrepresented minorities (African Americans, Hispanics, and Native Americans), since individuals from these racial/ethnic groups account for a higher percentage of the enrollees at two-year colleges than at four-year colleges. African Americans comprised 15% of the enrollees at two-year colleges in fall 2009, compared with 14% at four-year colleges. Hispanics comprised 17% of the enrollees at two-year colleges, compared with just 10% at four-year colleges, and Native Americans accounted for 1.2% of the enrollees at two-year colleges, compared with 0.9% at four-year colleges (Snyder and Dillow)” (Bell, 2012, para. 3).

\(^{3}\) Another study using national data found that 58% of recent high school graduates who entered community colleges took at least one developmental course. Only about one quarter of these students (28%) went on to earn any degree or certificate within 8.5 years (Attewell, Lavin, Domina, & Levey, 2006) (cited on Community College Research Center website).

\(^{4}\) With so many students underprepared for college, the two-year college has faced dismal graduation rates. Recently, the American Association of Community Colleges reported that graduation rates increased from 22.1% to 27.6% (2014 online Statement), indicating there is more work to do. The urban, commuter two-year college where I teach enrolls approximately 22,000-24,000 students per semester. The graduation rate within our own institution, while recently rising, remains a major concern.

\(^{5}\) In the 1980s, in work led by Carol Gilligan, care ethics became a recognized approach to moral philosophy. She argued, “Women’s development was set within the context of caring and relationships and the
care in education. Noddings paved the way for many practitioners like myself to understand the importance of making a moral decision to enter into a relationship that “has both cognitive and affective dimensions” (p. 775). In Caring: A Relational Approach to Ethics and Morals, Noddings (1984) has reminded me to reach back to memories of being cared for in order to grow relations (p. 80). Her work has repositioned me to dismantle the often rigid and oppressive student-teacher relationship models that view students as receptors of the teacher’s knowledge and, in effect, construct barriers to my own and my students’ education and learning. Noddings presented three key factors as a guide: engrossment, motivational displacement, and reciprocity. Specifically, students’ needs, teacher’s motivation to address student needs, and student’s acknowledgment of the teacher’s response to her or his needs make up the caring relationship.

Some critics of Noddings’ work have questioned the need for observable reciprocity as discussed in her theory (White, 2003). White also called for a more “principled approach” that takes into consideration “trusting and caring relationships of the highest and deepest order” (p. 318). Challenging Noddings’ notion of reciprocity, White offered that faith in humanity and faith in God “can sustain one caring in the face of situational confusion, competing needs, and hostile opposition” (p. 316). Other conceptions of care include a more “collaborative caring” (Bateson, 1989, p. 114), one which Sumsion (2000) described as “creating relationships that honour the connections and the space we all need to more effectively continue to develop our capacities, insights and talents so that we might come closer to fully realising our personal and professional potential” (p. 174). The idea is empowerment that considers the needs of both persons within the relationship: student and teacher. Working with middle-school Latino and African American students, Gay (2000) in her book on culturally responsive teaching followed the conception of Webb, Wilson, Corbett, and Mordecai’s (1993, in Gay, 2000) that:

... caring is a value and a moral imperative that moves ‘self-determination into social responsibility and uses knowledge and strategic thinking to decide how to act in the best interests of others. Caring binds individuals to their society, to their communities, and to each other’ (pp. 33-34). (p. 45)

There are various conceptions of caring and what it looks like in the classroom, and in each case, scholars have pointed to the importance of Noddings’ work in the development of the field. In this regard, there is no single definition. However, within each conception, the conviction in developing a relationship with others remains consistent.

Caring in Postsecondary Settings: A Brief Review

I have heard some of my colleagues say, “Caring for your students will only cause them more harm” and “What happens when students transfer to the four-year college where the teachers care more about their research than the student?” The idea that college professors should not care about their students is limiting and detrimental to the students we

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concept of self was rooted in a sense of a connection and relatedness to others” (Medea, 2009, para. 9). (See also Gilligan’s (1982) book In a Different Voice: Psychological Theory and Women’s Development.)


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teach and “undermine[s] instructional effectiveness” (Meyers, 2009, p. 208). Perhaps this sort of thinking accounts for the dearth of research on care and teaching in higher education beyond education departments. A search on Google Scholar for articles in higher education and caring and teaching, resulted in a short list compared to the bulk of articles found in a similar search at the elementary and secondary education levels. Furthermore, higher education journals with articles that discuss an ethic of care or caring pedagogy focus on teacher training and teacher education programs. Meyers’ (2009) also mentioned that some faculty “doubt that caring has a place in college-level instruction, and instead believe that it is more appropriate for younger children” (p. 207).

Nevertheless, in recent years, a few studies in higher education have emerged. Some studies have focused on student characterization of teachers’ caring behavior (Straits, 2007), such as being “open, available, and responsive” (p. 172). While office hours are part of the teaching schedule in higher education, the students in this study specifically pointed out how the teacher spent extra time outside of these hours. Haskell-McBee (2007) collected data from informants in teacher preparation, classroom teaching, and college-level preparation of new teachers, all of whom were associated with a large university-based teacher education program that serves a diverse population. The survey asked “what caring in educational context means to respondents, how they show their students that they care for them, and how they teach caring to their students” (p. 35). Overall, 78 characteristics of caring teaching were identified, but Haskell-McBee emphasized the top seven most frequently identified: “offering help, showing compassion, showing interest, caring about the individual, giving time, listening, and getting to know students—are described by at least one-third of the respondents” (p. 36). In discussing traits, Meyers (2009) added that teachers demonstrate “concern for students,” “respectfulness and willingness to answer questions and foster interactions” (p. 206) and “acknowledging [student] successes and struggles, and actively encouraging learning” (p. 207). Furthermore, De Guzman et al. (2008) suggested that certain “acts of caring” are exhibited by teachers who are referred to as “caring agents.” The teacher “make[s] use of class time productively, shares personal experiences in classroom discussions, and observes class policies, among others” (p. 498). De Guzman et al. focused on Filipino college “students’ views of their teachers’ caring behavior and their orientations as cared-for individuals” (p. 498). The study also revealed that students’ self-esteem and self-evaluation were heavily influenced by the teacher’s caring behavior and attitude toward the students (see also Sava [2002] as noted by De Guzman et al. [2008] and Foster [2008]). These researchers asserted that “[T]eachers’ caring behavior pushes students to do well and excel in class activities, meet teachers’ expectations; effect positive changes through proper channels, experience self-discovery and appreciation and at times, test the limits of boundaries set in class” (p. 499).

Similarly, Foster’s (2008) study of 32 underserved and economically disadvantaged students in an early college high school program at Decameron Academy elucidated the argument that caring teachers impact on student behavior and perceptions of self. Prior to entering the study, the research participants admitted to not wanting to be in school and

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7 Noted in the Abrami, d’Apollina, and Rosenfield’s (1997, cited in Meyers, 2009) study using student-rating systems of their professors.
believed their teachers felt the same. On the contrary, during the study and while students attended the school, their perceptions of their teachers highlighted “their teachers’ commitment to their learning and academic success” (p. 113). Through an individualized approach that offered teacher home visits, identified students’ learning styles, continued cell phone communication between teacher and student, and provided access to college campus and college life, students came to view the teachers and administration as positively impacting on their desire to succeed in school. They also began to see education as it related to them as an important part of their future success—something they had not experienced prior to the study. As Foster concluded, “The medium for change is the coconstruction of a nontraditional, intense, and personalized relationship in which student and teacher embark on what is essentially a corrective experience of school, teacher, and education” (p. 118). A result of the study provides evidence that developing relationships with students as they embark on their education journey has transformative power.

Studies that have illustrated teacher immediacy stemming from communication theory have additionally pointed to teacher immediacy as an important factor in student academic success and “provides the firmest foundation for the idea that caring makes a difference in students’ educational experiences” (Meyers, 2009, p. 205). Velez and Cano (2008) submitted in their research on teacher immediacy and student motivation that demonstrating care is important, and “If instructors intend to facilitate an optimal classroom environment, they must send supportive, caring communication messages to all students” (p. 84). These researchers were concerned with “qualities that positively enhance teacher effectiveness” (p. 76). According to the findings, “Students will have a greater likelihood of emotionally and cognitively engaging in a course when the instructor demonstrates (positive) verbal and nonverbal immediacy” (p. 84). Teacher immediacy viewed from Velez and Cano’s perspective had a profound impact on developing effective and rich learning experiences for students.

Using personal experience, both O’Brien (2010) and Sumson (2000) discussed a deliberate caring practice that takes into consideration competing institutional and personal challenges that make care ethics very difficult to maximize such as overwhelming institutional stresses, including “demands for publishing and expectations for 24/7 availability that come with technology” (O’Brien, 2010, p. 113). Sumson (2000) called for a more “comprehensive caring” which considers the needs of both parties within the relationship, a more collaborative type of caring needs to be enacted (a notion located in Bateson [1989] and noted in Sumson [2000]), especially given the continued demands on faculty to meet student learning outcomes and institutional and professional goals.

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8 Teacher immediacy research provides an important place from which college professors can learn about how their verbal and nonverbal communications with students impact student behavior and motivation in the classroom (Velez & Cano, 2008; Witt, Wheeless, & Allen, 2004).

9 “Praise for student efforts, humor, self-disclosure, willingness to engage students in conversation, and overall openness and willingness to meet and interact with students” (Edwards & Edwards, 2001; Gorham, 1988, as cited in Velez & Cano, 2008, p. 78).

10 “Eye contact, body position, physical proximity, personal touch, and body movement” (Richmond et al., 1987, as cited in Velez & Cano, 2008).
Not only do caring college instructors impact on students in the classroom, but they also have a long-lasting impact on students, according to the Gallup-Purdue Index Report released in summer 2014. In *Chronicle of Higher Education*, writer Scott Carlson (2014) reported that based on that study, college graduates had double the chances of being engaged in their work and were three times as likely to be thriving in their wellbeing if they connected with a professor on the campus who stimulated them, *cared about them* [italics added], and encouraged their hopes and dreams. (para. 1)

The study also revealed that only “27 percent had had professors who cared about them” (para. 11). A care ethic is especially important in the community college setting where students are traditionally underprepared or academically *inexperienced* (as described by Shaughnessy [1977]), and where low self-esteem abound and societal and personal stresses often lead to low retention and unrealized dreams.

Caring Encounters

I regularly teach a second-level remedial writing course and Composition I and II courses. The regular teaching load is very heavy: an annual 27 hours teaching with 6 office hours to share with 115-145 students each semester. In addition, full-time tenure-track instructors must engage in college, department, and community service as well as publish. The general education English courses are often at capacity: 29 for Composition I and II, and 35 students per second-level course. Placing adequate caps to better prepare our academically underprepared students continues to be a major issue in our college. At times, much to the faculty’s dismay, the course caps are exceeded to meet the student demand for courses. While the overwhelming workload can make adopting a caring pedagogical stance burdensome for overworked faculty, it is with honest reflection on and deep belief in our responsibility to help students succeed in community college that I share how I have enacted care in my teaching. It is not easy and often overwhelming, but also deeply fulfilling to develop caring relationships with students and see them thrive in part because of those relationships.

**Vignette One: “I just don’t feel like I belong here.”**

In Fall 2014, Marcos Williams (pseudonym), a 33 year-old student in my Composition II course, carried a large backpack and two smaller plastic bags into the classroom every day. He often looked disheveled in his dark blue jeans and puffy black winter coat, and he always apologized for being late. After two weeks of his coming late to every class, I handed him a note and asked him to meet with me to discuss his lateness. In my office, Marcos expressed his needs clearly. He was living in a temporary shelter and carrying his belongings with him wherever he went. He was also dealing with fears of belonging; he viewed himself as lacking the skills and education experiences to enter into classroom discussions of the texts we were reading. He had not been in school since he graduated at the age of eighteen. He pointed out that he really did not know how to read literature. In his college courses, he felt out of place among the many young students. Even though we...
reviewed areas that concerned him in class, he was still unsure of himself—not an unusual feeling for many students to experience. We agreed that he would come see me after class on Thursdays and Tuesdays if he needed. Over the semester, these meetings proved very productive for him. While he was still late for class, he always came prepared. He spoke in class and worked diligently in groups. I encouraged him to involve his peers in his questions and concerns about the literature we were reading. Students responded to his questions and shared their own ideas. He had very different perspectives. They wanted to know what books he read. His entire attitude toward college began to change, supporting what the research on care in teaching suggests: students succeed at a higher rate and become productive learners in environments where teachers demonstrate their care about and for their students (Gay, 2000; Noddings, 1984, 2012; O’Brien, 2010; Russo-Gleicher, 2011; Straits, 2007; Sumson, 2000; White, 2003).

