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an online journal devoted to teaching excellence

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C/o Center for Teaching Excellence
University of North Carolina Wilmington
601 S. College Road
Wilmington, NC 28403 USA
FAX 910-962-3427

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CONTENTS

Letter from the Editor-in-Chief:
Russell L. Herman .................................................................................................................. 1-4

Scholarship of Teaching

Evaluating the Impact of Two Globalization Projects on College Students’ Cultural Competence and Cultural Intelligence (CQ)
Solange A. Lopes-Murphy .................................................................................................... 5-18

Effective Teaching

Student Perceptions of Cognitive and Social Learning in Global Virtual Teams: A Pilot Study
Gary F. Kohut and Maria G. Yon ......................................................................................... 19-32

Instructional Podcasting with Undergraduate Digital Natives
Kevin M. Thomas and Dottie Willis ..................................................................................... 33-43

Understanding How and Why College Students Engage in Learning
Twila Lukowiak and Jana Hunzicker ................................................................................... 44-63

Using Classroom Competitions to Prepare Students For the Competitive Business World
Fay Y. Gibson, Doris H. Kincade, and Pamela Y. Frasier .................................................... 64-77

Social Responsibility, Critical Analysis, and Literary Studies: Continuing Conversations About Service Learning
Andrew Bourelle and Tiffany Bourelle ............................................................................... 78-88

The 21st Century Digital Student: Google Books As A Tool In Promoting Undergraduate Research In The Humanities
Lara Karpenko and Lauri Dietz ............................................................................................ 89-106

CALL FOR PAPERS

The Journal of Effective Teaching is accepting submissions for review for the Fall 2013 issue. Manuscripts will be due May 31, 2013. The expected publication date will be September 30th. Articles will be accepted in any of the Content Areas supported by the journal.
INFORMATION FOR AUTHORS

The Journal of Effective Teaching is an electronic journal devoted to the exchange of ideas and information about undergraduate and graduate teaching. Articles are solicited for publications which address excellence in teaching at colleges and universities. We invite contributors to share their insights in pedagogy, innovations in teaching and learning, and classroom experiences in the form of a scholarly communication which will be reviewed by experts in teaching scholarship. Articles should appeal to a broad campus readership. Articles which draw upon specific-discipline based research or teaching practices should elaborate on how the teaching practice, research or findings relates across the disciplines. We are particularly interested in topics addressed in the particular Content Areas described at this site, including empirical research on pedagogy, innovations in teaching and learning, and classroom experiences.

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Manuscripts for publication should:

- Follow APA guidelines (5th Edition).
- Include an abstract and 3-5 keywords.
- Typeset in English using MS Word format and 12 pt Times New Roman
- Articles/essays on effective teaching should be 2000-5000.
- Research articles should be 3000-8000 words.
- Tables and figures should be placed appropriately in the text.

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<table>
<thead>
<tr>
<th>Deadlines for Upcoming Issues</th>
<th>Fall 2013</th>
<th>Spring 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submissions Due</td>
<td>May 31, 2013</td>
<td>October 31, 2013</td>
</tr>
<tr>
<td>Notification of Acceptance</td>
<td>July 31, 2013</td>
<td>December 31, 2013</td>
</tr>
<tr>
<td>Final Manuscripts Due</td>
<td>August 31, 2013</td>
<td>January 31, 2014</td>
</tr>
</tbody>
</table>
Letter from the Editor-in-Chief:
How Much Do Faculty Work?

Russell L. Herman

The University of North Carolina Wilmington, Wilmington, NC

Once again there is an economic cloud hovering over college and university instructors. Over the last several decades, the typical response to recessions has been to cut state higher education budgets and replace the funds supporting public education with increases in tuition and fees. Gold (1995) noted that during the recession of the ‘90’s, “higher education took the worst beating of any major spending category.” This led to average tuition increases of 36.6 percent between 1989-90 and 1992-93 at four-year public colleges and universities. More recently, we are seeing additional increases in the costs of education and efforts to change higher education as we once knew it. Along with consideration of such changes, people often ask, “How much do faculty work?”

This question is tied directly to other questions, such as “What do college and university faculty members actually do?” and “How much time do faculty invest in teaching, scholarship, and service?” Readers of this journal no doubt have varying answers these questions. However, contrary to public perception, most faculty do not come and go as they please. To be an effective instructor involves “active involvement with students, constant preparation and reflection, engagement in peer collaboration and discourse and community involvement with the next generation of scholars and leaders.” An effective teacher cares about teaching and students. Every component of their workload ties what they do to the advancement of knowledge in both the content and teaching methods aimed at fostering lifelong learning in their students.

I know I have been quite busy myself over the last two weeks. I typically come to work by 6 A.M. in preparation for 8:00 A.M. classes every day and office hours every day and leave after 5:00 P.M. In the last two weeks I had 10 meetings with students on projects and a Directed Independent Study. I did two peer classroom observations, three events for the Center for Teaching Excellence, attended two colloquia, participated in a panel discussion open to the public on the notion of time (which took hours of preparation for a ten minute presentation), attended a two hour department meeting, attended a two hour meeting on evaluating faculty teaching, spent time reviewing annual reports for the previously mentioned meeting, and had a planning meeting for an upcoming public seminar by a noted speaker. I also reviewed a couple of papers for professional journals, entertained student questions when they came by outside of office hours, and wrote two refer-

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1 Author's email: hermanr@uncw.edu
2 Correspondence with John Fischetti, JET Editorial Board.

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ence letters for students. This past weekend my colleagues and I ran five events for the regional Science Olympiad, which required getting majors to volunteer and to draft the events and spend 6 A.M. to almost 5:00 P.M. on campus on a Saturday. Well, that is almost all I have done the past two weeks. I also worked on putting the current issue of JET together. I am sure I am leaving something out, like editing and posting video lectures of one of my classes, grading homework, and hoping to find time to finish the draft of a textbook for my publisher.

Questions about faculty workload are not new (Charters, 1942; Wyant & Morrison, 1972). Charters (1942) discusses data collected from faculty of the College of Education at Ohio State. In this study faculty report many of the same activities that we would list some seventy years later: class instruction; preparing syllabi, notes, exams; professional reading, writing, attending lectures, practicing; grading and reading papers; mentoring; professional functions; dissertations and theses; conference attendance (also with students), committee meeting and committee work; research; clerical work; preparing for professional activities; and other assorted activities. They overall worked 50-65 hours per week. This included working additional hours during the evening and over weekends. Half those interviewed began work between 8:00 A. M. and 9:00 A.M. and half ended between 7:35 P. M. and 10:30 P.M. The median class load was 12 hours and they spent roughly the same amount of time in preparing for classes and grading papers. The rest of the time was devoted to the other activities.

In 1994 the AAUP published a report, The Work of Faculty: Expectations, Priorities, and Rewards, which described the climate at the time and that preferred maximum faculty workloads were determined. In 1969 the goal was to balance teaching and research. In the 90’s service was added to the mix. The general recommendations in 1969 were that for undergraduate teaching the maximum, though not recommended, load was 12 hours per week with not more than 6 different preparations per academic year. For graduate courses the maximum was 9 hours per week. The report also included data from the Department of Education that reported 1988 faculty workloads across colleges and universities by Carnegie Classification indicating that the average total number of hours worked by faculty at 4-Year institutions was 54 hours per week. The time spent on various activities in Fall 1987 differed across different institution types, but the percentage of time spent on teaching varied from the low 40%’s for research institutions to 60-70% at comprehensive, liberal arts, and two-year institutions. A large chunk of the remaining time was divided amongst research and administrative activities.

A 2012 FSSE (Faculty Survey on Student Engagement) survey of faculty in 2011 indicate that faculty spend on average 64% of their time to teaching and 14% to research. Another report of interest is the HERI Faculty Survey (Hurtada, Eagan, Pryor, Whang, & Tran, 2012). More recent data can be found online from various institutions. For example, MIT posted a 2004 faculty survey which is interesting to read because it is an in-depth review of not only faculty activity, but also looks at areas that faculty find particularly stressful. In fact, this survey highlights a high level of stress in spite of the fact that most faculty enjoy this line of work. This is contrary to the discussions which recently took place at the Forbes blog site as a result of Adams (2013) reporting that the least
stressful job is that of a university professor. This sparked a few responses, including the thoughtful response from David Kroll (2013) and the numerous comments on his article.

One omission in many studies is to track the work habits of professors during vacations and summer months, which is another misperception that has appeared in the media (Levy, 2012). Faculty salaries only cover nine months of the year. Often faculty work over the summer: doing research; going on field trips; hosting study abroad trips; writing papers and books; conducting or attending professional workshops; going to conferences; or, carrying out curriculum development for the following academic year. Many faculty work over Fall and Spring Breaks, which are only meant to be breaks for students. Some faculty get external funding, but that is another area affected by recent budget cuts. So, in order to get the necessary work done which counts towards their productivity (Musick, 2011; Townsend & Rosser, 2007), faculty often have to support their funding for professional development, including books, travel to conferences to continue learning new content and pedagogy and technology to keep up with the rapid rate of change.

There have been many comments in recent years mischaracterizing faculty workloads. No doubt readers of JET are well aware of how much time they spend on teaching, scholarship, and service. We are also aware of how difficult it is to keep up with our content areas and new research into student learning and methods for reaching students or using emerging technologies. On top of this, our students are changing and what they bring to the classroom is changing. We are seeing workloads increase in order to address accountability, especially in assessment. (We have to design our own assessment rubrics, administer them, and write up reports on what we have learned.) But if some have their way, like the Governor of Ohio, we may see a government mandated increase in faculty workload (Kilpatrick, 2013; Straumsheim, 2013). So, perhaps more of us (as part of our workload?) might consider tracking our activities over a period of time as preparation to answer “What do faculty do?” (For example, see Nell (2011).) Communicating what we actually do might demonstrate that we are continuously striving for effectiveness and excellence both in and out of the classroom.

References


FSSE 2012, Faculty time spent on research, teaching, and other professorial activities. Retrieved March 5, 2013, from http://nsse.iub.edu/_/index.cfm?cid=509


Evaluating the Impact of Two Globalization Projects on College Students’ Cultural Competence and Cultural Intelligence (CQ)

Solange A. Lopes-Murphy

Indiana State University, Terre Haute, 47809

Abstract

Cultural competence and CQ involve awareness of cultural similarities and differences, knowledge of differences in cultural values, and intercultural encounters. To assess college students’ cultural competence and cultural intelligence gains, this experimental study evaluated the impact of two globalization projects on these two constructs. The control group conducted library research on aspects of cultural integration, whereas the treatment group participated in a community engagement experience. There was no increase in cultural competence and CQ as measured by the surveys for either of the two activities. Results also suggest that neither activity was more effective than the other. The study suggests the need for sustained infusion of activities that enhance students’ cultural competence and CQ.

Keywords: Cultural competence, cultural intelligence, community engagement.

Multicultural and diversity sensitivity is a skill employers point out as being one of the top ten skills they look for in prospective employees (Kennedy, 2012). The methods and processes needed to equip future professionals to become globally conscious and globally competent have attracted the attention of researchers (Ang et al., 2007), who are looking at ways to incorporate cultural intelligent practices throughout a child’s education and to create a plan to assess CQ.

According to the Cultural Intelligence Center website (2012), cultural intelligence (CQ) is defined as “a consistent predictor of performance and adjustment in multicultural settings.” To date, the body of research on CQ is still theory-focused (Sternberg & Grigorenko, 2006), and the experiences that lead individuals to adjust in multicultural settings have not yet been widely explored (Gelfand, Erez, & Aycan, 2007). Few studies have measured the effectiveness of different methods for increasing cultural competence and intelligence. The scarcity of research on CQ is due to the fact the construct is still rather new, especially as it relates to educational settings (Ang et al., 2007).

The objective of the present, empirical study is to compare the impact of two globalization projects on college students’ cultural competence and CQ. The central research question that guided this study was:

1 Corresponding author’s email: Solange.Lopes-Murphy@indstate.edu
Do community engagement activities provide college students with higher levels of cultural competence and CQ compared to projects that only require research about facts related to other cultures?

Two additional research questions were examined:

Were there any student characteristics that predicted cultural competence and CQ?

Did students’ perception about the effect of the projects on their cultural competence and CQ match the effect revealed by the pre- and post-surveys on cultural competence and CQ?

Theoretical Background

There is an array of definitions of cultural competence and cultural intelligence. According to Ladson-Billings, cultural competence is “about student acquisition of cultural knowledge regarding their own cultural ways and systems of knowing society and thus expanding their knowledge to understand broader cultural ways and systems of knowing” (as cited in Milner, 2011, p. 71). Cultural intelligence, on the other hand, is “the ability to make oneself understood and the ability to create a fruitful collaboration in situations where cultural differences play a role” (Plum, 2007, p. 1). A close look at both definitions suggests that cultural intelligence includes a dimension that goes beyond the “knowledge” level, a fundamental condition for culturally competent individuals. A culturally intelligent person is someone who not only knows about differences in cultural backgrounds, but who allows him/herself to be changed by intercultural encounters.

It is not uncommon for cultural competence and intelligence to be used interchangeably in the literature. However, Peterson (2004) believes that competence is “…not something we should ultimately strive for but rather, should excel beyond.” (p. 87). He then proposes aiming for cultural intelligence as it represents the higher goal. Peterson defines cultural intelligence as

…the ability to engage in a set of behaviors that uses skills (i.e., language or interpersonal skills) and qualities (e.g., tolerance for ambiguity, flexibility) that are tuned appropriately to the culture-based values and attitudes of the people with whom one interacts. (p. 89)

Research by Alred, Byram, and Fleming (2006) and Zapata (2011) suggests that to help individuals develop the behaviors, skills, and qualities that define them as being culturally competent and culturally intelligent, they need to engage in face-to-face encounters with people who represent different cultures, values, beliefs, etc. It is through these intercultural encounters that one can develop the skills needed to engage in healthy inter-ethnic interactions and meet the needs of a pluralistic society, thus preparing these indi-
viduals to compete in the global arena (Crider, 2007; Rivera, Johnson, & Ward, 2010). Researchers (Ang et al., 2007, and Karnyshev & Kostin, 2010) also agree that to develop effective graduates, university programs must focus on helping students understand “the norms, practices and conventions in different cultures acquired from education and personal experiences” (Ang et al., 2007, p. 338). Such understanding includes awareness of cultural similarities and differences (Brislin, Worthley, & MacNab, 2006) and knowledge of differences in cultural values (Hofstede, 2001).

To gain a deeper understanding of cultural similarities and differences, college students must learn more than just facts about other cultures; college curricula must include opportunities for personal experiences and intercultural encounters in a college setting (Zapata, 2011). Educators need to be intentional in their instructional design and incorporate opportunities for cross-cultural interactions in their classes (Karnyshev & Kostin, 2010). These interactions will expose these future professionals to situations that will require them to intentionally select the right behaviors when interethnic contacts occur (Crider, 2007).

Community engagement activities can provide opportunities for these interactive, first-hand encounters. Community engagement activities are those embedded in the academic curriculum with the purpose of involving students in the community (Zapata, 2011). Such involvement can happen in a variety of ways, as long as service is provided to the members of the community through direct contact. Direct contact with individuals from diverse groups and with stories from another culture will allow for cultural exposure and, consequently, greater cultural understanding. These out-of-the-classroom activities provide numerous benefits in college education beyond cultural knowledge gain, among which are awareness of differences in interests, values, and views; verbal and social gains; prejudice reduction; and personal acceptance (Kuh, 1995; Tutt & McCarthy, 2006). According to Zapata (2011), community engagement activities have become one of the most effective ways of promoting cultural understanding and competence to college students.

The Study

This study aimed to evaluate the impact of two globalization projects on college students’ cultural competence and CQ. The two projects were part of the course requirements for two sections of an introduction to language and culture class at a public midwestern state university during one academic semester. The course is required for all students majoring and minoring in the Language Studies program. The course is an experiential introduction to the sources, representations, changes, varieties, and social, political and cultural functions of language. Both sections of the course were taught by the same instructor, and the course requirements were the same for both sections. In both sections of the course, students were randomly assigned to participate in one of the two globalization projects – the StoryWalk® project or the Globalized World project.
The StoryWalk® Project

The StoryWalk® project is a community engagement activity created by Anne Ferguson of Montpelier, Vermont, in collaboration with the Vermont Bicycle & Pedestrian Coalition and the Kellogg-Hubbard Library (Vermont Bicycle & Pedestrian, 2012).