Not all students feel comfortable expressing their needs as Marcos did. I would caution that expressing oneself in front of the teacher is characteristic of western education practices. In her work with culturally diverse students, Gay (2000) explained: “Immigrant students from traditional cultures with a rather rigid hierarchical social structure enter U.S. classrooms. They have been socialized to be passive and deferential in interactions with teachers and to treat teachers with respect at all times” (p. 54). Essentially, cultural differences may make expressing needs unlikely for some of our students, which suggests that instructors may have to rely on observable needs—for example, when students do not purchase required course texts or complete assigned course work, perform poorly on assignments, attend class sporadically, and do not participate in classroom activities. When there is an evident need, it is incumbent on the caring instructor to find out how she or he might address that need. Russo-Gleicher (2011) in her article “The Empty Desk: Caring Strategies to Talk to College Students About Their Attendance” spoke frankly about the absenteeism of community college students in her courses and suggested “demonstrating acts of caring” (p. 63) that include writing letters to students, speaking privately to students, and conveying empathy and hope (pp. 65-67).

Rather than wait for students to express a need, O’Brien (2010) initiated and reached out to offer a relationship that began with “one-on-one initial meetings” (p. 111) which has been tremendously beneficial to her students. The invitation essentially provides an opportunity for O’Brien and her students to get to know each other. She shared, “We almost always find a point of connection during our conversations, and this helps us both to see the other as someone we can know” (p. 112). As a teacher-educator, she understands what is at stake for her students and how student experiences in her classroom lay the groundwork for their future role as teachers. White (2003) also cautioned, “Schools are filled with outwardly unresponsive students, a situation that requires teachers to exercise patience and persistence in teaching and caring” (p. 308). Certainly most teachers have had experiences with unresponsive students who need us more than students who are able to voice their concerns more articulately.

Having understood there is a need, Noddings (2012) recommended that if it is within the instructor’s power to resolve an issue or a conflict, she should; if not, she should work to maintain the caring relation (p. 771). In my experience with community-college students,
this has meant reaching out to the larger college community and utilizing such resources as the Women’s Resource Center, Learning Resource Center, Counseling Department, English as a Second Language Lab, Veterans Affairs Office, Office of Accessibilities, and others. Caring for my students has expanded how I view my role as a teacher. I see myself as part of a larger network of people working together to support the students’ needs. Developing caring relations has broadened my understanding of community and ensured greater success for my students. I no longer view student success as the sole responsibility of the teacher, but rather of the college community. The idea of community as part of a caring relationship is critical, particularly for students who may not have a support network at home.

**Vignette Two: “Being here is not my choice.”**

Listening is an integral part of creating the caring experience (Noddings, 2012, p. 773). I am continually reminded by Noddings that in order to engage in a caring experience, I must listen to the students and put their needs before my own and even those of the academic institution. Not long ago, a young African American female student responded to my email to meet with me to discuss her excessive absences. Tanya (pseudonym) shared with me that she was in her second semester and hated college. She explained that her parents forced her to attend college to study business so that she could take over the family real estate business one day. But, she wanted to get her real estate license.11 As the instructor representing the college, I understood that the administration would expect me to convince the student to stay and finish her degree, but she was adamantly exhibiting her disinterest by not attending classes and not completing course assignments. I felt motivated to help her.12 We sat in my office over the next hour or so reading through real estate programs online. She settled on one she seemed to like and said she would look into it. She was absolutely certain that college was not where she wanted to be. She never returned to class. A week later, I learned from her classmate that Tanya had dropped the course and enrolled in a real estate school. Leaving college is a reality for some students. To show care for such a student was to see her specific need and problem, even if the solution was not the expected philosophy of the school to retain students until they graduate.

**Vignette Three: “We’re all in this together.”**

In Spring 2014, I taught a developmental English course with twenty-two ethnically and linguistically diverse students enrolled. Students test into the course if they have failed the college entrance-writing exam. The purpose of the developmental course is to prepare students for academic writing. They have two opportunities to pass the exam: tenth week

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11 Noddings (1984) suggested that the instructor does not judge; instead, “I receive the other into myself [so that] I see and feel with the other” (p. 30).

12 A caring stance asks that I “…[s]tep out of [my] own personal frame of reference into the other’s. When we care, we consider the other’s point of view, his objective needs, and what he expects of us. Our attention, our mental engrossment is on the cared-for, not on ourselves. Our reasons for acting, then, have to do with both the other’s wants and desires and with the objective elements of his problematic situation” (Noddings, 1984, p. 24).

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and final week of the course. The pressure to succeed can be overwhelming for both the student and the teacher.

In extending the moral climate as Noddings (2012) advocated, instructors are encouraged to intentionally create a climate of care and look for ways “in which caring relations will continue to flourish” (p. 779). From a caring stance, the relationships we develop with our students are deliberative, and “an ethic of caring guides us to ask: What effect will this have on the person I teach? What effect will it have on the caring community we are trying to build?” (Noddings, 1986, p. 387). Thus, in the middle of the semester, I mentioned to the students that the Women’s Resource Center director was hosting a “Good Deeds Day” event: did they want to do anything for others, and if so, what? Eventually, the students pooled their money and collected donations from friends and family to purchase coloring books for young children in the college’s daycare center. The student-led acts of giving and caring for others created a strong bond among all of us.

In the classroom, we easily fell into discussions about the assignments and life in general. Students seemed more forthcoming in voicing their fears about the upcoming midterm and final standardized tests. I felt trusted and plugged into their lives; as a result, I trusted them with my own feelings and concerns. I learned that some students lived with illegal immigrant relatives at home. Another student’s mother constantly belittled him by yelling that he would amount to nothing. A girl from Haiti, despite being painfully shy, shared that she wanted to become a teacher. One student from Africa felt a deep lack of confidence about his language skills compared to his American peers; the entire class encouraged him to continue to put his best effort into overcoming his challenges as an English as a Second Language Learner. Students volunteered to read each other’s papers and make critical comments for improvement. Many of these voluntary peer-reading and writing activities took place outside the classroom and were brought into the classroom. In the tenth week of the semester, the group of students who passed the course became volunteer tutors on the days they did not attend class. Without my prompting, they volunteered and emailed each other with peer-review comments.

The encounters with students taught me that a caring attitude and behavior change more than one individual; they can change an entire group. We were able to have authentic conversations about our lives. The impact of caring was palpable. The experiences we had as writers, readers, and young activists promoted a sense of caring that spread outward from our classroom into the community. The students became more conscientious about their course work as a growing process. Today’s nearly obsessive focus of education on measurable outcomes can easily ignore the power of care in learning within the college classroom. At the end of the semester, I asked the students to reflect on the learning and relationships that had developed and whether they had influenced persistence in the course. Some students commented:

- It’s unexpected to find a professor who cares so much that she interacts so much with her students. I loved this class of students.
- Because I knew the professor cared, I gave my opinion in class. I trusted that she and the other students really wanted to know what I think.
- I probably would have dropped the class if the professor hadn’t been as caring.
• I think she led us to become a community of people who cared about each other and I believe we learned to care, to truly care for each other. We helped each other even outside the classroom. We made important relationships. I will never forget.
• I like that the professor asked us questions about what we were learning. I like that she included our thoughts.
• The professor made me more responsible by giving me feedback on my work that made me want to do better. She uses language that encourages the students to work harder. She really shows she cares.

The students’ comments about their classroom experiences supported the literature looking at how students perceive caring instructors (Straits, 2007; Thayer-Bacon & Bacon, 1996). Foster (2008) illuminated this further:

The impact of perceived teacher care on students’ school-related behavior and motivation is associated with a wide range of positive outcomes including higher attendance (Cornelius-White, 2007; Goodenow, 1993; Kojima & Miyakawa, 1993), time spent studying (Rosenfeld, Richman, & Bowen, 2000), increased academic achievement, and lower drop-out rate (Gill-Lopez, 1995). (p. 106)

In essence, establishing caring relations with our students can lead to better student success. Moreover, sometimes the effect of teacher-student relations can last after they have long left their classrooms and their teachers’ offices (Carlson, 2014). I know this firsthand as a student and teacher.

**Challenges: A Natural Part of Caring**

Teaching with a care ethic involves a serious time and emotional commitment, and the pressures to be an “effective” and “good” teacher and meet professional commitments are, at the very least, challenging. As Noddings (1984) acknowledged, “There is always the fear that with so much pressure the one-caring may find herself facing the risk that she will cease to care” (p. 12) or that the emotional labor required will create the impetus to “display that which are perceived to be expected emotions” (Ogbonna & Harris, 2004, p. 1189). In all honesty, on some days I simply wanted to close my door and hide from Marcos to preserve a few minutes to myself and my other duties. Noddings (1984) has stated that “conflict and guilt are inescapable risks of caring” (p. 18). Yet, I understood deeply that Marcos had no one else and needed my assistance at that time. Noddings spoke powerfully to a deeper need that the instructor has for developing caring relations with her students: “... it is our longing for caring—to be in that special relationship—that provides the motivation for us to be moral. We want to be moral in order to remain in the caring relation and to enhance the ideal of ourselves as one-caring” (para. 4-5). As Noddings suggested, I do have a profound need to be a part of these special relations with my students. Yet, I know I have more work to do as I learn to speak candidly to students about developing an empowering relationship for all involved parties—one that honors each person’s responsibilities to self and others.

Another particular challenge needing attention is that a teacher-student caring relationship occasionally cannot be sustained because of asymmetrical power dynamics. “I’ve
found it especially challenging—sometimes impossible—to keep a caring relationship intact when one person has the power to assess (read: judge) another,” noted O’Brien (2010, p. 113). Failing a hard-working student who does not seem cut out for a particular field of study after having established a close relationship with him or her can be painfully uncomfortable. To address issues and concerns with student failure, intervention becomes an important act on the part of caring instructors at the community college. I have engaged in and been witness to colleagues wrapped up in negotiations with students to move a missed deadline, give extra-credit assignments, and accommodate inflexible work schedules to ensure student success.

Recently, one of my students, Frank (pseudonym), met with me and told me forthrightly, “I was a failure in elementary school, a failure in high school, and now I’m a failure in college.” He had missed over two weeks of classes. Earlier in the semester he had lost his job and needed to find one quickly as he was responsible for coming up with $1200 a month in rent. During our meeting, we spoke about what he could change in order to attend regularly and meet assignment deadlines. When he left my office, I was hopeful. A day later when classes resumed, Frank was nowhere to be found—no email, no note in my department mailbox. For many students, the responsibilities of college combined with challenging personal problems and responsibilities (e.g., sudden unemployment, homelessness, pregnancy, illness, etc.) often lead them to drop courses. We have an evaluative and institutional role that should not be diminished by the relationship we have with students. As instructors, we can establish a caring learning environment to nourish student potential, but eventually the students dictate their own place in that environment—and we can continue to understand, encourage, and accept those needs.

Entering into and sustaining a caring relationship with students is not always possible or plausible, given variables that have the potential to shut down these avenues of possible growth for both students and instructors. Also of importance is that not all students are receptive to an approach built on developing a relationship.