The project consists of a combination of reading storybooks while walking, thus promoting physical fitness. The project involves the selection of reading materials targeted to younger readers to stimulate their desire for reading in a fun and interactive way. Once selected, the pages in the reading materials are separated, laminated, and attached to a pole, a fence, or any other area that allows readers to go through the story while walking on a path.

A central component of the StoryWalk® activity is the interaction that takes place between an experienced reader and a novice reader during the reading and walking process. These interactive exchanges aim to stimulate novice readers’ reading skills through questioning, imaging, creating, predicting, and discovering. These are recommended strategies to maintain children’s interest in the story (Adamson, 1980).

For the present study, the stories chosen focused on the topic of language and culture to allow for the analysis of the impact of the activity on participants’ cultural competence and CQ. Participants who were selected to work on this project were free to choose reading materials on any culture of their interest as long as the materials met the five following criteria:

1. The story line had to be appealing to readers in third through fifth grades.
2. The story should have minimal text and a great story line.
3. The story line needed to be such that it could be used in different seasons.
4. The illustrations should not cross the center of the book.
5. The books should be in average 30 pages long.

StoryWalk® participants selected four storybooks targeted to third through fifth grade readers with stories on four different cultures and languages: Spanish, Korean, Brazilian, and Japanese.

The StoryWalk® activity was conducted in a local elementary school with the highest number of culturally and linguistically diverse students. Permission was given by the school principal to have college students selected to work on this project to read stories and interact with third through fifth graders on the school grounds during recess time.

The pages of the reading selections were attached to a long fence by the school playground. Each project participant conducted the StoryWalk® activity with an average of three to four elementary level children. The stories were read to four different groups of elementary children for a total period of two hours on two different days.
The Globalized World Project

The Globalized World was also a team-based project but did not provide opportunities for participants to interact with anyone outside their teams. It required participants to conduct a piece of library research on any aspect of cultural integration. Cultural integration could be researched from the perspective of integration of culturally and linguistically diverse students in PK-12 schools, religious integration in the American society, or any aspect of cultural integration the team was interested in investigating.

Both projects - StoryWalk® and Globalized World - required participants to develop a presentation to be delivered to the whole group at the end of the semester in addition to a reflective journal all individuals had to turn in. The two projects differed only in that the StoryWalk® contained a community engagement component, whereas the Globalized World project did not.

Method

This study was approved by the Institutional Review Board where the study was conducted.

Participants

The participants in this study were 67 undergraduate students at a co-educational midwestern state university. The group combined both majors and minors in Language Studies and was represented by a variety of academic levels (i.e., freshmen, junior, sophomore, and senior). Approximately half of the group \(N = 35\) was randomly selected to work in the StoryWalk® project and the other half \(N = 32\) in the Globalized World project. Two teams of six to nine members were formed to work on each project for a total of two StoryWalk® teams and two Globalized World teams. All participants’ native language was English. The majority of the participants \(N = 58\) spoke a foreign language at a proficient or somewhat proficient level. Almost half of the group \(N = 30\) had traveled, lived, or studied abroad and 63 out of the 67 participants had friends from different cultures.

Instruments

Students in both sections of the course were asked to complete a pre-test and post-test survey (see Appendix) that aimed to evaluate students’ cultural competence and CQ. Students responded to the 21 statements in the survey on a 5-point Likert scale \(1 = “fully agree” and 5 = “fully disagree”\). The statements in the survey were developed as a result of a review of the literature on the types of experiences that lead to cultural competence and CQ and analysis of existing validated surveys on cultural competence (Hammer, Bennet, & Wiseman, 2003) and CQ (Van Dyne & Ang, 2006). A new survey was developed, rather than using an existing survey, because existing surveys include statements that do not directly address the context of college level students. The survey developed for the present study included statements that are similar to some of the statements in val-
idated surveys but added statements that describe situations and experiences that college students might encounter in an academic context.

Several questions were asked in such a way that the value of 5 (“Fully disagree”) on the Likert scale represented the most culturally competent and intelligent response, but for most of the questions, the response corresponding to most culturally competent and intelligent had a value of 1 (“Fully agree”). To place all questions on the same scale and to produce a measure of cultural competence and intelligence in which the higher scores indicate greater cultural competence and intelligence, all responses were converted so that a 5 represented the most culturally competent and intelligent response.

The survey was piloted in three classes $(N = 68)$ during the semester prior to the present study to assess the reliability of the instrument; reliability was reasonably high (Cronbach’s alpha = 0.80).

Students completed the pre-test survey prior to becoming involved in the globalization projects. In the pre-survey, the participants were asked to evaluate three additional statements that asked participants whether: 1) they spoke a foreign language or a language other than English; 2) they had traveled, lived, or studied abroad; 3) they had friends from different cultures. The goal of these three items was to assess participants’ previous cultural experiences.

Post-surveys were completed at the end of the academic semester after students had conducted their project presentations. The post-test survey contained the 21 questions from the pre-test survey but did not include the questions on cultural experiences. Instead, it added a question “Do you believe you have become more culturally competent as a result of this activity?”. The purpose of this question was to allow a comparison between student perceptions of increases with actual increases measured by pre- and post-test differences in the survey results.

The reliability of 21 questions for the pre-test survey was reasonable (Cronbach’s alpha = 0.73) but less than the reliability of the pilot administration of the survey. Cronbach’s alpha was increased to 0.77 by removing seven questions from the analysis. For both the pre-test and post-test surveys, the sum of the retained 14 questions was used to calculate a score of cultural competence and intelligence. Because seven students on the pre-test survey and four students on the post-test survey failed to answer one of the questions, a percent score was used, which was calculated by dividing the sum of the scores for the answered questions by the maximum possible sum for the answered questions (i.e., five times the number of answered questions).

Normality of all variables were verified with Shapiro-Wilks, and if the distribution of the variables differed significantly from normality, nonparametric tests were used. Equality of variance between compared groups was verified with Levene’s test.
Results

Sixty-seven students completed the pre-test survey, and 59 completed both the pre-test and post-test surveys.

Comparison between Classroom Activities

Students in the StoryWalk® group did not show greater increases in cultural competence and intelligence between the pre-test and post-test surveys than did students in the Globalized World group (Figure 1). The average change in the cultural competence and intelligence score did not differ between the students who completed the StoryWalk® project (average ± SD = 0.98 ± 6.11) and the students who completed the Globalized World project (1.19 ± 5.81; independent samples t-test, \( t = -0.136, df = 58, p = 0.89 \)).

Figure 1. Average percent scores on pre- and post-test surveys of cultural competence for groups of students completing two different projects. Error bars represent 95% confidence intervals.

Because there were no differences between the two groups in the change in cultural competence and cultural intelligence, the two groups were pooled to determine whether students’ cultural competence and intelligence increased between the pre-test and post-test surveys as a result of the projects. There was no significant change in the cultural competence and intelligence scores of students from the pre- to the post-test (mean change = -1.08; 95% confidence interval = -2.61 – 0.45; paired t-test, \( t = -1.41, df = 59, p = 0.16 \)).
Predictors of Cultural Competence & Cultural Intelligence

The pre-test measure of cultural competence and intelligence was not related to any of the three measures of cultural experiences. Students who spoke a foreign language (checked “fully agree” to “agree to some extent” on question 1, $N = 58$) did not have significantly higher pre-test scores (average = 78.74) than students who did not speak a foreign language (checked “disagree” or “fully disagree”, $N = 9$, average = 74.68, independent samples t-test, $t = 1.39$, $df = 65$, $p = 0.17$). Students who had traveled, lived, or studied abroad (checked “fully agree” to “agree to some extent” on question 2, $N = 33$) did not have significantly higher pre-test scores (average = 78.99) than students who did not (checked “disagree” or “fully disagree”, $N = 34$, average = 77.42, independent samples t-test, $t = 0.77$, $df = 65$, $p = 0.44$). Students who had friends from other cultures (checked “fully agree” to “agree to some extent” on question 3, $N = 63$) did not have significantly higher pre-test scores (average = 78.20) than students who did not (checked “disagree” or “fully disagree”, $N = 4$, average = 78.26, independent samples t-test, $t = –0.016$, $df = 65$, $p = 0.99$). In contrast to the individual measures of cultural experience, there was a statistically significant negative correlation between student’s pre-test scores and the sum of their responses to the questions on foreign language proficiency, experience abroad, and friends from other cultures (Spearman rank correlation $r_s = –0.357$, $p = 0.003$).

Student Perceptions

The proportion of students indicating that their cultural competence and intelligence had increased as a result of their participation in the activities did not differ between those completing the StoryWalk® group (23 of 31 = 74.2%) and the Globalized World group (21 of 28 = 75.0%; $p = 0.643$ Fisher exact test). Of the 59 students that completed the pre- and post-test surveys, 44 (74.58%; 95% confidence interval 63.4 – 86.4%) reported that they felt that their cultural competence and cultural intelligence had increased as a result of their participation in the activities. This proportion was significantly greater than 50% ($p < 0.001$, binomial test).

The students’ perception of whether their cultural competence and intelligence changed as a result of the activities did not match the change measured by the surveys. There was no relationship between the change between pre-test and post-test scores and whether students felt that the activities increased their cultural competence and cultural intelligence (point biserial correlation, $r = 0.018$, $p = 0.892$).

Discussion

The present study focused on one central research question.

Do community engagement activities provide college students with higher levels of cultural competence and CQ compared to projects that only require research about facts related to other cultures?
Participants’ responses in the pre- and post-surveys show that there was no increase in cultural competence and CQ as measured by the surveys for either of the two activities. Results also suggest that neither activity is more effective than the other.

A likely reason why the participants in the StoryWalk® project did not show a greater increase in their cultural competence and CQ than participants in the Globalized World project may have been related to the length of time students were involved in this community engagement activity. That is, participants were engaged in this interactive activity for a total of two hours throughout the semester. Although they interacted with children, a group with whom they may not interact with frequently and who represented different cultures, languages, religious backgrounds, and ability levels, the amount of time that allowed for those interactions may have been too limited to generate significant changes in their cultural competence and cultural intelligence. The short time of engagement was also true of the Globalized World project and may, therefore, also explain why that group did not show an increase in their cultural competence and CQ. A complete and thorough test of the hypothesis that community engagement activities are more effective than library research projects in increasing students’ cultural competence and CQ would require examination of activities that are sustained over longer periods of time.

Two additional questions were examined in the study. They were:

1. Were there any student characteristics that predicted cultural competence and CQ?
2. Did students’ perception about the effect of the projects on their cultural competence and CQ match the effect revealed by the pre- and post-surveys on cultural competence and CQ?

Results show that there is either no relationship or perhaps a negative relationship between students’ previous cultural experiences and cultural competence and intelligence as measured by the survey. Interestingly, there was a negative relationship between cultural competence and intelligence and the sum of the scores on the cultural experience questions.

It is possible that those individuals with a greater combined proficiency in a foreign language, extensive experience abroad, and larger number of friends from different cultures may be more sensitive as to where they stand in the cultural competence and cultural intelligence continuum. These participants may have a deeper understanding of these two constructs and, therefore, understand they are not as culturally competent and intelligent as they would like to become. In contrast, those with fewer or less extensive cultural experience may have a more superficial understanding of the meaning of the two constructs and the behaviors and skills of a truly culturally competent and intelligent person.

The results also show that there is no alignment between the students’ perceptions of their own increases in cultural competence and intelligence and increases measured by the survey. The majority of the participants thought their cultural competence and cultural intelligence increased as a result of the projects; however, their responses on the pre- and
post-surveys show they have not. One possible explanation would be that the validity of the instrument is not sufficiently high. Although the instrument was based on what the literature identifies as culturally competent and culturally intelligent skills and behaviors and the types of statements included in other validated surveys, there remains the possibility that the survey used in this study may not have measured cultural competence and cultural intelligence accurately.

Another, more likely, explanation is that the participants’ own perceptions regarding the two constructs are not accurate. Considering that this was their first semester in a language studies class, they may not yet clearly understand the meaning of cultural competence and cultural intelligence and what is entailed by culturally competent and culturally intelligent behaviors. Even though the majority of the participants have had some level of exposure and interaction with culturally and linguistically diverse individuals and may have immersed themselves in a foreign context, the participants may not have had sufficient experiences or training to truly understand the meaning of cultural competence and cultural intelligence. They may have considered themselves competent and intelligent from the cultural perspective of their previous exposure to diversity, yet that exposure may not have been sufficient to develop a deep understanding of cultural competence and intelligence.

A final possible explanation about the lack of alignment between students’ perceptions of their own increases in cultural competence and cultural intelligence and increases measured by the surveys may be responder bias. Students may have responded in the way they believed the instructor expected them to answer.

A review of 22 studies on intercultural research and outcomes assessment from 1992 through 2012 reveals the uniqueness of the present study. To date, all studies have focused on intercultural competence and intelligence as a result of immersion experiences, in particular study abroad experiences (Bender, Wright, & Lopatto, 2009; Fry & Paige, 2007). None of the studies reviewed used a randomized design in an educational setting to evaluate the impact of course projects on cultural competence and cultural intelligence. There was only one study (Westrick, 2004) that examined the impact of service-learning activities on students’ intercultural sensitivity. The results of the study show that although service-learning or community engagement activities can influence the development of multicultural and diversity sensitivity in students, they do not necessarily do so. These findings suggest the need for empirical research, similar to the one done in the present study, to examine the types of classroom activities that may impact learners’ cultural competence and intelligence and to develop a plan to assess college students’ cultural competence and CQ over the course of their undergraduate studies.

Implications

The results of the present study have important implications for how universities attempt to enhance the cultural competence and CQ of their students. Future empirical research is needed to determine whether other short-term activities might increase cultural competence and CQ in college students. Data are needed on the specific experiences that lead
to cultural competence and CQ in a college context and how those are structured in a program of studies to generate higher levels of cultural competence and intelligence among college students.

Although short-term experiences other than those tested in the present study may produce some gains in cultural competence and intelligence, it may be that single, isolated activities in individual courses may not provide students with significant gains in cultural competence and CQ, even when students are engaged in community activities. Instead, it may be critical that these learners be systematically exposed to cultural competent and intelligent teaching practices modeled by their instructors and engaged in experiences that gradually introduce them to, and allow them to practice, culturally competent and intelligent behaviors. Such exposure and engagement should be part of the overall education of students and should not be restricted to only certain programs (e.g., language studies).

In addition to implementation of activities into curricula to increase competence and intelligence, a systematic plan of assessment should be developed to track the growth of college students in these constructs throughout their program of studies. This assessment should also determine whether graduates have developed the skills needed to function effectively in a global context that requires culturally competent and intelligent skills from professionals.

The need for culturally competent and intelligent professionals in the world market today makes it imperative for university instruction to consider a long-term strategy regarding cultural competence and intelligence, whereby awareness of the cultural competence and intelligence is first raised, and then students are provided activities that strengthen their cultural competence and intelligence. Throughout the curriculum, these experiences should be accompanied by frequent assessment of growth in these two areas.

Acknowledgments

The project received support from Altrusa International of Terre Haute, Dixie Bee Elementary School (DBES), and Indiana State University. These organizations made the project possible by providing financial support for the purchase of the books, copying and lamination of materials, and the walking route for the activity. I would also like to thank Ashley Poff for all her help in structuring the StoryWalk® project. A special thank you to the students in the two sections of LLL 200 – Introduction to Language and Culture for their diligent work and insights on the value of the project for their cultural development and for their suggestions on how to improve the quality of the project for the future. My gratitude also goes to Mika Cassell, DBES principal, her teachers and students for allowing us to conduct the activity in the school and interact with the children. I would also like to acknowledge Dr. Christopher G. Murphy for his expertise and valuable help in the statistical analysis of the data for this study.
References


Appendix

Survey to measure cultural competence.

*Circle the answer that best describes you, your opinions and behaviors.*

<table>
<thead>
<tr>
<th></th>
<th>1 (Fully agree)</th>
<th>2 (Agree)</th>
<th>3 (Agree to some extent)</th>
<th>4 (Disagree)</th>
<th>5 (Fully disagree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People in other cultures do things the same way we do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. I have an interest in learning about different cultures. *</td>
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<tr>
<td>3. Marriage practices are different in different cultures.</td>
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<tr>
<td>4. When I meet people different from me, I compare how my cultural identity is similar to theirs.</td>
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<tr>
<td>5. The way we do things in my culture is better than the way people do things in other cultures. *</td>
<td></td>
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<tr>
<td>6. What people in other cultures believe is as valuable as what people in my culture believe. *</td>
<td></td>
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<tr>
<td>7. The world would be better if most cultures did things the same way. *</td>
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<tr>
<td>8. I am very likely to go to an event on campus that features the music, dance, and art of another culture. *</td>
<td></td>
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<tr>
<td>9. Classroom activities that involve interaction with people from other cultures help a person develop cultural competence. *</td>
<td></td>
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<td></td>
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<tr>
<td>10. I tend to observe people different from me and reflect on how they make me feel.</td>
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<tr>
<td>11. I think of myself as a culturally competent person. *</td>
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<tr>
<td>12. Being around people from other cultures makes me uncomfortable.</td>
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<tr>
<td>13. I like to tell people from other cultures about my own culture. *</td>
<td></td>
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<tr>
<td>14. When I talk to people who do not speak my language well, I change how I speak so they can better understand me.</td>
<td></td>
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<tr>
<td>15. People in my culture have better values than people in other cultures. *</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>16. I enjoy talking with people from different cultures. *</td>
<td></td>
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<tr>
<td>17. It is fair to allow students from different cultures to complete assignments in different ways.</td>
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<tr>
<td>18. If I’m around people of other cultures, I try to behave like they do. *</td>
<td></td>
<td></td>
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<tr>
<td>19. I find it difficult to discuss subjects with people who have an opinion different than I do. *</td>
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<tr>
<td>20. I like to try foods from other cultures.</td>
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<tr>
<td>21. We learn a lot from interacting with people who are different from us. *</td>
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</tbody>
</table>

* indicates questions used to calculate cultural competence score (see Methods).
Student Perceptions of Cognitive and Social Learning in Global Virtual Teams: A Pilot Study

Gary F. Kohut and Maria G. Yon
University of North Carolina at Charlotte, Charlotte, NC, 28223

Abstract

The global work environment requires graduates to have skills to work collaboratively over distance and time. This pilot study presents the findings of a survey of student perceptions concerning a global virtual team (GVT) experience that used both synchronous and asynchronous collaboration. Our findings revealed that while students experienced enhanced cognitive and social learning through the GVT experience, they found the activity to be frustrating and time consuming. However, students acknowledged that the experience was beneficial to their learning and should be incorporated in future course offerings.

Keywords: Global virtual teams, virtual teams, cognitive learning, social learning, collaboration.

Today’s educators are expected to adopt teaching and facilitation techniques that meet the learning needs of 21st century students. Globalization of business and increasing reliance upon communication media means that today’s graduates must develop effective virtual teamwork skills (Cascio, 2000; Maynard, Mathieu, Rapp, & Gilson, 2012; Kauppila, Rajala, & Jyrama, 2011; Scovotti & Spiller, 2011; Townsend, DeMarie & Hendrickson, 1998). Among the types of virtual teams, global virtual teams (GVTs) offer several advantages and disadvantages to organizations. One advantage is that such teams can spend 24 hours a day on a project, thereby increasing the execution and productivity on a project. The 24-hour model along with opportunities to work on different global teams allow for shared leadership, according to Lerner (2008). Additionally, organizations can realize significant cost savings by using technology to communicate as opposed to moving around team members to enable face-to-face interaction. The disadvantages to virtual teams, however, include cultural nuances of operating globally; role ambiguity; feelings of isolation; and the difficulty in decision making via GVTs.

Organizations recognize that to be competitive in today’s marketplace they need the ability to quickly and economically serve their customers. These processes are often conducted by GVTs. Maznevski & Chudoba (2000) note that virtual teams are commonly assigned the most critical organizational tasks, such as developing new global products, coordinating global account management programs, and negotiating and managing global

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1 Corresponding author’s email: gfkohut@uncc.edu

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acquisitions, mergers, and alliances. For example, Microsoft uses GVTs to support major global corporate sales and service (Dittman, Hawkes, Deokar, & Sarnikar, 2010) and organizations such as VeriFone, Intel, Alcoa, and Exxon rely on GVTs to run many of their business operations.

Virtual environments also have great potential to foster collaboration between and among students and schools located in different countries. Electronic communication has removed barriers for participation and has allowed students across the globe to become members of virtual learning communities, independent of place and time (Whatley & Bell, 2003; Wu & Hiltz, 2004). Online interactions facilitate social and collaborative learning processes and thus support the shift away from a teacher-oriented, instructivist approach toward a student-centered, constructivist teaching paradigm (Stacey, 2002). Further, learning through virtual teams to accomplish tasks allows students to develop important teamwork skills. Tseng, Ku, Wang, and Sun (2009) discovered that online collaborative learning, through the use of virtual teams, has been shown to improve learning efficiency and facilitate critical thinking and communication skills.

The main objectives of this study were to determine students’ perceptions toward participation in global virtual teams toward the achievement of course learning outcomes, identify what students found useful or not useful about the virtual experience, and offer strategies to enhance cognitive and social learning through the implementation of GVTs.

Modern teaching practice emphasizes student-centered or collaborative learning where knowledge is constructed by individuals and groups on the basis of their experiences, rather than through a one-way information transfer by teachers (Gupta & Bostrom, 2004; Whatley & Bell, 2003). Thus, collaborative learning is grounded in a learner-centered model that treats the learner/student as an active participant and the instructor as facilitator (Harasim, Calvert, & Groenboer, 1997). Learning is gleaned through discovery, inquiry, and problem solving by direct observation and interaction of interests, needs, and values (Law, 2007). Previous research has identified active and collaborative learning approaches, meaningful feedback, and opportunities for team collaboration, resource sharing, and collaborative writing as keys to fostering collaborative learning in virtual distance education (Palloff & Pratt, 1999). As Palloff and Pratt (1999) explained, learning is driven by the interactions among students themselves, the interactions between the instructor and students, and the collaboration in learning that results from those interactions.

The influence of constructivism has seen radical transformation of the expected roles of students and teachers. The traditional view that learning was a process of structuring and transmitting information from the teacher (expert) to student (learner) has been replaced by the idea of the learner playing a more central role in constructing their own knowledge, and the teacher having a facilitating role in that learning (McDonald, 2007). In this constructivist paradigm, teachers become facilitators of learning by placing greater emphasis on peer interactions for cognitive development (Curtin, 2002), and knowledge is viewed as being socially constructed (Bonk & Cunningham, 1998). Team-based dis-
Discussion, reflection, and assessment allow collaborative learning to occur and encourage the development of important teamwork skills for students.

Social constructivism is based on the idea of learning as a social rather than an individual activity, where social interaction, both face-to-face and virtual, influences cognitive development and is important for improving the quality of learning programs (Moore, 1989; Wilson & Stacey, 2004). Learning involves both cognitive and social processes, and under a social constructivist paradigm students are encouraged to collaborate and engage in active dialogue with team members to create knowledge (Jonassen, 1999). Learning is promoted from a physical perspective through building virtual relationships as well as from a cultural perspective through generating and exchanging knowledge and ideas.

Providing students with opportunities to work together as a team and extend their current knowledge as a “community of learners” (Ligorio & Van Veen (2006) helps them move from simply answering questions to actively engaging in dialogue with other students (Garrison, Anderson, & Archer, 2001; Hausfather, 1996). Muirhead and Juwah (2004) argue that interactivity is critical to supporting the learning process in face-to-face and virtual education. They contend that interactions serve to promote and enhance the quality of active, participative learning in an educational environment. Virtual educational environments fosters these interactions electronically through the creation and development of a community by offering a context for interaction among distant partners and providing opportunities to actually build one’s own environment (Kommers & Zhao, 1998).

The emphasis placed on social interaction in a constructivist context, and the opportunities for interaction provided by technology, reflect the growing importance of collaboration and team knowledge construction in online learning and teaching (McDonald, 2007). Asynchronous and synchronous online discussions allow students who are studying at a distance to construct knowledge together as part of a team, sharing and reflecting upon their experiences and perspectives to arrive at collective meanings and perspectives (Goodyear, 2001; Wilson & Stacey, 2004).

To prepare students for personal and career success, educators have increasingly taken advantage of the internet to build classroom partnerships that link learners to peers for collaborative projects designed to emphasize learning in globally distributed environments (Sapp, 2004; Starke-Meyerring & Andrews, 2006; Zhu, Gareis, Bazzoni, & Rolland, 2005). Indeed, globalization has transformed both how we teach and what we teach in many courses (Starke-Meyerring, 2005). However, while it may appear at first glance that traditional teaching methods such as presentation, discussion, and team-based learning can be easily adapted to virtual contexts, in reality research has shown that teaching and learning in virtual environments is very different from face-to-face instruction (Lueckehans, 1998).

Education is recognized as a leading agent of global change and understanding and educational virtual environments have great potential to foster collaboration among individuals located in different countries. Through these virtual environments individuals learn to interact effectively with different cultures, organization, and individuals. They also gain
insight into their own cultures and social dynamics (Noronha, 1992). Virtual teams working on shared goals across cultures, space, and time have a key role in the successful performance of contemporary organizations as well as in university learning. The findings from a number of studies indicate that multicultural teams, both virtual and traditional, have the potential to perform better than homogeneous ones and further support the role of universities in developing students with the skills to work in this manner (Summers & Volet, 2008).

Greenberg (2004) pointed out that if universities are to compete in the ever-growing competitive online higher education market, they need to realize that in the instructional realm, semesters are no longer 16 weeks, faculty are no longer the only “experts,” and the classroom is no longer time and place bound. More than 6.1 million students took at least one online class during fall 2010 - a 10.1 percent increase over the year before. Online classes are generally defined as courses where more than 80 percent of all content is delivered online, and there are typically no face-to-face meetings with instructors. (Babson Research Group, 2011)

The benefits of virtual learning and collaboration - the ability to engage students in a rich learning environment and to stimulate additional conversations and experiences - far outweigh the risks if virtual learning can be planned and designed effectively (Mindrum, 2011). This paper describes a virtual learning environment where students from Taiwan and students from the U.S. collaborated on a semester case study.

Case Study

A virtual team assessment was integrated into a graduate course in Executive Communication, a popular MBA elective that was being simultaneously taught to student cohorts in the U.S. and Taiwan. The students in both locations were required to collaborate on a case analysis that accounted for 25% of the course grade. Students were placed in teams of five and were encouraged to use collaborative communication technology, e.g., such as Skype, Google+, and email. Since case analysis can be quite a difficult task, a team-based approach to analyzing and assessing the assignment in a collaborative learning environment was adopted. A detailed explanation of the task was provided at the very beginning of the course as well as periodic reminders throughout the 8-week project.

The goals of the case assignment were a subset of the overall course goals. Specifically, the case had two goals:

Cognitive/Pedagogical - students will learn how to learn in a global classroom. To accomplish this goal, students were expected to learn to use distance education technologies, acquire team learning experience and skills, contribute sound, creative, and intellectual content to the analysis and write-up of the case, and reflect on their strengths and weaknesses as part of a GVT.

Social/Cross-Cultural - students will develop skills and learn methods that are effective in communicating across cultures. To realize this goal, students were expected to learn
basic cultural similarities and differences between Taiwanese and U.S. students, apply cultural considerations when analyzing the case and recommending a course of action, and develop relationships with colleagues from another culture.

Each team had to meet deadlines on several project (case) milestones (completion of drafts case segments). The instructor reviewed these drafts and offered feedback students could use to improve their final version. These milestones offered students the opportunity to revise and improve their work. They also allowed the instructor to monitor project progress and assess student learning, thus the instructor was able to make adjustments to teaching and facilitating accordingly. Grading was assigned for both the content of the case and the contribution of each team member to the task. The instructor used a common grading rubric to assess the creative content and writing quality of student submissions. This ensured that students in both countries received comparable grades for their efforts.

**Method**

This study employed both quantitative and qualitative data to provide more depth to the findings. The initial step was to collect demographic data on gender, age, employment status, place of study (U.S. or Taiwan), and prior access to communication technology to allow analysis of findings across the 17 different student cohorts. Using the recommendation of Lipnack & Stamps (1997) that appropriate team size should be between 3-12 people, 17 cohorts of between 5-6 students were created with the provision that country of origin was as equally dispersed as possible.

Students responded anonymously to the survey about their GVT experiences and, thus, the researchers could only generate a summary of responses. Students were asked to express their level of agreement on a number of statements about working in GVTs using a five-point Likert scale. Many statements were based on a review of the literature (Hu, 2009; Jonassen, 1999; Newman & Hermans, 2008; Scovotti & Spiller, 2011; Wilson & Stacey, 2004) which identified a number of cognitive and social learning outcomes of working in virtual teams. Such statements included “GVT discussions were useful in understanding how to respond to the case”, “The GVT’s recommended solution to the case was better than what I could have developed on my own”, and “Preparing the case analysis through the GVT was more time consuming than preparing it on my own.” Other statements reflected course objectives such as developing effective virtual teamwork skills “The GVT helped me to develop more effective virtual teamwork skills” and improving skills in using communication technology such as “Working on a GVT helped me to develop more effective electronic communication skills”.

For clarity of presentation of this data the five-point Likert scale ranging from 5 = (SA) strongly agree to 1 = (SD) strongly disagree has been collapsed to a three-point scale by combining strongly agree (SA) and agree (A) and strongly disagree (SD) and disagree (D). See Tables 1-2 for these findings. Qualitative data were also collected using open-ended questions which asked students to express what they liked most and what they liked least about the GVTs.
Findings

Seventy six valid responses from the 88 (56 students from the U.S. and 32 from Taiwan) students who completed the virtual team self-assessment were collected representing an effective response rate of 86 percent. Females represented approximately 55 percent of the respondents and males 45 percent. The average age was 24.5 years. Most of the students were employed full-time (67%) while another 22 percent were employed part-time. The remaining 11 percent were full-time students and/or were unemployed. Most of the respondents (63%) were U.S. students and the remaining 37 percent accounted for the Taiwanese students. Overall, 64 percent of the respondents had prior access to communication technology such as wikis, Skype, and Google+.

Quantitative Data

Students were asked to indicate the extent to which they agreed or disagreed with a number of statements concerning their work on GVTs. Responses were measured on a five-point Likert scale with 5 = strongly agree and 1 = strongly disagree. For the purpose of reporting these findings the responses for “strongly agree (SA)” and “agree (A)” were combined as well as for “disagree (D)” and “strongly disagree (SD)”. Thus, a three-point scale is reported (SA/A, Neutral, D/SD).

Cognitive Learning in GVTs

One of the major objectives of the GVT experience was to enhance student creativity in resolving the problem in the case. This objective seems to have been met with almost two-thirds (65.5%) agreeing that GVT discussions were useful in understanding how to respond to the case and one-half (51.1%) agreeing that the solution to the case was more creative than what they could have arrived at on their own. However, only 44 percent indicated that GVT discussions helped them write their section(s) of the case. This finding could be attributed to the time consuming nature of the project. Interestingly, the majority of students relied on email as their primary form of communication. Media richness theory (MRT) proposes that team members engage in communication in order to reduce complexity about a given task and that media differ in their ability to handle multiple, conflicting interpretations of sent information (Daft & Lengel, 1986; Daft, Lengel, & Trevino, 1987; El-Shinnawy & Markus, 1997). MRT suggests that communication media can be ranked on a richness continuum where rich media (telephone, videoconferences) are useful for complex messages while leaner media (email) are better for sharing simple and explicit information (Majchrzak, Rice, King, Malhotra, & Sulin, 2000). The basic assumption of MRT is that the richer the media, the more cues on a given task will be provided, and the more ambiguity will be reduced.