**Drawing the Line: What Is Real, What Is Possible**

A particularly important area that must be given attention is the issue of boundaries and ethics in teacher-student relationships. Popular culture has created two opposing views. I grew up watching some movies that glorified and romanticized the college teacher-student relationship: *The Graduate* (1967), *Manhattan* (1979), and *Notes on a Scandal* (2006). Now, more recently trending on family television shows such as *Pretty Little Liars, Glee,* and *Gossip Girls,* unacceptable relationships with teachers and students abound. Romantic relationships between student and instructor do occur, and they are inappropriate. On the other hand, I have been inspired by the teacher-student relationships portrayed in movies such as: *To Sir, With Love* (1967), *Stand and Deliver* (1988), *The Great Debaters* (2007) and *The Freedom Writers* (2007) to name a few. Developing a caring relation makes us both—instructor and student—vulnerable, and we are bound by our professional role in students’ lives to recognize which boundaries cannot and should not be crossed.
I would argue that my relationships with students grow out of an *educative nature*—a term used by Smith & Smith (2002) in the article “Friendship and Informal Education.” I understand the term to mean that a teacher-student friendship can stem from common interests in each other as human beings and that “the shared excitement in the subject, the experience of discovery, and the search for further insight and knowledge can bring people closer together” (para. 21). The common commitment to and interest in education and the sense of community created in the classroom can cause the seeds of friendship to grow. However, Meyers (2009) cautioned, “increased investment and involvement in students’ lives can potentially blur the distinction between faculty and friend” (p. 207). It is important to note that when a teacher and a student meet equally, the possibility of friendship exists, but the unequal relationship is also part of the student-teacher relationship (Noddings, 2008, p. 88). As the instructor, we have power over the students and need to use that power professionally. As a friend/teacher we also need to be aware of possibility of favoritism that may occur. While it is easy to grow closer to one student or a group of students over others, we must maintain our professionalism and treat all students equally and fairly. Meyers (2009) emphasized, “Effective, caring faculty members balance their connection with students by setting limits as needed, by enforcing classroom policies in consistent and equitable ways, and by maintaining democratic and respectful authority in the college classroom” (p. 207). We must always be clear with our students and treat everyone the same. If we let one student turn in a paper late then everyone else must have the same allowance.

**Feeling Cared-for: Cautious Conclusion**

While acknowledging that one’s care toward others helps both parties continue to participate and develop a relationship, I am inclined to disagree with Nel Noddings on the degree to which it can make or break the relationship. As a student, I did not always let my professors who cared for me know how much their attentiveness and encouragement meant to me. Only years later did I understand the profound impact they had on my growth as a person and on my life. Similarly, White (2003) likewise troubled Noddings’ claim that reciprocity needs to be observable. He declared:

> It is a mistake to judge the reception of caring (or the possibility of such reception) by sight, for reception might be present but unobservable. It might take the form of quiet reflection on the bus home from school or just before sleeping. Reciprocity might also be displayed but disguised, unrecognizable: A student could reciprocate by coming to class instead of cutting or by choosing not to take her own life. A caring teacher might never know what her caring has wrought in the lives of her students. (p. 308)

We naturally want those we care for to show some appreciation for the time and effort we expend in nurturing our relationships. As a teacher, I feel great satisfaction in seeing my students flourish.

Instructors must come to terms with their own understandings and practices of an ethic of care. There is no one way to achieve this, nor are all students interested in these types of
relationships. I can only offer what has worked for me. Taking a caring stance in my teaching has created an atmosphere of possibility that allows students to explore truly and authentically what they are learning. While caring theory is not a magic pill that dissolves the challenges that arise in teaching at the college level, it offers an important place from which to teach—one that has taught me to listen and observe student needs carefully and to think critically about how and if I can attend to them. Knowing the importance of students’ needs on their journey to success has strengthened my role as an effective teacher. At the same time, I am learning to become a better teacher by enlisting the college community so that I may claim time of my own for meeting my professional and personal needs. The dilemmas associated with creating relationships with students are real and complicated. In my 11 years of teaching at a community college, I have experienced the constructive power of caring interactions with my students, and I am humbled by these extraordinary relationships founded on accentuating mutuality.

**Instructional Recommendations:**

Developing relationships that support college student success is key to establishing a caring environment in which both student and instructor can thrive. The following is a list of instructional approaches to help faculty to begin developing a deliberative caring pedagogy: Be open, available and responsive (Straits, 2007); offer help as soon as a problem arises, show compassion, listen to student ideas, get to know them beyond just their names (Haskell-McBee, 2007); foster interactions with students; answer student questions, acknowledge success and struggles, actively encourage learning (Meyers, 2009) through teacher feedback both verbal and written; use class time productively, share personal experiences and views with students, observe class policies (De Guzman et al., 2008); show commitment to student learning and academic success, and identify student learning styles (Foster, 2008); send supportive caring communications as well as demonstrate positive verbal and nonverbal communication (Velez & Cano, 2008); convey empathy and hope, speak privately to students about concerns (Russo-Gleicher, 2011); invite students to visit during office hours (e.g., send a standard letter or email to each student), schedule appointments for face-to-face meetings and online meetings; encourage use of college services to improve chances of success; support student interest not aligned with college success but life success, co-develop assignments with students that involve a class project where all can contribute; allow students the opportunity to hand one assignment in late without penalty; and provide opportunities for students to support and assist each other throughout the semester. Enacting an ethic of care in our teaching can have a profound impact on student success.

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Everything I Know About Teaching I Learned From Jazz

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Abstract

The instant availability of information has changed the paradigm of teaching. Whereas at one time teaching and learning was information being passed, memorized, and repeated, students can now find their own knowledge. Learning now consists of using information in creative ways and requires a shift in how students are taught. This is quite similar to what occurred in music over a hundred years ago when jazz was introduced to the culture. Music moved from musicians playing what the composer wrote, to creating their own music within a structure. This shift is an apt metaphor for the changes being felt in twenty-first century teaching and learning. The processes of learning and creating jazz provide a way to illustrate new teaching methods that allow students to discover new knowledge through their own creative interests and to develop self-efficacy with the material.

Keywords: Teaching, metacognitive, learning.

"The only thing that interferes with my learning is my education." Albert Einstein

Most of us in higher education know our subject matter. We spend years reading in dark corners of libraries, searching the internet for obscure bits of information, and many lonely hours writing up our ideas. We have juries of peers verifying what we know. Knowing is usually not our problem. Teaching, however, is something for which we are given very little guidance—an afterthought for our graduate programs. After all, if we repeat back what we know, others will know too.

I was born and raised in New Orleans. While I am not a musician, you cannot grow up in this city without being affected by the music that permeates the air. It is the soundtrack that plays in our heads. It occurred to me one day while sitting in one of my favorite New Orleans jazz clubs that everything I know about teaching I learned from Jazz.

Jazz—America’s first original art form—confused the classical music crowd when it began to emerge in New Orleans in the early 1900s. It was spontaneous, improvisational, and sexy. It was a product of the musicians, rather than the composer and conductor. It was unabashedly multi-cultural and a great example of what can come about when cultures come together. But for all of its wonderful musical qualities, it was maligned by

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proper society in New Orleans. A 1917 article in the local paper, the Times-Picayune, regarding New Orleans being the birthplace of jazz declares,

“We do not recognize the honor of parenthood, but with a story in circulation it behooves us to be the last to accept the atrocity in polite society, and where it has crept in we should make it a point of civic honor to suppress it. Its musical value is nil, and its possibilities of harm are great” (Rose, 1975, p. 107).

Using jazz as a guide for teaching may also be shunned by the “polite society” of higher education pedagogy, yet, buried in the process of creating jazz is everything we need to know about teaching and learning.

Teaching and learning necessitates cognitive, emotional, and meta-cognitive skill building in which students learn to know about knowing (Kolb & Kolb, 2009; Tanner, 2012). With readily available knowledge and information, students can go beyond memorization of facts to discovery and creation. In fact, 21st century learning must go beyond memorization and “teaching to the test” as fields evolve at a faster pace requiring students to keep up with new trends and information. Twenty-first century students, like 20th century jazz musicians, will need multiple skills to develop new ideas or risk becoming obsolete at a young age. In response, professors will also have to make changes in their teaching.

Classes, whether directly or indirectly, will have to convey not only learning, but the process of learning. Students impacted by the process as well as the content become motivated to learn more because they have the tools to learn more. Knowing the process of learning allows the learner to use information to create new learning or critical thinking strategies to deal with a problem. This changes the role of the professor from the “composer” to the “arranger” of the class. Likewise, assessing outcomes shifts from knowledge of content to use of content—how students play and use what is presented to them.

Jazz, and learning jazz, is also cognitive, emotional, and meta-cognitive. Players understand that there is a chord structure and a melody, and there is also improvisation. The chord structure and melody give the tune a frame. It is in the improvisation that learning takes place for the individual player. They use what they have learned to learn more. Subsequently, others learn from that player. While improvisation is used at times in other music forms, it is most pronounced in jazz.

Discoveries in neuroscience revealing the biological processes of learning are shaping both our ways of knowing and the new ways in which knowledge is being created. These developments are no more evident than in the fields of science, where the shift toward learning for understanding, application, integration and discovery is pronounced (Roehr, 2012; Brewer & Smith, 2009). Through work funded by the Teagle Foundation, my study of teaching and learning has been informed by both the learning sciences and through active cultivation of evidence-based practice. Here is what I have learned about teaching and learning from the lens of jazz.
Start and End With the Head

In jazz, musicians start and end with what they call a “head”—the initial chord structure and melody that all play together before they go off into their solos. The musicians establish the tune and play close to the melody line and chord structure they read from the one page chart. After the head is played, each musician typically takes a turn—a solo. Improvisation is encouraged and stretches the music into unknown areas, and thus new learning for the player. Other players add accent notes while the drum and the bass keep the beat and rhythm to support the soloist. Jazz tunes are seldom played the same way twice (Ciorba, & Russell, 2014).

Yet the musician must stay within the rules—playing in the correct key and notes within the scale with the occasional grace note. The combinations are endless and take the musicians and listeners to new places within the music’s structure. Sometimes it gets messy, and sometimes it gets downright hard to listen to when the musician tries out a new combination. When each have played their unique solo, the band joins back together to again play the head—that original tune that gave the song its structure and purpose. The head played at the end gives coherence to the song.

A good class also starts with the head—here is what we are going to learn about today; here is what is known about this topic thus far from the research. The professor can then give an assignment to the student or the group to use the information in creative ways that assist in new learning or discovery. The learners experiment with the information. They stretch it into new places, play with it and take chances. When learners play with the information, it sticks in their minds in ways different from simple memorization. Not only is the material remembered, but the learner now has a new way to learn. Through a process neuroscientists call “consolidation” and “re-consolidation”, new neural pathways are created and the learner has less fear of charting now familiar territory the next time (Alberini, 2013; Schiller et al., 2010). What seemed daunting and unobtainable becomes common as the brain learns new material and new ways of learning. The new learning becomes second nature, and the learner can take next steps because of the confidence built from previous learning.

Play in the Right Key

Every class has a personality, as does each jazz tune. In jazz, to play with the other personalities in the band, you have to play in the same key to sound right to the ear. If someone plays in the wrong key, the tune sounds discordant and is difficult on the ears. When we approach a class in the wrong key for the learners, what we say sounds discordant, and the class does not go well. Sometimes there are those in the group who are not familiar with a certain key. In that case, the band leader may consider changing the key, which can mean helping the class adjust to the teacher, or the teacher adjust to the class. This does not mean dumbing down the class; it means working with the class you have—play the same song in a different key.
One seldom knows the personality of a class until several weeks into the semester. Some classes are talkative while some are quiet. Some classes are smarter than others, and some classes are more emotional than logical. Classes are essentially groups and often the professor has little control over the participation level of the students (Fassinger, 1997). Overly quiet or overly chatty classes can be frustrating to the professor. Like a parent and child, “goodness of fit”—the compatibility of a class temperament with the environment created by the professor—often determines the outcome of the class. Parenting experts often classify children’s temperaments as easy, difficult, or slow to warm up (Thomas & Chess, 1977). Certainly these three categories can describe the personality traits of many classes.

In a good jazz jam, the band adjusts to the players, but at the same time pushes the weaker players to a next new level. No one is made to feel embarrassed if he or she is working to their highest level, plus a little more. The band has an awareness of all of the other players and their level of play, and the experienced players remember that they once played at that level too. The classroom, like the jazz jam, can be designed to be a nurturing environment that appreciates the present level of knowledge, and pushes the student to the next level. In essence, the faculty and students co-construct an environment that promotes learning and communication between members based on personality and ability (Sidelinger & Booth-Butterfield, 2010; Kimball, 2011). As the class progresses, they can take on more difficult material, change the key and become more proficient players.

**Let Others Play**

As young jazz players learn the language of jazz, they build confidence in their knowledge of their instrument and playing in a group. They have learned through their successes and flops how far they can take their instrument and still stay within the set tempo and tone. They develop what Bandura (1997) called “self-efficacy”—the belief that they have the capacity to perform a designated task.

A good class is not about the teacher as much as it is about the learner. Certainly the teacher must set the tempo and tone of the class, but the real learning occurs when students have a chance to play. When the teacher gives the student room to “play” with an idea or task, the student develops self-efficacy. Ownership in an idea or task inspires students to participate and master a topic (Gibson, 2011).

Group work, debates, lab work, one-minute papers, flipped classrooms are all metacognitive teaching techniques that allow students to play with the material. As students master the material, they move forward to master the next level of material, as opposed to hearing a lecture and memorizing it for an exam. For example, delivering a short history lecture on a topic then teaching students how to do primary research to produce their own work on that subject is more instructive and inspiring than the traditional “sage on the stage” style lecture/assessment format (Jafari, 2014; Chilwant, 2012; Mason, Shuman, & Cook, 2013).
Be a Witness to Creativity

Jazz musicians love to see others play well. Solos are often met with nods of appreciation by other musicians as each take a turn to impress the other with their impromptu riffs. The other musicians maintain their supportive roles by keeping the rhythm while the soloist creates something new (Monson, 1996). A good classroom is supportive of new ideas.

In classic models of teaching, the professor dictates what needs to be learned. Through course lectures, readings, and test, information is delivered and then assessed to make sure the student learned what was required. Meta-cognitive learning allows for creativity and discovery. Of course, this sort of self-directed learning needs to be done within the context of established course objectives (Gibson, 2011), but students in a supportive class setting and given the right supporting material will be interested in creating and discovering more about the topic. They will become the drivers of their own education and will think of themselves as “learners” rather than “students”.

Jazz is often thought of as a group of people having a conversation in a common language through their instruments. Often in jazz sessions, one will hear the audience, and even the players, mutter “Oh Yeah!” or “Play it!” This is a way of saying, “I like that!” or “Good Job!” It is a witnessing of the effort and the delivery of the “words” created by the musician and the instrument (Monson, 1996). Of course, not every effort is worthy of a trophy or applause, and a player can usually tell if the effort fell short by the lack of applause, or even worse, tepid applause. It is a signal to try something different next time. Classrooms can be that way with continuous feedback flowing among students, instructor and the group as a whole.

Take Chances

Every good jazz musician has many tales of embarrassment—playing in the wrong key, missing notes, or a solo that just went bad. Sometimes the best learning experiences are mistakes (Healy, 2014, Linquist, 1999, Mysliwiec, 2005). Rather than ridiculing the mistake, as too often happens in classrooms and essentially shuts down participation, experienced jazz musicians appreciate the attempt, learn from the mistake, and move forward keeping the song moving and leaving the learner with dignity and a new learning experience. Jazz musicians focus on the process of creating jazz rather than the results. Results will come when the process is learned and mastered. This musical learning method emphasizes creative thinking over rational/logical thinking. To do things right, the musician also has to know how to do things wrong.

Constructivist education models work in a similar way (Milbrandt, Felts, Richards & Abghari, 2004). While the professor may know the answer, students are given assignments and tasks that allow them to discover the answer and beyond. In this model of teaching, professors set up the lesson for the day—or provide the chart—and the students are then encouraged to solo or play in small groups to discover the answers and new learning experiences. This leads to what Freedman (2003) suggests, “the mind creates
knowledge in response to the world, as it creates and recreates itself” (p. 80). Students taking chances with the material changes their perspective, expands their way of thinking, and allows them to be open to new ideas and learning experiences (Harrison, 2014). These students allow themselves to be changed by new knowledge and experiences rather than being stuck in their ideas.

### Make It Joyous or Make It Sad,
**But For God Sake, Play with Emotion**

For a period of time in old New Orleans, jazz was used to arouse and excite men who were visiting the brothels in Storyville. The thought was the faster they played, the more excited they would become, so they would “jazz it up”. Still today, most good tunes in New Orleans clubs end on a high note and a great cheer from the crowd. Certainly we are not in the classroom to arouse, but we should be there to excite our students about learning. A good classroom has a sense of excitement and zest that is determined by the excitement of the professor for the topic. As Micciche (2007) states “Emotion matters to teachers because the classroom is alive with bodies, hearts, and selves, and because learning is joyous, exciting, frightening, risky, passionate, boring, disappointing, and enraging” (p. 105).

In jazz, that excitement is enhanced when the performer is able to “swing” the music. Swing is an elusive term that is more a felt experience than a defined term, but a listener can easily tell if a tune has swing from one that does not (Promane, 2009). A tune without swing is dry and boring. A tune with swing has toes tapping, bodies swaying, and heads nodding. The audience becomes one with the band. In a good classroom, students are engaged because the professor is excited about the topic, engaged in the lecture and uses his or her voice in a way that helps the students stay with the lecture. Teacher enthusiasm is directly related to positive course evaluations (Barth, 2008). Teacher enthusiasm encourages students to become more involved in the learning process (Patrick, Hisley & Kempler, 2000).

How does one create this excitement in their classes? Pay attention to the audience, take control, teach things you love, and do it with enthusiasm. Step away from the lectern and talk with students. Walk around the classroom and enjoy the vibe of students learning and always keep in mind that learning is an emotional experience as well as a cognitive experience. As much as teachers would like to think that students will remember their every word, it is more likely they will remember the feel of the classroom and the connection with their learning process; create an atmosphere for learning and the learning will occur (Keller, Goetz, Becker, Morger, & Hensley, 2014).

### Jazz as a Model of Teaching

In this article, I have attempted to illustrate that jazz, and the process of creating jazz, may be an effective teaching analogy for teaching in our university classrooms. Jazz is creative, meta-cognitive, cognitive, relational, and constructivist by nature (Biasutti,
Jazz musicians must have an understanding of music theory and know the rules of jazz which makes this part of their learning a cognitive process. The process of creating jazz improvisation requires the musician to think beyond the set melody and chord structure, thus making this part meta-cognitive. Both are important to the song and this process lays down new neural pathways and enhances critical and creative thinking as players learn from taking chances. Where a classical musician may have to practice a piece with others several times to get the tune right and get the approval of the conductor, it is not uncommon for a group of musicians in a jazz jam to meet for the first time and play a tune they may have heard only a few times and make new music from one page of written notes and chords. Perfection is not the goal in jazz. New ideas based on old ideas that sound good to the listener and players is what is most important. That is the creative process.

While those who may not understand jazz may see this musical form as old and outdated, jazz musicians would argue that jazz is always fresh and new because it is seldom played the same way twice. New ideas are created each time a group plays. It can also be argued as musicians perfected one form of jazz they created other forms to move the music forward. From those early mostly African-American musicians gathered in New Orleans who consciously decided that music can be made spontaneously without sheet music, to the swing era, to bebop, hard bop, and today's modern jazz sounds, the music has constantly changed and evolved toward greater complexity.

When we look at progress in the multitude of academic fields, we can see a similar process. Creating new complexity in music, as well as academia, is initially controversial and often rejected by the mainstream. Eventually the idea becomes an interesting thought and gathers adherents before becoming accepted by the mainstream, and the next idea, or paradigm shift (Kuhn, 1962), is introduced and the pattern is repeated. In all academic fields, there are truths that need to be taught as the cornerstone of the field of study. There are cognitive facts that hold up the discipline. These are the charts that hold up the song. Giving students opportunities to play with the knowledge creates new knowledge (Gruber & Barron, 2011). All new knowledge and paradigm shifts occur because someone stepped outside what was known.

Good teaching and effective long-term learning is more than memorization of facts. While most fields require a knowledge of facts—the Periodic Table comes to mind—it is more important that students know what to do with those facts. That would best come through practice and playing with information. How jazz is learned and played is a good model for most teaching situations. Allowing students to play with their own ideas within the structure of the day’s lesson provides the student the opportunity to develop an in-depth understanding of the material. As they make mistakes and learn from them, students become more competent and develop self-efficacy (Moser, Schroder, Heeter, Moran, & Lee, 2011). And that is good teaching by any measure.
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References


CSI: An Engaging Online Classroom Introduction Activity

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Abstract

All course activities should be aimed at moving students towards the learning outcomes, including class introductions. This article provides detailed instructions for implementing an online Class Session Introductions (CSI) activity that immediately engages students with their peers, the content and the instructor. The activity may be useful to instructors when creating sub-groups or peer teams and differentiating learning activities in future course activities and assignments. Additionally, the article focuses on how the CSI activity might be used to assess students’ prior content knowledge, align students’ expectations with course outcomes and identify students’ learning styles and dominate intelligence; all of which can be used to enhance the e-learning experience for students. Examples and illustrations are also included.

Keywords: Student engagement, distance education, online teaching, student involvement, instructional design.

For many higher education students and faculty, attending the first class session can be an exciting and exhilarating, yet uncomfortable experience. Dorn (1987) refers to the first class session of the term as an “encounter among strangers” (p. 103). Students wonder if anyone they know is also taking the course. They worry about the instructor’s expectations and personality. They may be concerned about their preparedness for the assignments and exams. Such anxiety in face-to-face courses is often reduced during introductions, where each student takes a few moments to share information such as his or her name, hometown and college major with the instructor and their classmates. However, 32 percent of all higher education students enroll in at least one online course in their academic careers (Allen & Seaman, 2013), they may experience similar “first day of class” anxiety, as well. So, what can we, as instructors, do when face-to-face introductions are out of the questions?

Research (Dixson, 2010; Korobova & Starobin, 2015; Tofade, Elsner, & Haines, 2013) supports that strategies used to welcome students to the online course environment may go well beyond simply establishing a level of comfort and influence students’ levels of engagement in all aspects of the class. The Class Session Introductions (CSI) activity includes a series of divergent questions that allow students to share their initial thoughts.

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about the course. Student responses are used to introduce themself, while providing information that may be used to create differentiated instructional materials, assignments and assessments. The activity also helps to further ensure that diversity and privacy perimeters of various ethnic groups are protected. Another component of the CSI activity relates to helping students develop an awareness of their own learning styles and those of their classmates.

This article provides detailed instructions for implementing the CSI activity in an online course. It focuses on how the CSI activity might be used as a class introduction activity to assess students’ prior content knowledge, align students’ expectations with course outcomes and identify students’ learning styles; all of which can be used to enhance the e-learning experience for students.

CSI Design Framework

In face-to-face classrooms, students share information about one another through the traditional introduction icebreakers, informal conversations and nonverbal cues (Beaudouin-Lafon, 1994). In addition to learning factual information about one another, students use the exchanges to infer information about disposition and commitment (Spring & Vathanophas, 2003) and may also use the introductions to set a foundation for future class interactions between themselves, as learners. Although these specific types of interactions are often not feasible in online asynchronous courses, there are alternative methods that can be used to accomplish the same goals.

The CSI activity requires students to reflect and then respond to a series of open-ended questions about their thoughts and perceptions regarding the course. Their responses are shared with their classmates through an online discussion board forum. The activity is an example of Active Learning, defined as “instructional activities involving students in doing things and thinking about what they are doing” (Bonwell & Eison, 1991, p. 2). Active learning plays a key role in the theory of student involvement (Astin, 1999), which posits that the level of student interaction with their peers is an important factor in their success in college.

In addition, the CSI activity provides all class members with the same information about each student. This awareness of their classmates contributes to Group Awareness, which Jongsawat and Premchaiswadi broadly defined as “consciousness and information about various aspects of the group and its members” (2014, p. 819). CSI activity responses provide the instructor with specific learner characteristics that may later be used in the formation of online learning communities or determine the membership of small groups within the course.

CSI Activity Implementation

The CSI activity immediately engages and focuses students on their goals and expectations from the course by using the Graffiti Needs Assessment questioning strategy (Gozza, 1993) as a template. The CSI activity is a series of divergent questions based upon the
Concerns-Based Adoption model (Hord, 1987) and includes questions framed around Fuller’s (1969) Self-Concern, Task and Impact inquiries. The CSI activity seeks to ignite student curiosity regarding course content that may not be interesting to them. Furthermore, CSI questions seek to encourage students to reflect upon their thoughts about the course outcomes and to stimulate dialog with their classmates in the feedback segment of the activity (Tofade et al., 2013). Below, each question type is explained, in turn.