Many of the students felt that although the GVT was more time consuming (69.4%), it did help them develop more effective virtual teamwork skills (56%) and that the experience was beneficial to learning course concepts (59.3%). Over half of the students (57.6) agreed that the GVT should be used in future offerings of the course. Perceptions of the
TABLE 1. Student perceptions of the cognitive learning outcomes of the GVT (%).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree/Agree</th>
<th>Neutral</th>
<th>Disagree/Strongly Disagree</th>
<th>Mean</th>
<th>StD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVT discussions were useful in understanding how to respond to the case</td>
<td>65.5</td>
<td>15.2</td>
<td>19.3</td>
<td>3.6</td>
<td>1.0</td>
</tr>
<tr>
<td>GVT discussions helped me to write my section of the case analysis</td>
<td>44.4</td>
<td>11.5</td>
<td>44.1</td>
<td>3.1</td>
<td>1.3</td>
</tr>
<tr>
<td>The GVT’s recommended solution to the case was more creative that I could have developed on my own</td>
<td>51.1</td>
<td>10.3</td>
<td>38.6</td>
<td>2.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Working on a GVT helped me to develop more effective electronic communication skills</td>
<td>45.1</td>
<td>30.2</td>
<td>24.7</td>
<td>3.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Preparing the case analysis through the GVT was more time consuming than preparing it on my own</td>
<td>69.4</td>
<td>11.8</td>
<td>19.8</td>
<td>3.8</td>
<td>1.0</td>
</tr>
<tr>
<td>The GVT helped me to develop more effective virtual teamwork skills</td>
<td>56.0</td>
<td>29.4</td>
<td>14.6</td>
<td>3.4</td>
<td>0.9</td>
</tr>
<tr>
<td>The GVT was beneficial to my learning in this course</td>
<td>59.3</td>
<td>25.3</td>
<td>15.4</td>
<td>3.5</td>
<td>0.9</td>
</tr>
<tr>
<td>The GVT should be used for future offerings of this course</td>
<td>57.6</td>
<td>19.5</td>
<td>22.9</td>
<td>3.4</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Time consuming nature of the project may be due to how the students communicated with each other. Research by Rusman, van Bruggen, Sloep, and Koper (2010) noted that communication may not be spread equally in time. Team members often communicate sporadically in the initial phases of a project but, when facing a deadline, they can be perpetrators or victims of overload. Also, students make just be exchanging bits of information without building on each other’s knowledge, thus failing to take their team to the level of collaborative knowledge construction.

**Social Learning in GVTs**

The overwhelming majority of students (84.3%) agreed that the GVT helped them to stay in contact with other students in the course and more than half (56%) indicated that the GVT allowed them to develop closer relationships with other students in the course.
One-third (33.3%) offered that the GVT helped them to reduce feelings of isolation sometimes felt in working in virtual teams. However, approximately one-third (34.3%) of the students expressed concern over the perceived unequal distribution of work on the case analysis and agreed that they contributed more than other GVT members. The interdependence between cognitive and social factors may lead to a situation in which the GVT does not function the way it intended, even though contextual factors such as the working environment seem to be sufficient. Kerr and Bruun (1983) have shown that if teamwork is counteracted by social loafing, collaboration is unbalanced among team members. Social loafing may occur because team members’ expectations of praise for hard work decreases with increasing group size. This may occur because members feel that their contributions are less noticeable in larger groups or members perceive that the effectiveness of their efforts declines as team size increases (Latene, Williams, & Harkins, 1979). Another problem may be the free rider effect (Salomon & Globerson, 1989; Leinonen, Jarvela, & Lipponen, 2003). There may also be situations when team members do not exert maximal effort in the team or the team fails to coordinate or combine contributions of individual members.

**TABLE 2. Student perceptions of the social learning outcomes of the GVT (%)**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree/Agree</th>
<th>Neutral</th>
<th>Disagree/Strongly Disagree</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>The GVT helped me to stay in contact with other students in the course</td>
<td>84.3</td>
<td>10.8</td>
<td>4.9</td>
<td>4.0</td>
<td>0.7</td>
</tr>
<tr>
<td>The GVT allowed me to develop closer relationships with other students in the course</td>
<td>56.0</td>
<td>32.6</td>
<td>11.4</td>
<td>3.5</td>
<td>0.9</td>
</tr>
<tr>
<td>I felt that I contributed more to the GVT than other team members</td>
<td>34.3</td>
<td>46.9</td>
<td>18.8</td>
<td>3.4</td>
<td>1.1</td>
</tr>
<tr>
<td>I felt that some GVT members were too dominant</td>
<td>16.8</td>
<td>41.1</td>
<td>42.1</td>
<td>2.6</td>
<td>0.8</td>
</tr>
<tr>
<td>The GVT was an enjoyable part of the course</td>
<td>42.1</td>
<td>16.8</td>
<td>40.1</td>
<td>3.0</td>
<td>1.3</td>
</tr>
<tr>
<td>The GVT was a frustrating part of the course</td>
<td>51.9</td>
<td>30.3</td>
<td>17.8</td>
<td>3.5</td>
<td>1.1</td>
</tr>
<tr>
<td>The GVT helped reduce the sense of isolation that I sometimes feel with working with virtual teams</td>
<td>33.3</td>
<td>35.5</td>
<td>31.2</td>
<td>3.0</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Less than one-fifth (16.8%) indicated that member domination was not a problem in their teams. Slightly over one half (51.9%) of the students agreed that the GVT was a frustrating experience. Taiwanese students indicated that they were frustrated by the perceived “rudeness” of the U.S. students who did not attempt to build a personal relationship at the start of the project as well as the procrastination exhibited by several of the U.S. students; U.S. students experienced frustration mainly due to the desire of their Taiwanese counterparts to begin working immediately on the case as well as their weak written communication skills. Less than half (42.1%) of the respondents enjoyed the GVT experience.

**Qualitative Results**

Following are summaries of the open-ended comments students conveyed anonymously concerning the GVT experience. Students were asked what they liked most and what they liked least about GVTs.

**What Students Liked and Disliked About GVTs**

Responses indicated a mixed reaction to GVTs with several students indicating that it was a “valuable part of the course and an excellent way to incorporate global perspectives on the case analysis”. One student, however, did indicate that this was “the most frustrating and least enjoyable part of the course.”

The main issues identified by respondents in terms of what they liked most about the GVT experience included:

- the opportunity to develop teamwork skills and get to know individuals from another country/culture (21 students)
- the ability to apply and develop communication technology skills to a specific task (9 students)
- the international aspects of the case (3 students)

The major issues identified by respondents in terms of what they liked least about the GVT were:

- difficulty working with other students, specifically in terms of differences in work styles and lack of participation by some team members (12 students)
- difficulty in connecting with global counterparts because of language differences and time differences (12 hour difference between the U.S. location and the Taiwanese location) (12 students)
- disappearing team members (both in the U.S. and Taiwan) (5 students)
- the time the task required for only 25 percent of the course grade (4 students)
Suggestions for improving the GVT experience included the following:

- facilitating synchronous discussions (4 students)
- requiring participation from all team members (3 students)
- eliminating other course assignments to counteract the time allocated to the GVT experience (2 students)

Eleven students did volunteer that this was an excellent learning experience and that nothing should be changed. Other comments raised included offering ideas to reduce the time difference between the U.S. and Taiwan (mandatory morning/ evening meetings) and some of the cultural differences between the two classes (providing biographical sketches of students from both countries).

**Discussion**

Over the last few years the central factors and motivations behind how we work and how we learn have significantly moved toward GVTs that encourage the creation and sharing of information and knowledge. The result has been an increase in the number of organizations employing GVTs and an increase in the number of universities offering courses in virtual environments. As a result of the findings in this research, a number of strategies for the effective implementation of GVT’s are recommended. First, due to the diverse opinions on working as part of a GVT, particularly the vast investment in time, it is proposed that the experience be optional in future offerings. However, due to the potential cognitive and social learning outcomes of GVTs, students should be actively encouraged to work in some type of virtual team.

Greater direction on operating as a GVT should be provided to students, such as the need to establish group roles, assign tasks and responsibilities, and establish ground rules for participation. Further, clear criteria for evaluating the task should be provided so that students are aware that they are being graded for their contributions to the task and how they function as a GVT, not solely for the written output of the GVT experience. Research has revealed that large variations in team interaction and performance can exist between teams that do not differ in composition and assigned task (Barron, 2000). This work underscores how productive collaboration is not merely a case of putting people with relevant knowledge and skills together. Understanding the factors that make up successful collaboration is necessary.

The data revealed that GVTs appeared to function more effectively when one member of the team adopted an informal leadership role and where participation by team members started earlier in the semester and meetings were more consistent. Therefore, discussing the nomination of a team leader and the use of project planning aids such as timelines and progress reports are recommended implementation strategies. Technologies with the best chance of success in assisting virtual teams will need to increase member communication as well as help manage and coordinate their work through better dividing of tasks by location, managing dependencies among tasks that bridge locations, and synchronizing how tasks are integrated across locations (Cummings, 2011).
It is also recommended that peer evaluation be included in the evaluation process to help overcome the problem with “disappearing” team members and widely varying contributions by team members. The role of the teacher continues to be essential as research indicates that when a proactive role is adopted by the teacher, in terms of facilitating the operation of the GVT, student activity is increased and higher-order thinking is supported (Fabro & Garrison, 1998).

Today’s graduates need to develop important skills including the ability to communicate virtually across distance and time. In this study, the findings revealed that while the students did not necessarily enjoy the GVT experience, having found the case assignment to be both frustrating and time consuming, they agreed that the experience was beneficial in terms of achieving cognitive and social learning outcomes, and for enhancing skills in virtual teamwork and for using electronic communication media. Despite some drawbacks, students agreed that GVTs should continue in the course. Implications for educators include making the virtual task optional, reducing the time demands on other course assignments to offset the time needed to make the GVT a success, and providing more direction (student bios) to enhance the operation of GVTs.

References


Instructional Podcasting with Undergraduate Digital Natives

Kevin M. Thomas and Dottie Willis
Bellarmine University, Louisville KY, 40205

Abstract

This paper analyzes the use of instructional podcasts with students in introductory computer application classes at a small, independent, private university. Participants were all undergraduates in the school of education. In an effort to model effective use of instructional technology for preservice teachers and to “meet digital native students where they live,” the course instructor created podcasts to augment class instruction and create a 21st century learning environment. Focus groups were conducted to capture students’ perceptions of these supplemental podcasts. Surprisingly, the majority of these digital native participants reported that instructional podcasts were not beneficial to them because of their lack of time, lack of familiarity with the technology, resistance to using instructional technologies, preference for face-to-face instruction and reluctance to make the time commitment.

Keywords: Podcasting, undergraduate students, Net Generation, millennials, digital natives, teacher education, differentiation.

The students filling the seats in classrooms and lecture halls in college and universities today are digital natives who have never known a world without the digital tools that have come to dominate most of their lives. Having grown up with ubiquitous access to technology, these students have an intuitive use of a wide variety of devices (Oblinger & Oblinger, 2005). Computers, video games, mp3s and social media are just a few of the technologies that students use to communicate, collaborate and learn from on a daily basis. In fact, students entering college spend daily 90 minutes on the computer, 75 minutes playing video games, 44 minutes listening to their mp3 player (Rideout, Foehr, & Roberts, 2010) and 106 minutes social networking on Facebook (Junco, & Cotton, 2012). Some researchers believe that as a result of the amount of time spent using technologies digital natives have even begun to think and learn differently (Oblinger & Oblinger, 2005; Prensky, 2001; Tapscott, 1997).

One example of how digital natives differ from their predecessors in regard to learning is their preference for multitasking. Dr. Barry Adams, during his spotlight presentation at the 2010 Imagining the Future of Learning Conference, shared an encounter he had with a university student. The student was walking across campus listening to an mp3 player when Dr. Adams and a colleague stopped him. When they asked to what he was listening, the student’s response was “in which ear.” Podcasts, like the one described in this story,

1 Corresponding author’s email: kthomas@bellarmine.edu

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are an excellent technology for meeting the learning needs of digital natives because they allow them to multitask. Students can listen to podcasts while jogging, sitting at the doctor’s office or driving to school. In addition to allowing students to multitask, podcasts have been shown to have a number of instructional benefits. With this in mind, the first author created podcasts to augment course instruction with undergraduate students in the school of education. The purpose of this study was to discover students’ perceptions of the use of podcasts to enhance instruction in a 21st century classroom. More specifically, we had three study questions: 1) Did students use the instructional podcasts? 2) If so, what did student perceive to be the benefits of such use? 3) Conversely, if students did not use the podcasts, what did they perceive to be the barriers to use?

**Review of Literature**

Digital natives are identified as anyone born after 1980. Having grown up with digital technology, digital natives are believed to be more comfortable using technology than the generation of “digital immigrants” born before 1980. Prensky (2001) notes that digital natives who have spent their entire lives surrounded by and using technology have begun to “think and process information fundamentally differently from their predecessors” (p. 1). They prefer receiving information quickly, multitasking, accessing information nonlinearly and relying on communication technologies for accessing information (Kennedy, Judd, Churchward, Gray, & Krause, 2008).

One communication technology preferred by digital natives is the mp3 player. In fact, 74% of teenagers own an mp3 player (Lenhart, 2009). One use of mp3 players is for listening to podcasts. Podcasts are audio or video files, usually in an mp3 format, that can be downloaded for broadcast/listening on either a computer or more often on an mp3 player—like an iPod—thus the name podcast. Students can download school-related podcasts to their mp3 player to listen to when and where they want (Gatewood, 2008; Gay, Price & Searle, 2006). This anytime, anywhere access allows students to multitask (Rideout, Foehr & Roberts, 2010; Kennedy, et al., 2008; Prensky, 2001). For example, students can listen to an instructional podcast while riding the bus to school, exercising and/or walking to and from class. The growing popularity of 3G smart phones with internet connectivity and mp3 players further increases the accessibility of listening to or downloading online podcasts.

Podcasts can be created with free, easy to use Open Source software like **Audacity** or Web 2.0 programs like **Vocaroo**. They can then be uploaded for free to Web 2.0 applications like weblogs and wikis or placed on social networking sites like Facebook for access from anywhere with an Internet connection.

The use of podcasts by both teachers and students is rapidly gaining acceptance (Dlott, 2007; McClain, Boyle, Franks, Komoff, & Kratcoski, 2007; Putman & Kingsley, 2009; Vogt, Schaffner, Ribar, & Chavez, 2010). Podcasts have many school-related applications. For example, podcasts can be used for curriculum augmentation, professional development, supplemental material presentation and effective communication with school stakeholders—faculty, staff, community, parents (Gatewood, 2008; Hürst & Waizeneg-
ger, 2006; Norman, 2004). Teachers can use podcasts to record lectures, reviews and classroom demonstrations. Additionally, supplemental materials like video clips, interviews, and news, to name a few, can be podcasted.

This allows students to repeatedly access podcasted content as well as control both the speed and the pace of information being presented, thus allowing them to adequately process the content before more information is presented and lost (Wall et al., 2010). Teacher-generated podcasts also differentiate instruction by appealing to audio or visual learners (Gatewood, 2008) and for scaffolding and frontloading (McClain et al., 2007).

Student-created podcasts also have instructional benefits. For example, creating podcasts can increase student engagement, collaboration and motivation (Dlott, 2007; McClain et al., 2007; McLoughlin, Lee & Chan, 2007; Oliver, 2005). Creating podcasts can also improve students’ retention of information (McClain et al., 2007). Likewise, student podcasts can improve the meaningfulness of students’ learning by increasing their sense of ownership (Anderson, 2005). Ownership, in turn, can lead to improvements in students’ retention of information (McClain et al., 2007). Finally, creating podcasts often requires writing a podcast script which has been shown to improve students’ writing skills (Dlott, 2007; McClain et al., 2007).

Additionally, podcast were used with this population of undergraduates, preservice teachers because the most important component in the successful integration of technology into education has long been identified as teacher technology preparation (Culp, Honey, & Mandincach, 2003; National Council for Accreditation of Teacher Education, 1997; U.S. Department of Education, 2000). In addition to knowing how to use new technology, teachers must also understand the interplay between technology, pedagogy and content knowledge (TPCK). Faculty must effectively model the use of technology for preservice teachers (Brown & Warshaur, 2006; Vrasida & McIsaac, 2001). Therefore, this study focuses on undergraduates’ perceptions of instructional podcasting in a computer applications course required of all preservice teachers in a school of education.