**CSI Self-Concern Questions**

While new students may experience anxiety, self-concern question attempts to redirect students to the learning outcomes for the course. The question may require them to revisit the course syllabus and review each stated outcome to reflect upon their level of related interest. Through this exploration, students may find their ‘what’s-in-it-for-me’ resolution. An example of a CSI Self-Concern question is: Which of the course’s learning outcomes are of most interest to you and why?

**CSI Task Questions**

CSI Task questions prompt students to reflect upon previous personal and educational experiences to determine what preparation they may have had related to the course content. They provide an opportunity for students to assess their own related knowledge and skills. This self-assessment provides information for the instructor and their classmates related to their levels of prior knowledge. CSI Task question responses can also provide evidence of gaps in students’ prior knowledge related to the content. Instructors may use Task question responses to develop course materials to accommodate specific levels of knowledge and/or skills. For example, students with limited capabilities may require supplemental materials and resources. Or, for those students with broader backgrounds may be further challenged with expanded instructional opportunities. An example of a CSI Task question is: What preparation have you had as a foundation for this course?

**CSI Impact Questions**

CSI Impact questions prompt students to envision how the new knowledge and experiences gained in the course might influence their lives. Reflective responses provide an opportunity for students to identify personal benefits from the course. Students may begin to think of things they will be able to know or be able to do that are presently not possible. Identifying how the new knowledge or skill may positively impact their world may generate excitement and intrinsic motivation for participating in future course activities. An example of a CSI Impact question: What influence do you believe this course will have on your future?

**CSI LS/MI Inquiry**

The CSI LS/MI Inquiry relates to learning styles and multiple intelligence assessments. Students complete a web-based assessment to provide them with information regarding their dominate learning modality and/or intelligence. Instructors may be able to use this
information to fine-tune the course to address specific learner profiles. When combined with learning taxonomies, information from a multiple intelligence assessment helps the instructor to create an exciting and engaging course (Kuhn, 2008). Course assignments and activities that are tailored to specific learning modalities have a positive impact on student success in college classrooms (McFarlane, 2011; Narayanan, 2011; Zajac, 2009) an advantage that can logically be extended to the online environment. A listing of related web-based assessments can be found in the Supplemental Materials section at the end of the article.

**CSI Discussion Board Forum**

Though CSI activities can be presented in many ways and via a variety of online platforms, the CSI activity example, that is presented here, is a discussion board forum within the Blackboard Learning Management System, version 9.1. Research (Brown, 2014; Dalelio, 2013; Davies & Graff, 2005) indicates that learners use higher order thinking skills in online discussion board activities, and that this type of thinking ultimately impacts course achievement in positive ways. Learning environments that optimize opportunities for students to interact with their peers, the instructor and the content, such as discussion boards, provide excellent platforms for student engagement.

To begin, instructors create a new discussion board forum and include the instructions, directions and model responses in the narrative. Putting all of the pertinent information in one, central location helps students, particularly those who are new to online courses, access support resources, including handouts, videos, examples and illustrations, in close proximity to where they may be needed. Next, students enter their responses as New Threads, each branching off from the forum. Then, to further encourage peer-to-peer interaction, students are required to review and share reactions to peer entries as Reply postings in the Discussion Forum. This aspect of the CSI activity provides structure as described for social interaction, which is foundational to collaborative learning in online courses (Curtis & Lawson, 2001).

The specific format of the CSI activity can vary widely. In this example, students are asked to create electronic trading cards to share CSI responses. The National Council for Teachers of English free Web 2.0 tool can be used for this purpose (http://www.readwritethink.org/files/resources/interactives/trading_cards_2/). The cards are created online and downloaded as PDF files. Then, students upload and post their cards as their discussion board new thread entry. As an added bonus, monitoring how difficult different students find this task can give the instructor a glimpse into the technical skills of students within the online course.

**Examples and Illustrations**

Examples of Detailed instructions (Figure 1), illustrations and model responses (Figure 2) are critical at this stage of the online course and will help students complete the CSI activity successfully. Video and written instructions from web-based resources can be hyperlinked to open in new windows. They can provide illustrations for such tasks as
CSI Assignment Directions:
In order for us to learn more about each other, please complete the following Course Session Introduction (CSI) activity. Click to view a model response: Jamie Smith’s Trading Card

1. Draft responses to the following CSI questions:
   - **CSI Self-Concern Question 1**: Which of the course’s learning outcomes are of most interest to you and why?
   - **CSI Task Question 2**: What preparation have you had as a foundation for this course?
   - **CSI Impact Question 3**: What influence do you believe this course will have on your future?
   - **CSI LS/MI Inquiry**: Please click [here](#) to take the Multiple Intelligence Assessment. It will open in a new browser window. Then, share your strengths and explain why you agree or disagree and share examples or illustrations.

2. Click to view the "how to" create a Trading Card video.

3. Create a Trading Card to contain your responses to the CSI questions. The url is: [http://www.readwritethink.org/files/resources/interactives/trading_cards_2/](http://www.readwritethink.org/files/resources/interactives/trading_cards_2/)

4. Save the Trading Card (AS A PDF) to your computer.

5. Upload your TRADING CARD as a NEW THREAD in the related CSI discussion board forum. Click [here](#) for instruction on creating a new thread.

6. Entitle the thread:
   YOUR LAST NAME: Trading Card
   Example - STEPHENS: Trading Card
   For other examples of how electronic TRADING CARDS can be used in teaching, click [here](#) and [here](#).

7. Share your reactions to at least four (4) of your classmates’ Trading Cards. There are no parameters. Please simply post as a REPLY.

*Bolded words and phrases indicate hyperlinks provided for students to tutorials, examples and other online activities.*

**Figure 1. Instructions for students to complete the CSI Activity including the trading cards component. The Supplemental Materials section contains the URL locations, as indicated with footnote notations above, of all the web resources listed.**

Creating a new thread and access to web-based resources such as the multiple intelligence assessment or the trading card website.

Students benefit from model responses or illustrations (Figure 2) that depict a product...
that satisfies the instructor’s expectations. Such examples provide a visual roadmap for students to follow. If you have done this activity before, you can include an exemplar model from a previous student (with permission, of course). If not, you can create one, yourself. In this response, the student included an optional response category, Career Biography, which generated much interest from his classmates. And, he chose to use an avatar instead of sharing a photo of himself. Avatars can be used in the trading card to ensure privacy. As expected (Jahng, 2012; Jahng, Nielsen, & Chan, 2010), the reactions posted by their peers for this assignment are most often positive (see Figure 3 for example student responses to the example in Figure 2).

To further increase peer-to-peer engagement, the instructor might create a Scavenger hunt activity. A quiz containing clues from the CSI responses can be created and given to the online class. Then, students would search the CSI response postings or trading cards to match the clue and student. This segment of the assignment would help ensure all students are ‘introduced’.
• Let me just start by saying, great picture! Also, I think it's great that you are working in adult education for the Department of Corrections. Teaching adults who truly want to make a change is an incredible service to give. If this department is supposed to be used to rehabilitate, then it's good to know that they are actually given the chance to do that. Good luck this semester!

• Hello Peter! We have 2/3 strengths in common (music and social). With your previous work experience, I am looking forward to hearing your thoughts on the material in this course. I am just starting my classroom experience so I've got a ways to go and always appreciate learning from others.

• I think that is amazing that you teach in the department of corrections! I can imagine it takes a lot of patience and determination! It is important that there are people willing to show the inmates that they are still worth someone taking their time to teach them.

• Hi there! What an interesting area of work experience that you have! That's definitely something I hope to hear more about over the course of this semester. I think that you can give our PLC a viewpoint that I know I personally am interested to learn more about. I also attended WMU for a while. I lived in Valley I, and I absolutely loved it there! Nice getting to know you!

• Hi Peter :-) . I used to be a Title I Tutor for kindergarten and 1st grade students. I loved that job! Unfortunately the funding was cut :-(. Your current job teaching in corrections sounds very interesting. I look forward to hearing more about it throughout this class.

• Hi Peter. Great card. I'm always interested in finding out what draws people to their line of work - what interested you in teaching in the Department of Corrections? I hadn't thought about the obstacles in teaching in that situation, but now can imagine they must be numerous.

Figure 3. Actual student discussion board postings as reactions to the responses posted by the creator of the illustration in Figure 2.

Conclusion

Every online course activity should be geared towards supporting students to reach course outcomes, including class introductions. As an introductory assignment, student success on the CSI activity may help establish a foundation for success in other course activities. By incorporating the CSI activity among the initial assignments, online students may be better prepared for future course activities that requires interaction between them and their peers, the instructor and the content. CSI response information may be useful to the instructor to create sub-groups or peer teams and to differentiate learning activities in upcoming course activities and assignments. Finally, there may be no need for students to be awarded credit, because the CSI activity is similar to student introductions or icebreakers conducted in face-to-face classes, which are rarely graded assignments.
References


**Supplemental Materials**

i Various web-based learning styles and multiple intelligence assessments -
   - http://www.edutopia.org/multiple-intelligences-assessment
   - http://www.personal.psu.edu/bxb11/LSI/LSI.htm
   - https://www.engr.ncsu.edu/learningstyles/ilsweb.html
   - http://www.queendom.com/tests/access_page/index.htm?idRegTest=3104

ii Creating a Trading Card Video: https://www.youtube.com/watch?v=ef0X5WiDszQ

iii An example of the benefits of the trading card activity: http://www.readwritethink.org/parent-afterschool-resources/activities-projects/create-trading-cards-favorite-30171.html

iv An example of the benefits of the trading card activity: http://www.readwritethink.org/classroom-resources/student-interactives/trading-card-creator-30056.html that satisfies the instructor’s expectations. Such examples provide a visual roadmap for students to follow. If you have done this activity before, you can include an exemplar model from a previous student (with permission, of course). If not, you can create one,
Assessment Matters: Enriching Design Education Through Online Peer Critique

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Abstract

The Internet has enabled us to expand how and where we learn, and in many cases, when. In an era where the classroom has aggrandized beyond four walls, implementing online assessment strategies has never been easier. Online technology has endorsed exciting shifts in pedagogical practice for design education, generating unique opportunities to connect students with one another to critique and assess the development of their work. This paper presents three ways in which the authors have implemented the use of online peer assessment to enrich their design courses and discusses how these activities enhance the learning experience.

Keywords: Assessment, assessment strategies, design education, online peer critique.

The role of online peer assessment in design education has become of particular interest in recent years as a strategy for enhancing the quality of the learning process, fostering the development of critical thinking, and increasing learner autonomy (Falchikov & Goldfinch, 2000). Peer assessment refers to a process during which students consider the quality of another’s work or performance, judge the extent to which it reflects targeted goals or criteria, and make suggestions for revision (Topping, 2013). Peer assessment is characterized as task specific and is based on the quality of the peer’s work rather than a student’s abilities or personal qualities. The peers can be enrolled in the same or different course, of differing ability levels, and can be randomly assigned, instructor assigned, or self-chosen (Lui & Andrade, 2014).

In a design studio, students are thoughtful and insightful critics. They are familiar with the intricacies of assigned projects (having tried to work out their own solutions) and can contribute a variety of viewpoints to their peers’ designs. For online assessment to be used effectively in a design studio, the methods of assessment must be structured and employed in a way that promotes design development, and bridges the gap from theory to practice. The advantages of providing online peer assessment are five-fold. First, several online interfaces support peer assessment activities that mimic social media and conveniently allow students to participate anonymously, thus increasing the willingness to engage. Second, online assessments that are comment-based provide a platform by which students can foster and exercise their use of design vocabulary. As students are chal-

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lenged to use vocabulary to critique their peers appropriately, they improve their communication skills thus narrowing the possibility of ambiguous interpretations in how they describe their own work. This builds student confidence. Third, online assessments can be networked to reach a broad audience of peers, yielding more diverse feedback and expanding student understanding for how the work responds to a variety of factors and constraints. This supports the development of their critical thinking skills and results in more meaningful design solutions. Fourth, online peer assessments can be structured to simulate professional-like discussions about projects. This fosters an academic design community that supports the transition from program to practice. Finally, online peer assessments provide design educators with the unique opportunity to archive and learn from student discussions, and to use the gained knowledge to improve the course.