**Methodology**

Focus groups were selected to answer the study’s questions for a number of reasons. First, focus groups allow for in-depth and time-efficient exploration of a topic. They also allow the experiences, attitudes and beliefs of participants to be discovered. While findings from focus groups are not widely generalizable, reliability can be achieved by conducting multiple focus groups (Grudens-Schuck, Allen & Larson, 2004). Furthermore, findings from focus groups have high “face validity” because they are actual statements from real people. In other words, focus groups measure what they set out to measure and provide faith in the collected data (Freitas, Oliverira, Jenkins & Popjoy, 1998).

**Intervention**

At the end of each class in both sections of *Computer Applications in Education*, exit slips were collected from students in both sections. Exit slips are an excellent method of
assessing students’ understanding at the end of each class and enable students to ask individual questions that they might be reluctant to pose in front of the entire class. (Fisher & Frey, 2004). Exit slips provided information regarding students’ comprehension of the day’s learning and informed the direction of instruction for the lesson to follow. The exit slips asked students a number of short questions about the day’s lesson (See Table 1).

Table 1. Sample of Exit Slip Questions.

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What did you learn today?</td>
</tr>
<tr>
<td>2. From today’s lesson, about what would you like to learn more?</td>
</tr>
<tr>
<td>3. What questions do you have?</td>
</tr>
<tr>
<td>4. Was there any part of the lesson in which you need further instruction?</td>
</tr>
<tr>
<td>5. What questions do you have about Web 2.0 (weblogs and wikis)?</td>
</tr>
<tr>
<td>6. What questions do you have about the midterm?</td>
</tr>
</tbody>
</table>

After collecting students’ responses on the exit slips, the instructor (first author) reviewed and categorized them. Any repetition of questions was avoided so as not to add time to the podcast by answering the same question twice. Participants in this study generated over 150 different questions.

After the exit slips had been collected and categorized, the Open Source audio recording and editing program, Audacity, was used to create the podcasts that answered students’ exit slip questions. Audacity is an excellent tool for creating instructional podcasts because it allows the user to pause or to stop and start over in the case of error without having to re-record the entire podcast. With Audacity, any errors can be edited after completing the recording. Each podcast consisted of the instructor reading and then answering a question posed by one or more students. Once each podcast was completed, it was exported to an mp3 format, labeled by the date of the class and saved in a “Podcasts” folder created on the online course management system, Blackboard. This allowed students to access the podcast from anywhere with an internet connection. Students were shown how to download a podcast from Blackboard so that the podcast could be placed on an mp3 player and accessed from anywhere. Podcasts ranged in duration from three to nineteen minutes; the average length was eight minutes. This procedure was completed separately for each of the two course sections. While the instructor devoted five-ten minutes to reading and sorting students’ exit slips and then an average of eight more minutes to recording each podcast, this process was still more efficient and effective for the teacher than answering individual questions through e-mail. Students could also receive answers to their questions before the next class, saving instructional time and preventing confusion.

Participants

Participants were drawn from two sections of undergraduate students taking Computer Applications in Education—a course required of all undergraduates in the school of education at a small, independent, private, university in the south. One section consisted of
20 (17 girls and 3 boys) students. All but one of the students in this class were first semester freshmen. The second section consisted of 15 (11 girls and 4 boys) students. All but three of the students in this section were first semester freshmen. Both sections were taught by the first author. All of the students in both sections completed exit slips as part of the course and had access to the podcasts on the course management system, Blackboard.

All of the students from both sections were invited via email to participate in focus groups to discuss their use of the course-related podcasts at the end of the semester. Of the 35 students in the 2 course sections, 15 (11 girls and 4 boys; 8 from one section and 7 from the other) agreed to participate in the focus groups. The fact that all of the students were undergraduates majoring in education and taking the same course helped to ensure the homogeneity of the focus groups.

Participants’ Exit Questions

The instructional podcast were designed in response to students’ exit slip questions. Analysis of the content of the podcasts revealed that students’ questions fell into three distinct groups: technical, procedural, and application of course content. Technical questions, representing 57% of the total inquiries, were related specifically to technology concerns such as the students’ own construction of podcasts: 1) “Can the file be edited outside Audacity?” 2) “Do you have to have a microphone/headset if your computer has those built in?” and 3) “How do I make sure my podcast works?” Procedural questions, accounting for 37% of all students’ exit queries, dealt solely with individual concerns about course expectations, due dates, and grading. Representative samples include “How long is the Benchmark (assignment) going to take and when should I start?” or “Are we able to turn in late assignments for partial credit?” Only six percent of all questions posed by students could be classified as application of course content. Students were attempting to make connections between content in this class and their future classrooms such as “What are specific activities we can use podcasts for in the classroom?” or “How could you use podcasting with a math lesson?”

Data Collection

In order to accommodate students’ schedules, five focus groups were conducted over the course of a week in a neutral conference room in the school of education. Group sizes ranged from two to five participants. Multiple focus groups on the same topic also provide a cross section of perceptions on the topic which helps ensure reliability (Grudens-Schuck, Allen & Larson, 2004). Informed consent was gathered from participants at the beginning of each focus group.

The focus groups were facilitated by a skilled moderator. A set of guiding questions was developed for the interviews. These questions were developed based on the research questions, the review of literature and an initial analysis of students’ exit slip questions over the course of the semester. However, a “funnel approach” was used in questioning. This approach begins with initial broad questions and moves to more specific questions based on participants’ responses (Morgan, 1996). Each of the five focus groups lasted
roughly one hour and was video- and audio-recorded. Additionally, the facilitator kept notes on students’ comments.

**Data Analysis**

Analysis of the data began immediately after the end of the focus groups. Two forms of data analysis were used: qualitative summary and systematic coding through content analysis. The qualitative summary focused on the direct comments from the group discussions; whereas the content analysis focused on numeric description of the data (Freitas, Oliverira, Jenkins & Popjoy, 1998). This was accomplished through transcribing the recorded discourse from the focus groups. Then, the transcribed discussions were poured over to identify emerging themes from the multiple focus groups. Finally, transcribed discussions and emerging themes were corroborated with the moderator’s notes.

**Findings and Discussion**

Findings revealed that 66-six percent (10/15) of the focus group participants did not believe the instructional podcasts were beneficial. Surprisingly, students in the focus groups reported accessing the podcasts, on average, only once. Students reported a number of reasons for this belief. The number one reason students cited for not utilizing the podcasts was a perceived lack of time. Students also acknowledged a basic unfamiliarity with the technology—podcasting. Additionally, students expressed a reluctance and/or resistance to several technologies, including podcasts. Finally, students admitted a preference for face-to-face instruction. Each of the reasons students identified as barriers for adopting the use of the course podcasts will be explored further in the sections below.

**Lack of Time**

Students offered a number of time-related reasons for not using the podcasts more. Students stated that they did not have the time to access the podcasts. As one student noted, “A lot of times I forgot about it. It was an outside of class type of thing and once I get out of class I am busy. It just got pushed to the side.” Other students felt there were too many steps involved in accessing the podcasts. A student commented that she had to “go to Blackboard, then the discussion board and figure out which one it was and download it onto my computer and open another file with windows media player.” Other undergraduates also felt it was just one more place they had to go to get information, and they “could not remember to go and access them.” Many students felt the podcasts were too long, and they would get bored or “space out” while listening and waiting for their question to be answered or for information that they found relevant. While lack of time is a common barrier to adoption of instructional technologies (Ertmer, 1999), one of the purported benefits of instructional podcasts is their ability to allow students to save time by accomplishing multiple activities at once—multitasking (Rideout, Foehr & Roberts, 2010; Kennedy et al., 2008; Prensky, 2001). The potential for multitasking with podcasts was noted by one student who commented that “Usually I do podcasts in my car. But I am in a dorm. Maybe if I was a commuter I would use it more.” However, overall, the partici-
pants did not find the podcasts to be useful for saving time by multitasking. Rather, they perceived use of podcasts to be overly time consuming.

In the discussion of time as a barrier, it is important to note that the podcasts were on average only eight minutes long. Allowing for the amount of time it takes to login into Blackboard, go to the podcast folder and click on the dated podcasts, this would appear a small time commitment in contrast with the average total of three hours per day that students in focus groups reported spending on their computers - mostly multitasking between social networking and school work. Perhaps the barrier was one of priority. Based upon their reflections in focus groups, participants did not perceive these podcasts to be sufficiently beneficial to commit the time to accessing and listening to them.

Unfamiliar with Technology

Participants in this study also attributed their lack of use of instructional podcasts to their unfamiliarity with the technology. In fact, sixty-six percent of the students in the focus groups acknowledged that prior to participation in the study they were unfamiliar with podcasts and reported that they used their mp3 players primarily for entertainment - listening to music.

Although contrary to the popular image of the technology savvy “digital native,” this finding supports a growing body of literature that reveals “digital natives” may be less technologically savvy than previously thought and that their technological skills vary greatly. The use of exit questions at the end of each computer application class may have actually encouraged some students to ask fundamental questions about technology that digital natives would be expected to know: 1) Can you put music in a podcast? 2) What is software? 3) How do I save to a USB thumbdrive?

Like the students who engaged in the focus groups for this study, many digital natives understand a limited number of applications—texting, instant messaging, social networking and downloading music but are unfamiliar with many other technologies (Kennedy et al., 2008; Lei, 2009; Bennett, Maton & Kervin, 2008). And while most digital natives own mp3 players, they are still unfamiliar with podcasts (Kennedy et al., 2008; Cameron, 2005; Fernandez, Simo, & Sallan, 2009). In fact, only 26% percent of digital natives have downloaded a podcast (Zickuhr, 2010). However, all of the students in this study were familiar with podcasting. As part of this computer applications course for students in the school of education, they were assigned course readings about the instructional uses of podcasts. Afterwards, they even created their own instructional podcasts. In fact, the podcasts that they created for this course were required to demonstrate a student-centered use of podcasting in their future classrooms.

Reluctance and Resistance to Some Technologies

Many of the participants indicated that not only did they not find the podcasts in this course beneficial, but they did not see any instructional benefit for podcasts. For example, one participant felt the static nature of the podcasts was not well suited for instruction: “If
the student was to ask a question and the teacher would answer it the way that he thought was the answer but it was not what I was looking for there would have been no way for me to re-ask the question.” While such a negative response was particularly disconcerting for the instructor since the participants had created their own instructional podcast as part of the course, it was also supported by other research. In a more comprehensive study at a large northeastern university, Lei (2009) also found students did not perceive any instructional value in podcasts. Additionally, 40% of 2,120 student participants in a study by Kennedy et al. (2008) were either uncertain about or resistant to using podcasts in their learning.

Participants’ resistance to the use of technologies to support instruction was not limited to podcasts. Although all the participants in the focus groups “supported” the use of technology by their professors, they did not see the instructional value of a number of additional technologies. In this introductory computer application class for future teachers, students indicated that they did not support the use of social networking—Facebook—or cell phones—texting—for instructional use. Also, many of these participants stated that they would not take an online course. Several participants in the focus group even expressed a concern that students can become too dependent on technology. Again, this sentiment is echoed by other research studies which found that students worry that they might begin to rely too heavily on technology and that technology should be used in moderation (Lei, 2009; Kennedy et al., 2008).

These findings, like those of Cameron (2005) may suggest that the participants in the focus groups are still not the complete “digital natives” touted in much of the literature because of their resistance to the use of technology for instructional purposes, specifically online learning, as well as their unfamiliarity with some technologies.

**Preference for Face-to-Face Instruction**

Focus group participants also stated that a barrier to use of the instructional podcast was a preference for face-to-face, personal instruction. Participants wanted their questions to be answered in the classroom by their instructor. As one participant stated, “I would rather be in the same room with the person; I would have more of a connection. I could ask questions.” Another participant supported this comment, “I didn’t feel like I was interacting with people and I was getting the one-on-one with the professor.” Similar to participants’ perceptions in the studies of Lei (2009) and Kennedy et al. (2008), participants in the five focus groups valued traditional instruction and ways of learning, although they agreed that their professors should use technology. In consideration of this finding, it should be noted that the participants in this study attend a small university that promotes itself as having small class sizes and small student-to-teacher ratio. University literature promises that students will not be taught by graduate assistants and students will get to know their professors personally. Many students select our small university precisely because they desire that type of personal instruction and interaction.
Limitations and Considerations for Future Research

A number of limitations should be considered when interpreting data from this study. For example, it is important to recognize the limitations in regard to generalizability. The participants in the study were taken from the school of education in a single, small university in the south. The focus groups were also made up of a small number of participants. Therefore, findings from focus groups are not considered to be readily applicable to the larger populations. Additional limitations include the fact that participants self-reported; therefore, what they reported may not be consistent with their actual experiences. Furthermore, the group environment of the focus group can result in a “group think” that is also inconsistent with individuals’ actual experiences. However, focus group findings do provide a “snap-shot” of this particular group’s reality—in this case undergraduate digital natives’ perceptions of teacher-generated, instructional podcasts.

Taking this into consideration, additional research should be conducted to answer a number of questions raised by the findings from the participants in these five focus groups. For example, how can teacher educators who purposefully integrate twenty-first century technologies into their instruction overcome students’ resistance to these new pedagogical tools? Based on the fact that only six percent of students asked exit slip questions related to the authentic application of course content, how can university instructors more effectively model and encourage undergraduates to connect college course material to the implementation in their future professions? Another relevant question to be answered is whether students enrolled in large laboratory classes or students attending a larger university might respond more favorably to instructional podcasts designed to answer their individual questions? If these “digital natives” found podcasts less than user-friendly, what other form of technology would they be more likely to choose to support their learning? Furthermore, almost every student participating in this study was a first semester freshman making a transition to college expectations and demands. Would seniors or graduate students or classroom teachers be more responsive to the use of instructional podcasts as a pedagogical tool to augment and/or differentiate instruction?

Conclusion

The purpose of this study was to utilize instructional technology in order to model best practices for using emerging technologies and to meet the needs of digital-native students; however, despite literature on digital natives that professes their affinity for technology, the undergraduate students in this study preferred not to use instructional podcasts. Students reported not using the podcasts because of a lack of time and unfamiliarity with the technology. Surprisingly, they also expressed a resistance and/or reluctance to the use of this technology for instruction and a preference for face-to-face learning. Despite these findings, the authors will continue to work to identify and to model additional uses of podcasts and other instructional technologies because of the growing body of research that demonstrates their instructional viability including their potential to differentiate instruction in 21st century classrooms.
References


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Understanding How and Why College Students Engage in Learning

Twila Lukowiak¹ and Jana Hunzicker

Bradley University, Peoria, IL 61625

Abstract

Part of a larger research project, this article presents a phenomenological self-study exploring the qualities of student engagement that occurred in one professors’ college classroom over two semesters’ time. The purpose of the study was to better understand college students’ engagement in learning utilizing a reflective, data-based process. The study piloted a modified Instructional Practices Inventory (IPI) data collection process using a peer observation format. In addition to IPI codes and anecdotal notes, data collection included professor/investigators’ written reflections, student course evaluations, and a student focus group. The study addressed two research questions: 1) How do college students engage in learning? and 2) Why do college students engage in learning? College students in the study engaged in learning most often when they paid attention, participated actively in discussion, and used higher order thinking to complete class assignments. They were motivated to engage in learning when they viewed information, activities, and assignments as relevant, felt emotionally connected to the course content, and experienced positive interactions with their professor.

Keywords: Heuristic phenomenology, higher education, Instructional Practices Inventory (IPI), peer observation, student engagement in learning, written self-reflection.

“As an assistant professor, I strive to model best teaching practices for the future teachers in my classroom, but more importantly I want my students to learn. I know a lot about effective teaching, but I also know I have room for improvement. No matter how well prepared I am for my classes, there are days when I notice students glancing frequently at their watches, surreptitiously checking their e-mail, or worse, nodding off. Even on days when they seem interested and actively involved, I can’t know for sure my students are fully engaged. I might leave the classroom feeling good, based on a few generalities about what went well and why, but in reality I might be kidding myself.” ~ Twila, second year assistant professor, August 2009

Student engagement in learning is closely related to effective teaching. Research shows that student engagement in learning is likely to increase when teachers use instructional time efficiently (O’Neil, 1995), connect classroom learning to real life, practical experiences (Brewster & Fager, 2000; Hancock & Betts, 2002; Lumsden, 1994), and allow student choices regarding what and how to learn (Anderman & Midgley, 1998; Martin, 2003; Schlechty, 2001). Teachers can further increase student engagement by actively

¹ Corresponding author’s email: tlukowiak@bradley.edu

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involving students in collaborative problem-solving that requires higher-level thinking (Gavalcova, 2008) and providing constructive, descriptive, and timely feedback (Stiggins, 1999; Strong, Silver, & Robinson, 1995). In our own college classrooms, we found that brisk pacing and instructional variety, paired with a balance of higher order, student-centered activities and teacher-led activities effectively engaged students in learning (Hunzicker & Lukowiak, 2012).

Even in light of the research, an overwhelmed, second year assistant professor like Twila may ask, why exert all this effort? But the answer is clear: Research shows that student engagement in learning helps students retain information (Dowson & McInerney, 2001; Hancock & Betts, 2002), internalize concepts (Newmann, 1992), and develop an appreciation of lifelong learning (Shulman, 2002).

Although teachers can take a variety of actions to increase student engagement in learning, students themselves make the choice of whether to engage or not. The purpose of this study was to better understand college students’ engagement in learning utilizing a reflective, data-based process.

**What is Student Engagement in Learning?**

Some education professionals depict student engagement in terms of demonstrating appropriate classroom behaviors and displaying a positive disposition. According to Skinner and Belmont (1993):

> [Students] who are engaged show sustained behavioral involvement in learning activities accompanied by a positive emotional tone. They select tasks at the border of their competencies, initiate action when given the opportunity, and exert intense effort and concentration in the implementation of learning tasks; they show generally positive emotions during ongoing action, including enthusiasm, optimism, curiosity, and interest (p. 572).

Similarly, according to Bomia et al. (1997), student engagement occurs when students exert “willingness, need, desire and compulsion to participate in, and be successful in, the learning process” (p. 294).

Jones, Valdez, Nowakowski, and Rasmussen (1994) identify higher order activity as another characteristic of student engagement in learning. In their view, students demonstrate engagement by applying previously acquired skills to creatively solve problems in collaboration with their peers. According to Valentine (2007), student engagement in learning is characterized by “active conversations that construct knowledge… are not teacher dominated…. [and] higher-order thinking is evident” (p. 1, Student Learning Conversations (5)). Additionally, students engage in higher-order learning through activities such as “authentic project work, cooperative learning, hands-on learning, problem-based learning, demonstrations, and research” (Valentine, 2007, p. 1, Student Active Engaged Learning (6)).
These descriptions indicate that student engagement in learning requires a combination of behaviors, motivation, and higher order activity. For teachers such as Twila, who are working to increase their teaching effectiveness, analyzing the quality of student engagement in learning provides useful information for better understanding how and why college students choose to engage in learning.

**Analyzing Student Engagement in Learning**

As explained in our first publication about this study (Hunzicker & Lukowiak, 2012), Instructional Practices Inventory (IPI) is one process for conducting structured classroom observations for the purpose of assessing student engagement in learning. IPI was created by Drs. Jerry Valentine and Bryan Painter in 1996 for implementation in P-12 schools (Valentine, 2009a). IPI is defined as “a process for collecting valid and reliable data teachers would view as fair and accurate and be willing to use as a basis for reflection and change” (Valentine, 2005, p. 5). During the IPI process, qualified data collectors proceed throughout a school observing in various classrooms for brief intervals of time, coding the observed quality of student engagement according to the following 6-point rubric (Valentine, 2007). IPI codes 6 and 5 are characterized by student centered, higher order thinking, activity, and/or discussion. IPI code 6 involves active engagement in a task, performance, or project, whereas IPI code 5 signifies interactive, student-to-student discussion. IPI code 4 denotes anything teacher-centered (e.g. lecture, directions, discussion-leading) and may or may not engage students in higher order efforts. IPI codes 3, 2, and 1 do not engage students in higher order efforts. IPI code 3 recognizes non-higher order activity in which the teacher is involved with students at the time the code is recorded. IPI code 2 signifies that the teacher is not involved with students at the time the code is recorded, and IPI code 1 signifies that students are completely off-task.

The IPI coding system is designed to recognize the wide range of student engagement that occurs in a classroom setting, yet it supports the belief that student centered activities requiring higher order efforts are more engaging than teacher-centered activities or activities that do not require higher order efforts (Valentine, 2009a). Even though all IPI levels of student engagement can be applicable, activities reflecting IPI codes of 5 or 6 are more likely to engage students in learning.

When using IPI in P-12 schools, strict protocols are followed to maintain validity and reliability (Valentine, 2009b). To begin, only trained data collectors are authorized to use the IPI process. Also, data collectors focus on the first activity they see upon entering the classroom so a random sample may be established. In classrooms where several activities are happening at once, data collectors must consider what the majority of students are doing, asking questions when necessary. Finally, in order to place codes in context, data collectors record a code and then often write brief anecdotal notes describing the activity (Valentine, 2007a).
Research Problem, Purpose, and Questions

Research indicates a positive relationship between student engagement in learning and student academic achievement (Dunleavy & Milton, 2008; Lalley & Miller, 2007; NSSE, 2010). Despite a decades-long dip in college student engagement during the early 2000s (Koljatic & Kuh, 2001), levels of student engagement in learning are beginning to improve due to more effective educational practices (“Wide Range of Colleges,” 2009). Specifically, student engagement can be increased through classroom observation and performance feedback, paired with willingness on the part of the teacher to make changes (Colvin, Flannery, Sugai, & Monegan, 2009).

Part of a larger research project (Hunzicker & Lukowiak, 2012), this article presents a phenomenological self-study exploring the qualities of student engagement that occurred in one professors’ college classroom over two semesters’ time. To better understand college students’ engagement in learning, the study addressed two research questions:

1) How do college students engage in learning?, and
2) Why do college students engage in learning? Toward this end, a heuristic phenomenological approach was employed.

Methodology

Phenomenological inquiry is pursued to deepen understanding of common human experiences, such as student engagement in learning, for the purpose of informing improvement in practices or policies (Creswell, 2007). After collecting data from several people who have experienced the phenomenon under study, data analysis involves reducing the information to significant quotations or segments of text and identifying themes that convey various meanings of the phenomenon (Creswell, 2007; Moustakas, 1994).

Heuristic Phenomenology

This study takes the form of heuristic phenomenology, also known as heuristic inquiry. Heuristic inquiry begins with a question or challenge that engages the researcher in self-inquiry for the purpose of better understanding oneself and/or one’s world (Morse & Richards, 2002; Moustakas, 1994). It requires the researcher to occupy a dual role of investigator/research participant, which makes the approach subjective. Because heuristic inquiry is subjective, the researcher should clearly articulate personal assumptions, beliefs, and life experiences that might influence interpretation of the phenomenon under study (Grbich, 2007). Two strategies for accomplishing this are bracketing and memo writing.

Bracketing is “a reflective process by which opinion and prejudice are suspended to focus attention on what is essential in the phenomena” (LeVasseur, 2003, p. 411). LeVasseur (2003) explains that after bracketing one’s usual way of viewing the world, phenomenological researchers should embrace a reflective and questioning stance. While bracketing takes place at the beginning of a study, memo writing occurs throughout data collection.
and analysis. Memos are “the researcher’s field notes recording what the researcher hears, sees, experiences, and thinks in the course of collecting and reflecting on the process” (Groenwald, 2004, p. 13). To increase objectivity, researchers should track their changing assumptions and developing insights throughout a research project (Morse & Richards, 2002; Quaye, 2007). Debriefing frequently with colleagues or supervisors can support this process of articulating and refining one’s beliefs, assumptions, and life experiences as they relate to the phenomenon under study (Grbich, 2007).

The final product of phenomenological inquiry is a composite description, which describes the meaning or “essence” of several individual’s lived experiences by describing what all have in common (Creswell, 2007). This creative synthesis represents the lived experiences of both the research participants and the researcher by describing what participants experienced and how they experienced it as well as questions, problems, and issues that reflect the interests of the researcher (Moustakas, 1994).

Research Methods

Research Participants and Co-investigators

Interested in better understanding student engagement in learning within her own college classroom, a college professor at a private, Midwestern university (Twila) collaborated with a colleague (Jana) to conduct a phenomenological self-study. Twila served dually as the study’s co-investigator and primary research participant. Jana served in the roles of methodologist, peer observer, and focus group facilitator.

College students enrolled in an introductory course about curriculum adaptations for students with exceptionalities, taught by Twila during the fall 2009 and spring 2010 semesters, served as secondary research participants. Thirty students were enrolled during the first semester; 15 were enrolled during the second semester. All secondary research participants were education majors, all held college sophomore, junior, or senior status, and all were of traditional college age (i.e. 18-24). Of the 45 secondary research participants, five were male and 40 were female.

The co-investigators explained the study to students on the second day of classes, making it clear that student participants were not required to do anything differently than usual, individuals would never be singled out, and participation in the study would not affect course grades. One hundred percent of the students in both classes agreed to participate in the study.

Data Collection

Initial data collection included classroom observations, professor/investigator written reflections, and student course evaluations.

Classroom observations. The Instructional Practices Inventory (IPI) rubric and protocols, introduced earlier, were used to structure the classroom observations. Seven obser-
vations were conducted per semester, each lasting the entire 75-minute class period. Using a peer observation format, an IPI code was recorded every five minutes. The peer observer also made brief anecdotal notes for each IPI code. Thirteen to 15 codes were collected during each observation, rendering roughly 100 codes, supported with anecdotal notes, each semester. Within three days of each classroom observation, Jana provided Twila with a copy of the IPI codes and anecdotal notes.

**Written reflections.** To ensure that data were collected from multiple sources (McKinney, 2007; Morse & Richards, 2002), Twila engaged in written reflection following each classroom observation. The written reflections were structured by three questions:

1) What instructional activities were successful in engaging students? Why?
2) What instructional activities were not successful in engaging students? Why?
3) What can I do to increase students’ level of engagement during future class sessions?

Twila also engaged in written reflection, particularly memoing, during data analysis. These memos were also used as data.

**Student course evaluations.** Additionally, at the end of each semester, numerical and narrative data related to student engagement in learning were collected through student course evaluations. Students were asked to respond to three rated items using a 5-point Likert scale:

1) This course/practicum provided a valuable learning experience.
2) Class/practicum time was well spent.
3) The faculty member stimulated interest in the subject matter.

In addition, they were encouraged to write open-ended comments in response to the following prompt: Method of instruction (i.e. lecture, assignments, case studies, etc.) Although students were given the option to have their course evaluation responses excluded from the study, 100% allowed the co-investigators to use their responses as data.

**Data Analysis**

Data analysis was guided by two research questions. QSR Nvivo qualitative research software was used to facilitate data analysis. A recursive, four-step coding process was used: descriptive, topical, and analytic coding followed by refining the codes through questioning (Morse & Richards, 2002). Descriptive codes included IPI codes of 1-6, the date data were collected, and the type of data collected (e.g., anecdotal notes, written reflection, etc.). Topical codes included the categories of teacher, student, activity, and other. Analytic codes included high engagement, low engagement, and neutral.

**Student focus group.** To supplement the student responses provided by all research participants via the end-of-semester student course evaluations, initial data analysis was presented to a focus group of six students from the two observed classes. During the spring
2011 semester, all secondary research participants were invited to participate. The first three students from each class to respond to an email, inviting participation, were selected as participants. All six selected participants were in attendance. The averaged final grade of the focus group was 96%, compared to 92% for both the fall 2009 and spring 2010 classes.

The focus group was convened and led by Jana, who also conducted the classroom observations. Twila was not present, nor did she know which students were participating in the focus group. Following presentation of the data analysis, students were asked the following questions: 1) Based on your experience as a student in this class, is our analysis of student engagement accurate? Why or why not? 2) What have we missed, or forgotten to consider? 3) What other thoughts or ideas do you have about student engagement in today’s college classrooms? Discussion was tape recorded and transcribed by Jana. Student confidentiality was protected through use of pseudonyms.

**Twila’s Beliefs about Student Engagement in Learning**

As mentioned earlier, bracketing decreases subjectivity and establishes a context for interpreting the assumptions, beliefs, and expectations of the research participants (Grbich, 2007; LeVasseur, 2003; Morse & Richards, 2002). In July 2010, prior to the data analysis phase of the study, Twila bracketed her beliefs about student engagement in learning:

To begin, I believe that the teacher, more so than the students, is responsible for creating a classroom environment that engages students in learning. I also believe assignments and activities requiring application, problem solving, and/or creativity are more likely to engage students. Additionally, student engagement in learning occurs when both teacher and students are invested in the content, the learning process, the desired learning outcome(s), or a combination of the three. Moreover, student engagement in learning is supported by teacher knowledge of content and pedagogy. When students view the teacher as a credible source of information, they are more likely to engage in learning. Furthermore, when the teacher finds ways to make learning exciting, even reluctant learners are more likely to engage. Finally, student engagement is supported by a positive working relationship between teacher and students, or a classroom culture of mutual respect. Such classroom culture balances high expectations and hard work with flexibility and entertainment.

With Twila’s beliefs about student engagement in learning explicitly stated, we now proceed to the study’s findings.

**Findings**

Findings of this study are presented through composite descriptions of the teaching and learning activities that occurred in Twila’s college classroom during the fall 2009 and spring 2010 semesters. The descriptions reflect the perceptions of Twila and her students, as well as the co-investigator, who conducted the classroom observations.
Student-led Presentations and Chapter Quizzes

IPI code 3 represents students working while the teacher assists or monitors. Classroom activities coded 3 vary in degree of teacher or student centeredness, but do not engage students in higher order efforts. During the fall semester, 28% of Twila’s class time represented activities such as student-led presentations and chapter quizzes. In the spring, Twila’s class time reflected these activities 36% of the time.

Student-led presentations. During fall and spring semesters, one required assignment entailed students working together in pairs to present a textbook chapter and create an interactive activity to enhance understanding of the chapter content. Valuing this assignment, Twila reflected in March 2010: “All students were very focused on presenters and participated in note taking activities. This presentation was of the highest quality and a great learning experience for all.”

However, students’ evaluations of the assignment generated mixed results. Ten students wrote comments referencing the student-led presentations, and seven comments expressed unfavorable opinions about the assignment, stating the presentations were “boring” and “took a lot of time.” Conversely, three comments were positive including, “Chapter presentations are good practice for future teachers.”

Information acquired from focus group members painted a clearer, more comprehensive picture of students’ opinions concerning the student-led presentation assignment. One student suggested the assignment would have been “more exciting and more engaging” if Twila had instructed them to use the presentations as practice for teaching. Another student voiced dissatisfaction with the student-led presentations: “I was disgruntled to hear somebody give their rendition on the chapter when they may not have fully understood it themselves.”

Indeed, most students did not view the student-led presentations as relevant. Students are more likely to remember what they have been exposed to in the classroom when the assignments are both authentic and meaningful to the student (Hancock & Betts, 2002). Moreover, teacher clarity supports student engagement (Pascarella, Edison, Nora, Hagedorn, & Terezini, 1996). Reflecting on ways to improve this assignment, Twila wrote, “If I had been clearer in my original purpose, which was for students to practice teaching, the value of the assignment would have been more apparent.”

Chapter quizzes. Twila assessed students’ content knowledge of textbook chapters by administering six quizzes each semester. Chapter quizzes were comprised of ten multiple choice and true/false questions. Several students disliked the quizzes and voiced their opinions orally and on the course evaluations. On the course evaluation, one wrote, “If the students teach the lesson, they should make the quiz.” Conversely, some students appreciated the quizzes as a learning tool: “Quizzes were very helpful in learning content and studying for the test.” The focus group clarified that students felt the quizzes were based on “minute details” rather than “big ideas.”
The format of the chapter quizzes did not require students to utilize higher-order thinking skills, but merely required memorization of basic information. According to the National Research Council (1999), students become more engaged when required to provide reasoning and justification for concepts presented. Twila’s quizzes did not require students to evaluate or synthesize information, therefore producing lower rates of student engagement and approval.