**Implementing Online Peer Assessment**

The latitude by which we rely on the Internet has enabled us to expand how and where we learn, and in many cases, when. With robust online connections as convenient and accessible as our cell phones, the classroom has aggrandized beyond four walls. Designing online experiences as an instructor has never been easier, especially with the support of streamlined programs that package the technology into one platform. Moodle has proven to be a convenient and reliable hub in hosting a variety of outside online resources. Some of these include the Rogo e-assessment system to construct online testing, Xerte Online Toolkits to create online learning materials, Qualtrics to generate online surveys, and VoiceThread to facilitate online discussions. Moodle itself features a variety of built-in tools and activities that can be used to implement an online component for any University course: grade tools, forums, surveys, tools to collect and disseminate course content, test and quiz generators, and a variety of other features designed to customize the digital exchange of academic information.

Design lends itself as an underrepresented, yet fitting content area to explore these online resources, especially for the use of facilitating peer critique. Online platforms can be personalized to control how students connect to each other and their instructor. This flexibility makes it especially convenient to implement into a project-based course, where student learning is often determined by assessing subjective and perspicacious outcomes; the depth of the design process, the development of an idea, and the overall success and communication of a design solution.

Implementing effective peer assessment requires planning activities that benefit the learners. This involves matching the desired outcome with an appropriate evaluation method. As online methods vary in a number of ways, it is important to consider how students will provide feedback and to whom, how the activities will be managed and moderated, and how the data will be collected and used. Furthermore, online assessments often involve the coordination of anonymous peer groups, which require further consideration. Preserving anonymity to relieve social pressure is essential in maintaining the reliability of the peer assessment process. Zhao (1998) found that maintaining anonymity between the reviewer and the author encourages students to provide more suggestions and increases the usefulness and authenticity of their feedback.
Examples of Implementing Online Peer Assessment in Design Education

One of the activities that design instructors struggle with the most is getting students to provide thoughtful and detailed feedback of their fellow students’ work. According to Brown (2014), the peer assessment process is challenging for students because:

- Many of them are new to the concepts, theories, and language of design, so they experience difficulty knowing what to say or how to say it.
- They don’t want to hurt their peer’s feelings, so they are weary of expressing dislike for another’s design choices.
- They are terrified of what others may say about their work, so they refrain from saying anything about their peer’s work.
- Some simply do not care or have an opinion.

To combat these barriers and to engage students in dynamic discussions about design, the authors have outlined three distinct online assessment strategies that enhance the learning experience for design students. While the primary goal of each strategy is to improve the quality of the assessment by requiring students to use specific guidelines, a secondary goal is to encourage knowledge acquisition during the process.

Anonymous Assessments: Peer Assessments Using an Online Survey

Online surveys are a convenient and straightforward strategy for conducting peer assessment. The surveys can be customized to meet the needs of any question type and can include a visual component. Using Moodle, the authors customized a survey for a second-year interior design studio featuring digital scans of each student’s hand-renderings (see Figure 1).

The purpose of the survey was to solicit students to anonymously view the work of their peers, and provide feedback for improvement. The survey was constructed by uploading a chronological gallery of bi-weekly hand-renderings, visually depicting the growth of each student’s progress. Through a series of questions, students were asked to select drawings from the sequence that best demonstrated proficiency with a variety of competencies (i.e. line work, marker technique, etc.). A comment box allowed students to give feedback by writing suggestions for how to further develop the final hand-rendering. As an incentive to complete the survey, participating students were able to retrieve live survey results directly from the course Moodle site. It is interesting to note that while participation in the survey was voluntary with no grade attached, 70% of the students in the course took part.

As shown in Figure 1, participating students were able to convey successfully, in writing, their recommendations for improvement. Their comments were rich in design vocabulary, honest, and straightforward. Additionally, the activity revealed those students lacking design discourse and those struggling to apply appropriate terminology. The survey was surprisingly useful.
Students reported that they appreciated the anonymity of the survey and that the experience of assessing someone else’s work crystallized their understanding of the grading criteria. They also enjoyed seeing the rendering techniques that other students used.
Evaluating peers’ work exposed students to rendering solutions that they otherwise would likely not see. Overall, the authors feel that online surveys have proven to be an exciting method of peer evaluation that enhances design education.

**Casual Critiques: Peer Assessment Using A Discussion Space**

In an era of social media, it is not hard to believe that social platforms have found a place in education. Forums, blogs, and course-devoted accounts with Facebook, YouTube, and Instagram have all become common practice. Such platforms promote a dynamic and frequent exchange of ideas, the very ingredients integral to effective design education. To explore the value of such platforms in the context of online peer assessments, the authors integrated VoiceThread into their first-year interior design studio.

VoiceThread is a moderately social and highly interactive program that features user-generated, multimedia slide shows that hold images, documents, and videos. To create a “thread,” a user uploads the media and then invites thread participants to exchange comments. Comments are exchanged by typing text, or by recording voice or video messages. An additional tool available to those recording comments is Doodle. The Doodle tool allows a participant to draw directly on the uploaded images by using a mouse. The drawings are visible to anyone who has access to the thread. The threads can later be embedded as links in web sites and exported as digital movie files. With VoiceThread, group conversations can be collected and shared in one place from anywhere in the world. Participants need only an email account and the Internet to be involved. As an added convenience, the program is operable as a smartphone application.

The authors have found VoiceThread to be invaluable. Aside from single studio use, the authors have used VoiceThread as an assessment tool across multiple sections of an identical course. In critiquing the work of peers, the online technology has allowed students to create their own threads and upload images of their design work. Once uploaded, comments can be solicited and posted via text, audio, or video. Because comments become visible to all participants of a thread, additional features allow a thread’s owner the ability to monitor and moderate the activity, allowing for comments to be rearranged, hidden, or removed (see Figure 2).

Design students have enjoyed the integration of VoiceThread and have adopted the program as a common method for exchanging feedback. Students find the online tool to be intuitive and relatively easy-to-manipulate. They mention that the program provides a fun way to discuss the opportunities and challenges of their work and that it is an efficient way of communicating with each other and their instructor. One student praised the activity by sharing, “This online program allows us to view work of other students across different sections and is allowing us to get feedback out of class without wasting valuable class time.”

Both the students and the authors have found that using VoiceThread for online peer assessment enhances the design studio experience in three distinct ways. First, using this tool generates a unique extension of the traditional design studio and allows students an
autonomous method to engage in reviewing each other’s work, outside of class and on their own schedule. Second, VoiceThread allows students to exchange feedback without an expiration date. This presents a unique, longitudinal model of peer assessment, useful for documenting student development. Student thoughts, learning, and work are archived in a single thread and can be built upon over time, such that a comprehensive thread might contain a collection of work that chronicles the development of any particular skill. Lastly, as an assessment tool, VoiceThread effectively endorses collaboration and participation among students by providing a space to demonstrate the application of knowledge.

**Guided Grading: Peer Assessment Using An Online Interactive Rubric**

For large courses taught exclusively online, providing students with timely, accurate, and meaningful assessment of their work is often a challenge. Peer grading is a successful solution. In peer grading, assessors apply criteria for scoring and evaluating the work of their peers. In addition to reducing instructors’ workloads, peer grading has been found to bring many benefits to student learning, including a sense of ownership and autonomy, increased motivation, and higher-order thinking skills (Luo, Robinson, & Park, 2014).

Therefore, for a large online creative problem-solving course, the authors used the Moodle workshop activity module to develop an interactive rubric. The rubric was designed for a creativity project that challenged students to design and develop experiences that involved “doing something different,” tasking them to think divergently about various simple acts. The project required students to uniquely define a problem, engage others in

**Figure 2. VoiceThread.**

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a public setting, and to design a novel experience. Students were urged to share the development of their ideas, planning, and research on the Moodle forum. The final phase of the project was submitted as either a video or digital presentation. Once the projects were uploaded into Moodle, they were anonymously randomized and allocated for peer review. Each student was assigned three projects to review and received participation points for completing the task. This accounted for a small portion of their project grade. After viewing each project, students were prompted to evaluate the work using the online rubric. The rubric was presented as an interactive chart with embedded buttons for scoring (Figure 3). As an additional measure for providing feedback and to allow students to justify their assessment, students also had the option of leaving written comments.

![ASSESSMENT FORM](image)

**Photo / Video Documentation**
- **No credit**
  - Missing photo / video documentation or unclear.
- **1 point**
  - Limited or poor quality documentation. Files not properly named.
- **2 points**
  - Documentation successfully highlights and activity and supports the narrative. All files are accessible.

**Written Documentation**
- **No credit**
  - Missing written documentation or unclear.
- **1 point**
  - Poorly written with multiple errors, too short, or lacking descriptive elements.
- **2 points**
  - About 200 words describing the idea, preparation, event and conclusion. Few grammatical and spelling errors.

**Planning and Initiation**
- **No credit**
  - Did not initiate the event; did not plan the activity.
- **1 point**
  - Let events determine the DSD; did not plan ahead of time. Lack of engagement.
- **2 points**
  - Developed the idea ahead of time. Made the event happen in person.

**Engagement**
- **No credit**
  - DSD was done private; learner was not engaged with the exercise.
- **1 point**
  - Completed in a semi-public space. Lacking a deeper meaning. Not challenging for the learner.
- **2 points**
  - DSD was as challenging task for the learner, featured novel or unexpected behavior, and was highly public.

**Originality**
- **No credit**
  - Different but not that unusual or surprising.
- **1 point**
  - Different and moderately creative for the learner. Not surprising.
- **2 points**
  - DSD is creative. Inventive, surprising, and specifically different for the learner.

**Written Feedback**

> “Very vivid written documentation. I can tell that you really took this project seriously and spent a lot of time to really listen to what surrounded you. You provided a very clear idea of how this experience affected you. As the person reading your project, I am left with a very clear understanding of what the circumstances were of your experience, and the intricacies of the environment you chose to explore. Really great work, and a super fascinating interpretation of this assignment!”

Figure 3. Online Interactive Rubric.
Students were highly engaged with this method of peer assessment. Engagement was best demonstrated by the use of the optional comment box (see Figure 3). Students provided a wide variety of thoughtful, reflective, and sometimes lengthy feedback. Students reported that although the peer grading was challenging and time-consuming it benefited them to think more critically.

Overall, the authors have found that the rubric was especially fitting for a visually rich project involving a diverse combination of video, imagery, and descriptive text. The workshop module allowed the presentation of any type of file and video link. The online tool helped to normalize the scoring by multiple reviewers. The quality of peer grading and the breadth and depth of the comments were extremely agreeable with the authors’ assessment of the work. The results suggest that incorporating online interactive rubrics with commenting features is a smart strategy to engage students, increase class participation, and to teach more effectively.

Discussion

The experience of implementing these online methods of peer assessment revealed interesting parallels, as well as some unexpected challenges. All three methods resulted in a rich array of original, student-generated feedback; evidence that students are highly capable of reviewing the work of their peers, and that peer assessment is an engaging academic activity. These parallels suggest that design education is enhanced by using online technology as a means to involve students with the process of assessment. This is an exciting arena for instructors and researchers to explore.

While the authors noted parallels between each strategy, they also noted some collective challenges. In every instance, some students chose not to participate. This condition seemed immune to aspects of anonymity (as in the case of survey reviews), the use of a casual interface that mimics social media (VoiceThread critiques), and grade-based incentives (online rubric). The possibilities for why a student may or may not participate in online peer assessment is vast, but perhaps stresses the importance of providing a variety of activity types to respond to the diversity of student needs.

Overall, the authors have found that encouraging students to help each other develop their work not only builds collaboration skills and trust but also leads to deeper understanding and more thoughtful and reflective discussions. Empowering students in this way demonstrates that they can play an important role in the learning process and lends greater legitimacy to their opinion. Plus, when students share their knowledge with others, they educate themselves twice.

In closing, if design educators are to meet the needs of today’s students, they must find ways to acknowledge the role of technology and to implement it as a way to engage them in the learning process. The online peer assessment strategies presented in this paper do that. These strategies are not isolated to design education. They are capable of enhancing any course that encompasses the development of ideas. We see this paper as a step in the process of re-framing what online peer assessment can be, and a proposal for how it can
be taught. With so much to be done and so many avenues to explore, the authors are eager to continue these dialogues.

References


The Best of Both Worlds: 
Exploring Cross-Collaborative Community Engagement

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Abstract

Lauded as a rewarding pedagogical approach, community-engagement can be time-consuming, resource-intensive, and difficult for instructors to manage for effective student learning outcomes. Collaborative teaching can allows instructors working in the same classroom to draw from each others’ expertise and share resources. In this essay, we propose a fruitful approach that brings the benefits of collaborative teaching to community-engagement. Two instructors collaborated to facilitate a community-engaged food justice blog, demonstrating the benefits of combining these modalities. In this essay, we review relevant literature on collaborative teaching and community-engagement, presenting cross-collaborative community engagement as an innovative model for collaboration between instructors in separate courses, allowing instructors to maintain autonomy while working together toward engaged learning.

Keywords: Collaborative teaching, community engagement, service learning, blogs.

Higher education is shifting toward interdisciplinarity, collaboration, and community-based service learning (Bringle & Hatcher, 2000; Kliegl & Weaver, 2014; Mahoney & Brown, 2013; Shibley, 2006). Courses that utilize community engagement strive to apply classroom knowledge to community needs, as well as advance socially relevant causes. Undergraduate courses emphasizing skills, topical content, and foundational disciplinary concepts are well-adapted to community engaged pedagogy. Yet instructors can feel underprepared, or overwhelmed, in planning and implementing community engagement in their courses. Collaborative teaching can be an enlightening experience that, by bringing two instructors into the same classroom to facilitate group learning, can expose teachers and students to multiple perspectives and different subject areas. In light of the tension and competition traditional collaboration can create among teachers (Bettencourt & Weldon, 2010; Ferguson & Wilson, 2011; Plank, 2011), we submit that community engaged learning can be an effective strategy for maintaining strategic and controlled collaboration among instructors in separate courses.

This essay proposes cross-collaborative community engagement as an innovative pedagogical approach. We offer initial reflections on the successful implementation of this

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new approach that combines community engagement with collaborative teaching. Our experience demonstrates the utility of collaborative teaching in mitigating barriers in the facilitation of community-engaged projects, allowing instructors and students to experience the “best of both worlds”: a shared-yet-distinct learning environment while contributing to a joint service project.

**Review of Relevant Literature**

Collaborative teaching and community engagement have been gaining traction in higher education for some time (Harris & Harvey, 2000; McCarthy, 1996; Witte, 2012). Often discussed as service learning, community engagement offers a way to make course content relevant to greater societal issues and provide students with a variety of learning experiences.

Successfully integrating community engagement into a course requires extensive planning and preparation to identify community needs and partners, as well as conceptualize the actual service responsibilities of students (Day & Hurrell, 2012; Heath, 2010; Jenkins & Sheehy, 2012). Throughout the term of the service project, students need supervision and monitoring from the instructor to ensure adequate reciprocity between course content and service tasks. The instructor must also maintain open communication with the community partner(s) for problem-solving and risk management (Heath, 2010). Finally, instructors must have effective forms of assessment, including reflective writing and discussions, for the accomplishment of course learning objectives (Day & Hurrell, 2012; Wilczenski & Coomey, 2007). In short, integrating service-learning into a course can burden faculty with the time needed to plan, implement, and evaluating a community engagement project. Junior faculty, or instructors looking to integrate community engagement for the first time, may be particularly overwhelmed by the labor required for successful project facilitation, and may be dissuaded from including community engagement in their courses (Furco, 2001; Jenkins & Sheehy, 2012).

In light of the logistical challenges and possible barriers of community engagement, scholars acknowledge the usefulness of collaboration between project stakeholders (including community partners, students, and instructors) in planning service projects (Bringle & Hatcher, 2000; Day & Hurrell, 2012; Wilczenski & Coomey, 2007). As Jenkins and Sheehy (2012) note, “service-learning should be carefully and thoroughly planned,” and sharing tasks like identifying community partners and needs, determining the resources needed and available, and establishing project goals can benefit from multiple entities and differing perspectives (Preparation section, para. 1). Indeed, the collaborative space-inasmuch as resources are shared and tasks are allocated among service project stakeholders- provided by planning teams appears to mitigate the stress, and perhaps barriers to entry, of implementing community engagement. Although Bringle and Hatcher (2000) briefly note that community engagement is “compatible” with a collaborative environment (p. 71), little attention has been paid to utilizing collaborative teaching within the context of community-engagement. What we are calling cross-collaborative community engagement, an innovative approach to collaborative teaching, provides
promising potential for instructors seeking to integrate community-engagement into separate courses.

Collaborative teaching, also referred to as co-teaching or team teaching, typically consists of two or more instructors sharing the responsibility for teaching students in the same course (Bettencourt & Weldon, 2010; Mahoney & Brown, 2013; Shibley, 2006; Thousand, Villa, & Nevin, 2006). Instructors working in collaboration dually contribute not only to the internal classroom experience, but also to course planning/design and evaluation/assessment tasks.

Collaborative teaching can effectively enhance student and instructor learning. For students, diversity of perspectives, variety in teaching styles, and different levels of expertise between instructors can enrich a collaborative classroom experience and lead to improved student learning outcomes through greater student motivation, attention, and retention (Bettencourt & Weldon, 2010; Ferguson & Wilson, 2011; Game & Metcalfe, 2009; Kliegl & Weaver, 2014). Teachers can also gain from exposure to alternative course materials, experimenting with new pedagogical practices, as well as make insightful connections between different content areas or disciplines (Ferguson & Wilson, 2011; Mahoney & Brown, 2013).

In spite of these benefits, avoiding or alleviating challenges of collaborative teaching has remained a consistent theme in the literature since the early 1990s (Austin & Baldwin, 1991; Bettencourt & Weldon, 2010; Ferguson & Wilson, 2011; Harris & Harvey, 2000; Mahoney & Brown, 2013; Plank, 2011). Early research into faculty collaboration gives advice to “carefully manage” the instructor-instructor relationship (Austin & Baldwin, 1991). Others continue to warn that collaboration can be a “messy…rough-and-tumble enterprise” (Plank, 2011). Various factors can discourage collaborative teaching including, time management, productivity concerns, and limited compensation (Mahoney & Brown, 2013; Plank, 2011). Indeed, cautiousness pervades this literature as authors note the forethought required before instructors leap into a collaborative venture.

While collaborative teaching can enhance collegial connections and provide relief from instructor isolation, issues related to negotiating the power dimensions of a collaborative environment tend to dominate discussions of challenges with this modality (Bettencourt & Weldon, 2010; Ferguson & Wilson, 2011; Shibley, 2006). As Plank (2011) explains, collaborative teaching “moves beyond the familiar and practicable” to new territory “where they [have] to master new material, negotiate with others, and trust their colleague” (p. 2). Instructors must negotiate their roles, degree of authority, time allotted to their content, and assessment styles (Ferguson & Wilson, 2011; Jones & Harris, 2012). Sharing a classroom- often regarded as a private learning space- can lead instructors to feel vulnerable to the other’s scrutiny, creating competitiveness and/or loss of confidence in one’s teaching ability (Shibley, 2006). Thus, as Day and Hurrell (2012) notes, collaboration can indeed be a “daunting” undertaking (p. 6).

We suggest that cross-collaborative community engagement can alleviate some of the logistical stress related to service-learning as well as eliminate some of this modality’s
common pitfalls. As instructors of two separate courses, we collaboratively planned and executed a community-engaged project that culminated in the creation of a public blog on food justice. In what follows, we offer initial reflections on this experience, through the planning, implementation, and assessment of a cross-collaborative community engaged project.

Introducing Cross-Collaborative Community Engagement

This approach emerged as a way for us to develop a term-length community engagement project, and utilize collaboration while maintaining mutually autonomous courses. In early 2012, each of this essay’s authors sought ways to enliven journalism and social justice courses offered in our university’s general education program. These courses each emphasize communication skills through broadcast media production and persuasive writing, respectively. Although these courses have different individual learning objectives, both thrive on students integrating their personal interest and experience outside the classroom into class activities and projects.

Together, we conceptualized a cross-collaborative community-engaged project centered around an identified social issue relevant to our community; the project would include participation in campus activities throughout the semester, and conclude with a capstone event for all students and community partners involved. Executing a semester-long service project in partnership with community organizations posed daunting tasks for either instructor individually. Collaboration across our two classes allowed us to lean on one another’s strengths and to share resources, while maintaining relative autonomy and addressing course-specific content and skills development.

We followed the stages for implementing service learning in higher education courses as delineated by Jenkins and Sheehy (2012): preparation, implementation, assessment/reflection, and demonstration. We participated in planning sessions, implemented our cross-collaborative community engagement project over the course of a semester, and engaged in reflective assessment at the project’s conclusion. In what follows, we describe each stage of the cross-collaboration process, and conclude with best practices for utilizing this unique approach.

Planning Phase: Becoming a Team

Rytivaara and Kershner (2012) indicate that the origins of co-teaching experiences are often serendipitous and unexpected. In our case, informal conversation was the primary channel by which we each expressed reservations about incorporating a community-engaged project into our social justice and journalism course, respectively. We considered the possibility of a dual project, to which students in each course contributed. This “teacher talk” (Rytivaara & Kershner, 2012) became the space in which we each learned

2 Maintaining individual course learning objectives differentiates the cross-collaborative approach from integrated course design. Rather than teaching several subject areas or connecting separate areas of study within a single course, cross-collaboration joins two distinct courses through a shared project that can support specific learning objectives in each without requiring further integration.

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about our pedagogical values and intentions regarding instruction and learning objectives in each course, allowing us to develop shared ownership for what would become a service-learning project shared between two courses. We realized early on that a community-engaged project would enhance learning in journalism and social justice, while providing unique opportunity for our students to engage with one another also became apparent. Working together in the planning process lessened the stress of coordinating separate service projects and defining the expectations for what a cross-collaborative community engagement project could look like.

In line with Jenkins and Sheehy (2012), planning sessions were used to identify community partners and conceptualize the social need to be addressed through the project, determine our resource needs, set a project timeline, and plan the project-related learning objectives for each course. We established three goals to guide the project. First, we wanted students to develop course-specific skills while learning about a relevant social issue. Second, we wanted students to learn how to build a network of peers and community members. Finally, we aimed to develop a project that would facilitate creation of a portfolio of service products that students could draw upon to share project-related insights as well as to market themselves professionally. In planning our cross-collaborative community engaged project, Hunt provided connections to local food justice advocacy groups as well as readings and videos, which were integrated into each course; Krakow set up and maintained the blog that would house the students’ project deliverables.

Community-engaged projects related to attention-grabbing issues, including the environment and hunger, tend to interest students and provide motivation during project implementation (Heath, 2010; Wilczenski, & Coomey, 2007). Food is a convenient pedagogical tool as it is familiar to- yet typically taken for granted by- students; food justice invites exploration of social issues like food quality and access, nutrition, and hunger (Gottlieb & Joshi, 2010). We arrived at this social issue by combining one another’s interests with the community contacts provided by Hunt. The project was conceived as the facilitation and promotion of food justice awareness events on campus in partnership with food-based community organizations, including a local food bank and urban garden, and culminating with participation in a campus and community-wide fundraising banquet at the semester’s end. As a central topic organizing our cross-collaborative community engagement project, food justice provided content flexibility that allowed us each to manageably weave it into our two separate courses.

Together, we developed complementary course syllabi and teaching materials, created a schedule of shared events, and designed complementary class assignments. To best facilitate a collaborative partnership between our classes, each was organized to mimic the activities of an applied setting- social justice students were organized as an advocacy group, and the journalism class was organized as a newsroom- inviting students to envision themselves as real participants in the promotion of food justice issues, while also providing opportunities for connections between both groups of students.