**Lecture and Discussion**

IPI code 4 represents teacher-led instruction, which may or may not involve student engagement in higher order efforts. In Twila’s classroom, code 4 activities included lecture and teacher-led discussion, occupying 39% of class time during the fall semester and 24% during the spring semester. IPI code 5 distinguishes teacher-led, whole class discussion from students engaged in higher order discussion with one another. In Twila’s classroom, student-to-student higher order discussion was coded 20% of the time during the fall semester and 27% of the time in the spring.

**Lecture.** To vividly illustrate concepts from the course textbook, Twila often shared personal stories about her experiences as a special education teacher and parent of a child with an exceptionality. She often expressed painful, genuine feelings. In October 2009, she reflected, “In sharing a story about my son’s academic struggles, I became overwhelmed with emotion and shed tears. After that incident my students viewed me as a real person.” Students in the focus group appreciated the real life stories Twila incorporated into lectures. One student commented, “She made lectures more personable and we could relate to it. That is something that makes students more engaged.” One recent study confirms that using personal stories during lectures increases students’ interest levels (Trim, 2010).

During another class session, Twila presented excerpts from *Christmas in Purgatory*. Written by Burton Blatt and Fred Kaplan in 1965, this book describes the authors’ visits to numerous institutions in the United States which housed individuals with intellectual disabilities. *Christmas in Purgatory* contains explicit descriptions of living conditions, and photographs depicting treatment of these individuals.

The lecture incorporating *Christmas in Purgatory* not only evoked emotion in students, but in Twila herself. Her voice quivered several times throughout the lecture and she struggled to maintain her composure, especially when reviewing the treatment of children in these institutions. Twila believes this lecture engaged students because she, as their teacher, conveyed passion and emotion.

Twila also frequently incorporated video clips into her lectures. For example, after discussing the devastating effects of bullying, she presented a clip depicting the possible end result of repeated episodes of bullying on students. She believed topics such as bullying became more authentic when students viewed videos depicting actual life experiences. Hoover (2006) agrees that utilizing video and audio clips enhances student engagement in
learning by capturing and maintaining students’ attention.

According to Twila’s course evaluations, students considered her highly effective in capturing and maintaining their attention during class time. Students from both semesters described her lectures as “highly emotional” and “captivating.” One student wrote, “She constantly had my attention in every aspect of presenting information.” Overall, students rated her ability to stimulate interest in the subject matter 4.90/5.00 during the fall semester and 4.93/5.00 in spring.

**Discussion.** Twila engaged students in whole class and small group discussions during both semesters. Students actively discussed various topics 40 times during the fall semester and 33 times in spring. To facilitate discussion, Twila carefully selected brief, often controversial, reading selections, directed students to discuss the readings in small groups, and then engaged the entire class in discussion. She created an atmosphere accepting of differing viewpoints and encouraged each student to participate. Research confirms that student participation in discussion is likely to increase when teachers are supportive (Armstrong & Boud, 1983) and provide reassurance and praise (Hyde & Ruth, 2002).

In response to such readings, most students participated in discussion enthusiastically and voiced opinions openly. In May 2010, Twila reflected:

> I was impressed with how students in the spring semester voiced their opinions on certain topics, even if sometimes their views were unpopular with peers. Large group discussions provided students opportunities to be heard and their views respected. Discussions were a tool to help build students’ self-esteem and self-efficacy. Voicing one’s opinions - especially if not popular - takes courage.

During the focus group, students confirmed that the discussions of case study scenarios were constructive and rewarding. One student commented, “I think when you get right down to a real life situation with real people and a real problem that you’re trying to solve, that makes it much more likely that I will get excited about trying to figure it out.”

Twila also incorporated an assignment which required students to select, read, and critique three self-selected journal articles. Twila guided the assignment by providing potential topics, a list of journals, and the scoring rubric. On three separate occasions, students shared their critiques with peers in small group settings. Each student was provided one minute and thirty seconds to review his or her article and answer questions from peers.

IPI notes written during the spring semester captured one such instance of students sharing their critiques with peers: “Small group discussion around articles. Three to four per group. One person presents; others listen and comment. All students seem highly engaged.” Twila attributed students’ engagement to having “little to no time to participate in off task behaviors” due to the brief timeframe and her close supervision.
Twila’s practice of allowing students to select their own articles is supported by research. Wade (1994) confirms that when students decide what to discuss, their interest increases and they are more likely to engage in both listening and speaking roles. Twila also believed that providing students with limited time to complete the article critiques would keep students on task, but quite the opposite was true. Opinions obtained from students during the focus group revealed the brief timeframe may have impeded student learning.

One student commented:

I remember actually saying at one point, ‘It’s great to share these articles’, but we went so fast that I didn’t get enough information to even think about it. I don’t know if it was engagement because I just had no time to *not* be engaged.

Upon reflection, Twila acknowledged her quest to maintain a quick pace to keep students’ attention may have unwittingly kept them from fully comprehending information.

**Higher Order Efforts**

IPI code 6 represents active student engagement in higher order efforts, often through completion of challenging projects. The teaching and learning activities in Twila’s classroom involved higher order efforts 14% of the time during the fall semester and 13% of the time during spring.

**Curricular adaptation project.** Most of the IPI codes recorded as 6 reflected various stages of a long-term project, which was completed in student pairs. The first phase required students to write a profile of an individual with an exceptionality receiving the majority of educational services in a general education classroom. The second phase involved writing a general education lesson plan for a core academic subject, and the third phase required students to modify the lesson plan to meet the academic, social, and emotional needs of the profiled student.

The following anecdotal IPI notes, written in March 2010, depict the high level of student engagement experienced by students as they worked on the project:

2:25: Most online viewing the assignment, revising their work, or researching. Twila consults with another group. One hundred percent on task.
2:30: Almost all groups are drafting or revising. Twila meets with a third group.
2:35: All groups are still on task. Most are drafting or reviewing. One group appears to have stopped for the day, but one of them is viewing pictures from *Christmas in Purgatory*.
2:40: All groups are still on task! Twila is meeting with another group.
2:45: All groups are still working. Twila never dismisses class. Students begin trickling out at about 2:50 p.m. – five minutes after class is officially over.

Two students wrote comments directly referencing the curricular adaptation project. The first commented, “I loved the variety of assignments such as the curricular adaptation..."
project, case study, journal critiques, as well as in-class group activities.” Another student wrote, “I enjoyed the case study we did and adapting the lesson for the curricular adaptation project.”

According to the student focus group, the curricular adaptation project was beneficial, but additional opportunities to practice adapting lessons would have been better. One student commented, “I feel there should have been more projects practicing how to make adaptations, and then maybe students could incorporate moving around to different groups and doing that with different people.” Several others affirmed this opinion.

According to Lucas (1990), engagement increases when teachers employ hands-on, practical activities and decreases when students are allowed to remain passive. Student engagement in learning was high when students were working collaboratively to complete the three-part curricular adaptation project. Twila attributed this to students practicing skills they realized they would need to perform well in their future classrooms.

Discussion

College students in the study engaged in learning most often when they paid attention, participated actively in discussion, and used higher order thinking to complete class assignments. They were motivated to engage in learning when they viewed information, activities, and assignments as relevant, felt emotionally connected to the course content, and experienced positive interactions with their professor.

How Do Students Engage in Learning?

Attention. Optimal learning occurs when the teacher captures students’ attention and piques their motivation for learning (Gagne, Briggs, & Wager, 1988; Ericksen, 1978). Twila was particularly successful in gaining students’ attention by sharing personal stories related to her experiences as a teacher and parent of a child with a learning disability. According to Gigliotti (1995) and Van Dokkum (1995), providing information to students in an entertaining manner fosters interest and engagement.

Twila also maintained students’ attention by incorporating a variety of class activities that required active participation. Comments written on course evaluations revealed that several students appreciated the diverse activities Twila incorporated into classes. One student wrote, “There was never a dull moment in this class and the material was taught with a mixture of instructional methods.”

Student engagement in learning increases when professors initiate activities that require active student participation (Lucas, 1990). Moreover, professors can promote student engagement in learning by discouraging off task behaviors during class time. During the focus group, one student revealed her thoughts concerning how professors can prevent students from participating in off task behaviors:

Sometimes there are classes you can drift through without participating. There
are other classes where the activities and the way they’re planned make it impossible to get through the class without saying a word. I think a lot of those environmental and planning factors are entirely within the professor’s control.

If professors allow us to sit quietly in class, most students will multitask. So they need to make it difficult for us to do that.

**Active participation in discussion.** Active participation in whole class and small group discussion also indicated student engagement in learning for the college students in this study. In the IPI anecdotal notes and reflections, the words “spirited” and “lively” were used to depict discussions that occurred in Twila’s classroom.

According to Hockings, Cooke, Yamashita, McGinty and Bowl (2008) heightened engagement occurs when students have opportunities to share information, viewpoints, and experiences with peers. Furthermore, professors must be watchful to ensure all students participate (Fritschner, 2000; Howard, James, & Taylor, 2002). Strategies Twila employed to promote student participation in whole class and small group discussions included providing a variety of stimuli and monitoring student behavior and responses during discussions. She also worked hard to create a safe learning environment.

According to Elkind and Sweet (1998) peer discussion is a good way for students to articulate their opinions and learn to be respectful of varying points of view. Mearns, Meyer, and Bharadwaj (2007) add that students feel more comfortable sharing their opinions when the teacher is understanding and welcoming. During both whole class and small group discussions, Twila worked to remain non-judgmental and encouraged all students to contribute their thoughts and opinions.

Although the article critique assignment provided students with opportunities to actively participate in student-to-student, higher order discussion, the stringent time frame Twila placed on these discussions was ultimately counterproductive. Students seemingly enjoyed these discussions, but reflected the assignment would have been more effective if allotted more time. Their assertions are supported by research. According to Lewis and Doorlag (2011), instructional activities should occur at a quick pace to increase student engagement in learning, but adequate time for students to process information must also be considered.

**Higher order thinking.** Students engage in learning when they solve problems creatively in a collaborative manner with peers, utilizing the skills they have learned through class (Bennett, 1995; Jones, Valdez, Nowakowski, & Rasmussen, 1994). In Twila’s classroom, students engaged in higher order thinking when they worked in pairs to complete the three part curricular adaptation project. This project required students to use information they had acquired in earlier class sessions as well as research additional information. The project took multiple class sessions to complete. After students completed each phase of the project, Twila provided detailed feedback, typically by the following class session. According to Kuh, Kinzie, and Schuh (2005) challenging academic activities requiring
expertise and time to achieve do not discourage students from learning, but instead heighten student engagement in learning.

Unlike the curricular adaptation project, chapter quizzes did not engage students in learning. Twila’s students were disgruntled with the multiple choice, true/false format of the chapter quizzes. According to Coates et al. (2008) students do not engage actively in activities or assessments requiring them to simply regurgitate basic information. However, students become highly engaged when learning tasks entail evaluation and application. Similarly, multiple choice, true/false assessments encourage students to learn only factual information. They do not require students to utilize more sophisticated skills such as investigating and synthesizing information, consequently impeding the learning process (McKeachie, 1986).

Why do students engage in learning?

Relevant information, activities, and assignments. Students engage in learning when they make connections between what they learn in class and real life, practical experiences (Brewster & Fager, 2000; Lumsden, 1994). Haworth and Conrad (1997) wrote, “Students participate in learning activities in which they connect theoretical and applied knowledge to complex problems, issues, and situations in the real world” (p. 34).

Twila designed class assignments and activities to be applicable for students. One such assignment was the curricular adaptation project. Discussions of case studies also proved extremely relevant to students. The case studies provided students with opportunities to synthesize, analyze, and discuss authentic scenarios and decide as future teachers how they would resolve posed dilemmas. Twila’s lectures provided students with information for completing the course requirements. Course evaluation comments indicated that students thought these activities were relevant to their learning. One student commented, “The classroom assignments encouraged application and evaluation based on concepts taught.”

Conversely, most students did not perceive the student-led presentations as relevant. Although Twila thought this assignment would provide an opportunity to practice teaching, students did not make this connection, viewing the assignment as just another task to complete.

Emotional connection to the course content. Several comments from the course evaluations indicated that students thought Twila’s class was entertaining. One student wrote, “She was a fabulous teacher. She is knowledgeable and made class fun and exciting!”

Another student voiced her view of Twila’s positive teaching attributes during the focus group:

I think she made class enjoyable and fun, which is really important, even at the college level. At any level, if a teacher applies fun in class, and humor, people are
going enjoy it more. They’re going to be more engaged, and they’re going to really like the teacher.

Twila strived to make each class enjoyable for her students. At times, she light-heartedly reminisced on her days as a special education teacher, cautioning students not to make the same mistakes. Other times, she utilized competition to enliven a waning class session. One such instance was captured by IPI anecdotal notes: “Student-to-student discussion about accommodations/modifications. Each small group creates a list to share with the class – longest list wins!”

While many of Twila’s class sessions were enjoyable, others evoked emotion. One such class featured a video clip depicting a student who committed suicide after being bullied by classmates. Another involved a photo-based lecture about Christmas in Purgatory. Students were highly engaged during these class sessions partly because the content and images themselves were shocking and sad. Additionally, Twila was passionate about these topics. Research shows that students’ motivation, enjoyment of learning, and engagement increase when professors demonstrate enthusiasm and passion for their subject matter (Brigham, Scruggs, & Mastropieri, 1992; Sass, 1989).

Positive interactions with the professor. Students are most likely to engage in learning when provided with opportunities to interact with a professor who is knowledgeable, well prepared, and approachable (Mearns, Meyer, & Bharadwaj, 2007). College students in this study particularly appreciated Twila’s warmth and approachability. During the focus group, one student remarked:

I think she’s just relatable. I missed a week and a half of class and Twila e-mailed me. She had my project partner call me, and she made exceptions for me to come in at different times of the day to make up my work. I stayed in close contact with her. I felt like I could talk to her about anything. I know she respects me so I’m going to respect her that much more.

Another student expressed appreciation for Twila’s openness: “She’s disarmingly honest. She really does share the mistakes she made early in her career, and her failures and stuff. When you don’t come across as being perfect, it’s like, ‘Wow, you’re a real person!’”

Research also shows that professors encourage student engagement in learning when they establish high expectations, readily discuss academic progress with students, and provide frequent and timely feedback (Bowen, 2005; Bryson & Hand, 2007). Students specifically noted Twila’s efforts to support them toward successful completion of the course. One explained, “When you speak to her before or after class, or send an e-mail, her responses are quick and friendly; they’re not abrupt or abrasive. She doesn’t criticize the group. You don’t get critical e-mails saying, “I’m really disappointed...” Another student commented: “Very specific feedback. You will have taken a quiz and you’ll have the grades back like within five hours! Timely feedback. It’s very good.”

Twila’s Beliefs about Student Engagement in Learning - Revisited
After carefully analyzing the IPI codes, anecdotal notes, and focus group transcripts collected during this study, Twila revisited her beliefs about college student engagement in learning. The following reflection, written in November 2011, depicts how her beliefs changed:

One of my original beliefs was the teacher, more so than students, is responsible for creating a classroom environment that engages students in learning. I now believe students must take responsibility for their own learning; however, it is crucial professors employ various strategies to ensure active participation and the occurrence of engagement. Therefore, students must place their efforts and attention into learning and teachers must create a conducive environment. Second, when the teacher finds ways to make learning exciting, even reluctant learners are more likely to engage. I now believe the activities do not necessarily need to be enjoyable, but they need to evoke emotions in students.

**Limitations**

While this study was very useful to Twila as a way to deeply analyze students’ responses to her teaching practices, it has limitations. To begin, the duration of the study was only two semesters. Second, Jana may have coded more leniently during observations than she would have for someone she did not know. Third, it is possible that Twila or her students acted differently when they were being observed, a phenomenon known as the Hawthorne Effect (Cherry, 2010). Additionally, the views of students participating in the focus group may not have been completely representative of their peers.

We took several precautions to minimize the effects of these limitations: earning certification as IPI data collectors, adhering to the established IPI data collection protocols, collecting multiple data sources, articulating Twila’s beliefs about student engagement in learning prior to commencing the study, and convening a student focus group to validate and refine our initial data analysis. We believe that, despite any limitations from a scholarly research perspective, the study provided us with meaningful professional development that has directly (Twila) and indirectly (Jana) informed our teaching practices in terms of encouraging student engagement in learning.