As a tool to connect students with each other and to share their project experiences, Krakow suggested the creation of a public blog to showcase all students’ work related to the
food justice events. Recognizing the complementarity of audio/visual news stories with written op-eds/commentary, we created blogging assignments for each course, tailored to the journalism and advocacy skill sets of each group. The blog became a public forum for students to present their work and engage in discussions about events they attended and issues they were learning about. Again, we held regular instructor meetings to assess the blog’s progress throughout the semester.

Cross-collaborative teaching thus became a strategy for mitigating the logistical difficulty of implementing separate community-engaged projects in our respective courses. Through what began as informal brainstorming, we expressed our pedagogical interest in and initial anxiety about introducing community engaged learning, and realized complementary skills and resources for which we could draw on one another, allowing us to plan and implement an innovative approach to community-engagement and collaborative teaching.

**Implementation Phase: Connecting the What to the How**

The community engagement project was introduced to students during the first week of each class. Each instructor visited the partner course to introduce herself and provide contact information, reiterating the shared expectations for the project and each group’s contributions. Throughout the semester, students participated through the shared food justice events and by posting on the collaborative blog. The blog was publicized on campus and to our community partners, increasing the visibility of the project to audiences beyond project stakeholders. Thus, the blog served as a central communication tool as students across our classes shared their experiences on the project and reflections on food justice.

Each month, members of both classes attended lunch-and-learn programs focused on food justice. Journalism students researched and produced various types of news stories covering these events; social justice students helped facilitate the monthly programs and wrote accompanying reviews for each. All of these materials were posted on the blog, where students responded to each other through structured online commentary.

The cross-collaborative community engagement project culminated in a campus-wide hunger banquet, a dinner and lecture event designed to foster awareness of global hunger. Together, all students provided materials featured at the hunger banquet. Journalism students created an audio-visual display of news stories, photographs, videos, and comments from the blog. The banquet also showcased art installations featuring food packaging to demonstrate the average Food Stamp budget and diet, created by the social justice students. Both classes also attended the banquet as guests, actively experiencing the results of their project.

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3 Although we each visited the complementary course at the start of the term, classroom visits were limited to maintain the cross-collaborative dynamic between our courses. With contact information exchanged between courses, students were given the opportunity to engage both instructors as needed. Further, both instructors attended all project-related events and specifically engaged with the other group of students to check in on their progress and engagement in the project.
Project Evaluation: Assessing the Cross-Collaborative Community Engaged Approach

This project set out to explore the ways that a collaborative teaching approach could enhance the experience of bringing community engagement to two separate undergraduate courses. Specifically, our cross-collaborative community engagement approach allowed us to bring “the best of both worlds” to our teaching, and create opportunities for practical skill application and experiences outside of our classrooms.

An important principle of community engaged learning is the provision of structured opportunities for purposeful reflection on student service experiences. Reflective writing and evaluative rubrics provide space for students to process, validate, and articulate what they learned and how they learned (Jenkins & Sheehy, 2012, Assessment/Reflection section, para. 1). To this end, students composed structured, reflective essays to process their experiences with the cross-collaborative community engaged project, including the selected topic of food justice, participation in project activities, and collaborations with fellow students, instructors, and community partners. At semester’s end, we also conducted an evaluation of the project by gathering and reviewing course materials, our teaching notes, formal course evaluations collected by the university, and students’ project reflections.

We agreed that the collaborative approach to organizing the service project was successful from our point of view as instructors. Cross-collaborative community engagement allowed us to create a shared-yet-distinct collaborative experience, avoiding some pitfalls of typical approaches to collaborative teaching and community engagement. In addition, students also found the cross-collaborative community engagement project an insightful and successful venture. These materials indicate a positive experience that provided students with pragmatic knowledge and application. Our evaluation also indicated challenges to initiating and sustaining collaboration with students across individual courses.

The Best of Both Worlds

Evaluation materials reveal that both instructors and students appreciated the “best of both worlds” outcome fostered by the cross-collaborative approach. A clear benefit was the opportunity to draw on one another’s expertise and resources in distinct areas related to facilitating the service project; we kept in constant contact to answer questions, share resources, as well as answer student queries. For example, Krakow’s teaching notes mention early in the semester that she found it useful “to direct journalism students to [Hunt] when they had complex questions about food justice policies or needed to get ahold of a community partner that was difficult to reach.” Hunt’s teaching notes also recount this instance with a sense of relief: “[R]ealizing that [student] was in need of a community contact for her story, I was glad to be able to easily connect her to the campus gardening group through my contacts there.” This evidences our shared feeling that executing such a large-scale community engagement project individually would have been more difficult without the expertise each instructor provided. Thus, sharing the workload for project organization and implementation was a distinct benefit of the cross-collaborative approach.
The unique nature of our collaboration – two instructors leading autonomous courses on separate topics – allowed us to work together while avoiding the pitfalls of traditional team teaching. Because we each maintained singular instruction of our own class, we did not have to manage the in-class negotiations that occur between collaborating instructors including day-to-day lesson planning and time management (Bettencourt & Weldon, 2010). Indeed, Hunt indicates her positive feelings about the shared-yet-distinct collaboration in her teaching notes, “Students told me today they appreciate interacting with the Journalism class on the blog… but I find it essential that our class also has time to work on our own aspects of the project, like planning the art installation for the hunger banquet.” Because each class continued to meet separately, each instructor was able to maintain autonomy over her course’s materials, teach respective content, and achieve individual course objectives.

The Benefits of Practical Applications

Our approach offered students opportunities to develop practical skills they are likely to encounter in the workplace, and to demonstrate these skills in the fields of journalism and social justice advocacy. We agreed to structure each course to mimic the activities of applied settings to invite students envision themselves as real participants in the promotion and reporting of food justice issues. Our teaching notes indicate that we each found this structure beneficial for organizing class activities and motivating student participation. This was particularly appreciated by journalism students, as Krakow wrote: “They are really working together to divide up responsibilities and produce the best stories for their assigned beats…seeing their work published on the blog, with comments, helps them envision themselves as true practicing journalists.”

Students also reflected on the benefits of the applied settings. One social justice student noted that “trying to figure out how to best communicate information forces you to take a detailed look about how people acquire messages generally, and how these different methods drastically change the end result.” Throughout the semester, students learned more about methods and motivations for engaging in advocacy/activism, and learning by doing “what it takes” to get particular service-related tasks done. A student broadly summed up his enthusiasm for the applied classroom approach: “[T]he actual kinetic practice of working through food justice can be so much more effective than simply talking about social justice theories.” Several expressed excitement about the opportunity to work on tasks “outside of my comfort zone” as well as to “push myself farther and realize that I can do more than I thought possible.”

Given the shared-yet-distinct structure created by the cross-collaboration, the blog was an essential tool for maintaining communication across the two courses. Krakow noted, “I’m impressed with the quality of the comments on the blog. I think that my students are holding themselves to higher standards when they know the other class is responding their work.” Students also reiterated the practicality of the blog as a teaching tool. As one social justice student reflected, “The class blog was a great communal way of exchanging ideas and reflecting on class events. It provided a good forum to talk directly with other students about advocacy techniques.”
Challenges to the Cross-Collaborative Community Engagement Approach

Both instructors and students generally felt that the cross-collaborative community-engagement venture was successful in mitigating many of the issues related to more traditional collaborative teaching approaches (Harris & Harvey, 2000; Mahoney & Brown, 2013; Plank, 2011). Yet it was not without limitations, as our teaching notes and student feedback indicate some unanticipated drawbacks of this initial experience. As noted, purposeful reflection is an important element in the facilitation of community engagement projects (Jenkins & Sheehy, 2012, Assessment/Reflection section, para. 1), for co-teachers, reflective activities not only allow for assessment of the collaborative learning process, but also contributes to professional learning and the refinement of one’s teaching practice (Rytivaara & Kershner, 2012). With this in mind, the unexpected challenges we experienced are included here not to dissuade others from pursuing a cross-collaborative approach, but rather demonstrate the importance of honest reflection for continued modification.

Although we each appreciated the autonomy we had in maintaining separate courses, we could not fully escape feeling obligated to the other instructor as the service project unfolded. For example, after the second lunch-and-learn event, Hunt needed extra time to prepare social justice students for writing and uploading their editorial comments to the blog, yet she felt uncomfortable asking Krakow to change the deadline: “…I had to ask [Krakow] to let her students know that they cannot expect to see my students’ comments on the blog until next week. I hate to make them all wait” Further, Krakow felt pressured to have journalism students work quickly to post polished items to the blog for social justice students to comment on: “If we did not have a second class working with us on the blog, I could slow the pace down to give my students a little more time on their photo project.” Thus, although we were able to avoid issues of competition and anxiety often associated with the traditional collaborative teaching environment (Bettencourt & Weldon, 2010; Ferguson & Wilson, 2011; Shibley, 2006), we were still accountable to one another simply by creating a collaborative relationship between our courses.

Students also expressed some concern with community engagement. For example, although there was no added tuition fee associated with either course involved in this project, those who had not anticipated the extra work required in a community-engaged context became irritated: “If I were to improve one thing, it would be having a notice in the course description or an email ahead of the semester letting students know that there is a service learning component to this course. I think that this would also help with people being more dedicated to the projects and the work that we did.” Further, a small but distinctive subgroup of students conveyed disappointment with not being able to be more involved in the selection of the course issue: “…it would have been a lot more fun for me if I was able to choose a cause to advocate for and get a group of people together in class to advocate and serve.” In our post-project reflections, we agreed that having students who wished to seek out other social justice topics of interest to them is a worthwhile problem though the success of cross-collaborative community engagement rests on classes connecting on a shared socially relevant project.
Despite these limitations, our evaluation of the project as a whole suggests that cross-
collaboration can be an effective strategy for bringing community engagement into sepa-
rate classrooms. Importantly, both of these challenges are common, and perhaps to some
degree unavoidable, in a collaborative community engagement context. In light of these
unexpected issues, we suggest instructors anticipate hurdles in the planning process, cre-
ating an accommodating atmosphere between all collaborative partners (including both
courses, as well as any service/community partners involved), and building flexibility
into the service project (i.e. timeline, assignments, and deliverables).

**Best Practices for Cross-Collaborative Community Engagement**

Community engagement is an innovative and exciting approach to implementing applied
learning, particularly across different kinds of courses. Ultimately, for students and in-
structors alike, our initial experience with a cross-collaborative community engagement
approach was a success. Bringing community engaged learning into the classroom can be
a daunting task requiring substantial time and coordination above and beyond regular
teaching and research expectations. This study offers one strategy for successfully intro-
ducing community engagement through collaboration with another instructor, enriching
the teaching, learning, and community experiences for all involved.

For higher education instructors who may find the work required to plan and implement
traditional modes of collaboration “daunting” (Day & Hurrell, 2012, p. 6), cross-
collaborative community engagement can be a more manageable approach. We suggest
several best practices for utilizing this modality. First, faculty are encouraged to seek out
others teaching complementary courses that may be within one’s department, in another
program, or perhaps at another institution. Instructors should engage in exploratory
“teacher talk” (Rytivaara & Kershner, 2012), and be open to share pedagogical values,
knowledge, and expertise. Keeping each course’s learning objectives in mind, brainstorm
possibilities for the community engagement project with consideration of the resources
and networks available through each instructor. Planning is key (Jenkins & Sheehy,
2012), and instructors should work together to set a project timeline, schedule appropriate
assignments, and share information between classes; for us, the blog served as the portal
for communication and presentation of project deliverables. Finally, this approach is
marked by its shared-yet-distinct structure, it is therefore essential that instructors reg-
ularly check-in throughout the cross-collaborative process, making adjustments as needed,
as well as evaluate and reflect at the project’s conclusion.

Instructors of higher education should continue to report the successes and challenges of
implementing such an approach. In particular, more research is needed to develop and
assess strategies for implementing community-engaged projects in interdisciplinary se-
tings. Working with a fellow instructor, either within one’s department, one’s college, or
perhaps at another institution can offer additional support and ongoing resources in navi-
gating the waters of community-engaged projects. As institutions of higher education
continue emphasize career development, applied skill sets, and community involvement,
this case study offers one strategy to make community-engagement an accessible and
successful undertaking.
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