**Conclusion**

The purpose of the study was to better understand college students’ engagement in learning by utilizing a reflective, data-based process. In the quest to answer how and why students engage in learning, the researchers utilized both elements of collaboration and self-study. Employing IPI, one type of systematic observational tool, researchers found college students engaged in learning most often when they paid attention, participated actively in discussion, and used higher order thinking to complete class assignments. Findings also revealed students were motivated to engage in learning when they viewed information, activities, and assignments as relevant, felt emotionally connected to the course content, and experienced positive interactions with their professor. The research-
ers strongly believe these results are interdisciplinary and therefore beneficial to all professors, regardless of content area.

This study was extremely advantageous to Twila because it validated aspects of her teaching which were valuable and engaging for students. Consequently, she learned which assignments and teaching methods warranted continued implementation. The results of the study also made clear the aspects of her teaching which fostered decreased levels of engagement in her students. This information was crucial to her teaching and had a substantial impact on how she designed and implemented assignments for students in upcoming classes. She whole-heartedly believes she became a much better teacher after participating in this study, therefore improving the education and learning experiences for all her students.

We encourage professors from all fields of study to consider using peer observation as a means of collaborative self-study to better understand how and why their own college students engage in learning.

References


Understanding How and Why College Students Engage in Learning

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Using Classroom Competitions to Prepare Students For the Competitive Business World

Fay Y. Gibson\textsuperscript{a}, Doris H. Kincade\textsuperscript{b}, and Pamela Y. Frasier\textsuperscript{1c}

\textsuperscript{a}North Carolina State University, Raleigh, NC 27606
\textsuperscript{b}Virginia Polytechnic Institute and State University, Blacksburg, VA 24061
\textsuperscript{c}University of North Carolina at Chapel Hill, Chapel Hill, NC 27599

Abstract

This paper describes how a university, collaborating with industry, integrated research with active learning (e.g., collaboration in teams and competitions) for fashion majors. The redesigned introductory course uses two strategies: team competitions and a genius bar to guide students, give ongoing feedback, and judge final competitions. Active learning brings reality to the classroom, guiding students to transform information into knowledge, and motivating students to apply textbook theories and practice skills in a real world business setting. The course is based on previous calls by academicians recommending students encounter real world work environments so they will not graduate inadequately prepared for work situations. The need for research skills and integrated thinking is reinforced by regional, national and international accrediting agencies (SACS, 2012).

Keywords: Active learning, teamwork, competition.

In today’s tumultuous economic environment, both universities and businesses recognize that students need to (a) develop research skills and (b) integrate information to solve complex business problems. The need for research skills and integrated thinking is reinforced by regional, national and international accrediting agencies (SACS, 2012). In addition, researchers confirm the importance of integrating research with active learning (e.g., online discussion groups, chat rooms; Moskovich & Sharf, 2012; Smith & Clark, 2010). However, these findings mostly pertain to the fields of law, organizational behavior and human resources. A paucity of research was found on integrating research with active learning in applied fields of study such as fashion (Bickle, Carroll, & McKenna, 2005).

Simultaneous with academics recognizing the need for integrating research with learning activities, businesses are discovering that collaboration with universities in their use of industry-based projects aids in the development of potential employees. When industries bring problems/projects to universities, students, as potential employees, have opportunities for collaborative experiences with business. Working with business partners, students

\textsuperscript{1} Corresponding author's email: pfrasier@gmail.com

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can solve real work problems and practice skills by conducting research, managing teamwork and demonstrating integrated thinking.

This paper describes how a university, while collaborating with industry, integrated research with active learning for fashion majors. Classroom competitions were chosen as the vehicle to implement this type of learning because the literature (e.g., Faria & Wellington, 2004) suggests that classroom competitions build student confidence, provide real world simulation, and make learning fun.

Literature Review

Literature on Active Learning

Active learning is a way of bringing reality to the classroom, guiding students to transform information into knowledge, and motivating students to apply textbook theories and practice skills in a real world setting (Moskovich & Sharf, 2012). Active learning may include structured laboratory experiments and other experiential activities, including critical self-reflection (Smith & Clark, 2010). Further, the use of active learning in business courses remains a popular pedagogical method “for providing undergraduate students with experiences similar to those they might encounter in the business world” (Wills & Clerkin, 2009, p. 221). In active learning, students learn by doing. This type of learning is in direct contrast to learning where information is transmitted through lectures or reading (Kolb & Kolb, 2005; Moskovich & Sharf, 2012).

In their research on the topic of active learning in the fashion field, Ma and Lee (2012) documented that simulation of interaction with consultants and clients, in combination with teamwork, provides a positive way to teach fashion students about real world business activities. While several types of active learning are recognized as beneficial to fashion students, no information was found on competitions as a form of active learning for students.

Literature on Competitions in the Classroom

Interest in the use of competitions as a teaching strategy in today’s classroom is advanced by the overwhelming success of reality TV. This TV genre, which includes subspecies of competitions, events, races and live-action, is widely accepted as influential and highly motivational to young people (Bondebjerg, 2002). The reality TV genre has created major media events from the opening of new seasons to final episodes (Lee, 2010). This phenomenon continues to grow, transforming how people watch TV and how they view other social actions, including how they speak (Chozick, 2010; Lee). Besides generalized competition shows, some reality TV shows focus on a skill or profession.

Many students enter programs in fashion, interior design and culinary arts because of TV shows such as Flip This House, The Next Design Star, and Project Runway. Language from these shows is evident in their speak pattern. Project Runway is the reason students say “make it work” (Chozick, 2010). And, “process” and “journey” have become com-
mon terms in their language. These job-related programs often begin with team competitions across a number of teams, ending in one-on-one competition for a final winner.

Faria & Wellington (2004) note that the use of classroom competition creates an environment that engages and motivates the student. Classroom competitions are frequently used with documented success in science-based disciplines ranging from geography (Livingstone & Lynch, 2002) and chemistry (Cannon, Mody & Breen, 2008) to psychology (Fleck & Hussey, 2009). Competition is also a common teaching tool in business schools. Wills and Clerkin (2009) reported that “simulation … in business courses is a popular method for providing undergraduate students with experiences similar to those they might encounter in the business world” (p. 221). Northwestern University’s Kellogg School of Business has the philosophy that “[i]t takes a healthy blend of both collaboration and competition to succeed in business” (Cornuke, 2009, para 3). Competitions help hone skills such as innovative thinking and ingenuity, and collaboration is important to help students develop a respect for colleagues who exhibit a “diversity of ideas and alternative interpretations” (Vazin & Reile, 2006, p. 65).

Although widely used in science and business, academics have debated cooperation and competition for decades (Nichols & Sullivan, 2010, para 2). Some researchers found that small groups and competitions were successful. However, disagreements resulted when these activities were analyzed from a theoretical perspective (Johnson & Johnson, 1989/1990; James, 1978). Wynne (1976) researched a cooperation-competition model of teaching college students in the classroom and believed that the two opposites, cooperation and competition, could be combined. He asserted that students did not lack cooperation skills. Rather, their use of cooperation and competition depended upon classroom objectives and intended outcomes. Johnson and Johnson (1989/1990) viewed cooperation and competition as separate and inconsistent, however.

Attle & Baker (2007) surmised that regardless the perspective on competitions, if not well-administered, this active learning technique is capable of fostering a negative and hostile environment for students. Further, instructors who have used competitions suggest controls and guidelines for using this teaching strategy (Livingston & Lynch, 2002). Thus, competition is debated in some fields and recognized as a positive teaching strategy in others. However, no research exploring the use of classroom competitions with fashion students or other similar applied fields was found.

Methods of Course Development

Original course content focused on learning about marketing activities in the fashion industry (i.e., current state of the industry, market segment analysis and brand analysis) through traditional lectures and short reports or projects. The redesigned course (see Figure 1) created a new focus using the active learning technique of competition within the classroom where teams conducted research and completed projects, creating solutions to industry-based problems. Original course constructs were reorganized into a new Component 1 composed of three learning modules. Two new components were also created: (a) Component 2 which entailed an industry-populated genius bar (i.e., panel of “ex-
Component 1, Module 1, research focused on investigating the cotton fiber, determining implications of the fiber’s attributes and benefits on a proposed product. Facts gathered in the Module 1 research project were applied to the Module 2 project. Output from Component 1 and 2 was used by each student team in each class to create the final, industry-ready presentation in Component 3 (see Figure 1). These course changes followed the call of Livingston and Lynch (2002) for students to encounter real world work environments in their education so they would not graduate deficiently prepared for work situations. A detailed description of each component is provided in the next section.

**Component 1: Preparing Industry-based Modules**

Component 1 involved the original components of the traditional fashion marketing

![Figure 1. Redesign of the Introductory Fashion Marketing Course.](image-url)
course redesigned into three learning modules (see Table 1) which were presented within the context of a specific industry.

Module 1: Investigating a Product Specific Market was redesigned, changing the focus from a general research project on the state of the industry to a focused research project on a specific company and consumer market. In order to develop a new product, students first had to learn about the product. In-depth research was conducted, examining cotton’s processing, usage, and economic impact as well as types of cotton, including organic cotton. Other aspects of the module included exploration of cotton’s physical and sustainable properties plus methods of product development and marketing in use by actual cotton producers. This focus assisted students in understanding the importance of the fiber and significance of its characteristics in relation to design, development, and marketing.

Module 2: Analyzing a Specific Market Segment included traditional marketing information as well as new concepts on how to analyze the market (see Table 1). New concepts in this module included how to utilize up-to-date techniques of marketing communications (e.g., social networking) in order to communicate effectively with a specific target segment. By combining traditional market segment information with product characteristics plus new marketing technique concepts, students applied textbook theory and market research, developing new products and new marketing communications. This module resulted in a written report and oral panel presentation (see Table 1).

Module 3: Conducting Brand Analysis Research utilized the industry technique of brand analysis research and incorporated the findings from Modules 1 and 2 to develop a “New Product Development” outcome. The first segment of Module 3 included revised content from the original course. Teams conducted research, completing an analysis of the inventory held by a national branded company plus its brand portfolio (see Table 1). The second segment of the module, also revised from the original content, involved an analysis to pinpoint the current external marketing environment (i.e., market description, trends, channels, competition). For the third (new) segment of the module, teams developed a new product line for the branded company and created a marketing campaign, communicating the new product line to a specific target consumer. Outcomes from this module resulted in a final written report and oral panel presentation (see Table 1).

Component 2: Creating an Industry-Populated Genius Bar

A genius bar is defined as a source of valuable information and available to customers (or, in this case, students) seeking information about a specific topic. For example, Apple made the Genius Bar® popular with its in-store experts (Apple Retail Store, 2012). For this course the genius bar was available to students through a speaker series with industry experts, and resources from research specialists and reference librarians who provided students with information and sources for their research. After industry experts and librarians were introduced, students had access to these geniuses through email and personal communication.
<table>
<thead>
<tr>
<th>Content Modules</th>
<th>Method</th>
<th>Topics</th>
<th>Student Outcomes</th>
</tr>
</thead>
</table>
| **Module 1:** Investigating a Product-Specific Market | • Create teams of 3-5 students per class  
• Assign one topic per team  
• Provide in-class instruction on topics  
• Direct student research | Cotton Product  
• Cotton physical properties and characteristics  
• Cotton production and processes  
• Cotton as a sustainable fiber  
Economic Issues  
• Product Classification: Import/Export  
• U.S. Economic Impact: Cotton Markets  
• World Wide Economic Impact: Cotton Usage  
Marketing Cotton  
• Trade organizations  
• Review trade-specific resources: *Lifestyle Monitor COTTONWORKS®* Fabric Library | • Written report  
• Oral panel presentation  
• Grades for point count toward competition |
| **Module 2:** Analyzing a Specific Market Segment | • Select a segment per team  
• Continue research  
  o Match cotton product characteristics to segment  
  o Identify marketing techniques for products to reach target segment | Demographics, psychographics, and lifestyles  
• Cotton product characteristics desired by market segment  
• Marketing techniques to communicate cotton information to the market segment | • Written report  
• Oral panel  
• Continue point count for competition |
| **Module 3:** Conducting Brand Analysis Research | • Select brand per team  
• Continue research  
  o Research brand’s marketing strategy  
  o Investigate current marketing environment  
  o Design a new product development prototype | Marketing Strategy  
  o Mission statement, marketing objectives, branding strategies, brand positioning, target market, and marketing mix  
  o Current Marketing Environment  
  o Overview of external and internal markets  
  o Macro environmental factors, market trends  
  o Brand competition and market channels | • Written report including design of new product  
• Total of points for competition  
• Competition between top teams |
As part of the genius bar, a speaker series was scheduled throughout the semester to correspond with the various concepts and topics discussed in the classroom and the projects completed in the three modules of Component 1. Experts/speakers selected for the genius bar had in-depth knowledge and use of the cotton fiber from the farm to the retailer and end-consumer and included individuals from industry representing areas of Agriculture Research, Product Development, and Market Research. Some were alumni employed with major national branded companies. Others were from local businesses, marketing agencies, trade organizations, and local and state governmental agencies. Students participated in question and answer sessions and conducted informational interviews with the speakers. They also practiced professional business etiquette through business communications via telephone, e-mail, and written memo. As a result, students learned to interface and network with industry personnel and obtained feedback for the final competition. In addition to providing expertise throughout the semester, several experts returned to campus to participate in judging during the final competition process.

In another aspect of the genius bar, the college’s reference librarian identified pertinent resources (i.e., cotton fiber data and current marketing information) both online and in the library. In addition, the librarian presented a “how to conduct” research workshop. This workshop was significant because many students taking the introductory level course had limited practice using the large databases and other references available at the university. Tips on information search skills, advice on note taking and methods for citation tracking were given to the students.

**Component 3: Institutionalizing Change through Student Competition**

This component created the competition process through which projects from Component 1 were evaluated. During student work in teams on Component 3, instructors spent class-time discussing small group problem-solving techniques. Success of teams depends on training students how “real-life management teams manage themselves and make decisions” (Wills & Clerkin, 2009, p. 225). Based on written research reports and oral and visual presentations, student teams accumulated points for each of the three projects. The top three teams in each of the two classes (i.e., those who accumulated the highest number of points for all assignments) were recognized and received monetary awards.

The final competition in Component 3 was held among the three winning teams from each of the two classes, for a total of six teams. These teams competed using their “New Product Development” ideas (i.e., the final project in Module 3 of Component 1) and their projects developed in Component 3.

**The Student Participants**

At the beginning of the semester, students selected three to five members for their team, resulting in approximately 12 teams per class. Students were encouraged to form their teams based on student skills and work experience. Research has shown that the composition of a student team is likely to impact the effectiveness of the teamwork. When students form their own teams rather than being forced by the instructor into teams, the
teams tend to function better and students are more cooperative within the team and competitive across teams (Cannon, Mody & Breen, 2008; Wynne, 1976).

Some aspects of teamwork in the classroom (e.g., stress from competition, personality conflicts affecting performance evaluations) are as difficult as those confronted in real work situations. “[I]t could be argued that if students do not encounter such situations in their education they will graduate deficiently prepared for work situations” (Livingstone & Lynch, 2002, p. 234). Although the classroom competition with teamwork introduces these pressures to students, the instructors wished to create a safe learning environment for students. To assure that undue competition within the team did not negatively impact students, the instructors required students to complete peer evaluations. These self and team member evaluations aided development of effective team dynamics and informed the instructors of team member performance.

**Evaluation Process**

Two levels of evaluations were conducted for the study. First, student work was evaluated through team, project and course evaluations for the semester. Second, the use of competitions in the classroom was evaluated with instructor evaluations and industry feedback. The process of evaluation is presented in this section and comments and outcomes from the evaluations are presented in the following section.

**Evaluation of Student Work**

Evaluation of the students’ work was accomplished by using multiple perspectives: (a) peer evaluation by student team members (i.e., self and team evaluations) at the conclusion of Component 3, Projects 1, 2 and 3, using a team evaluation rubric provided by the instructor; (b) instructor evaluation of the three projects from Component 1, with a rubric specific to the three projects; and (c) genius bar evaluation (i.e., feedback from industry experts) on the final competition, with a rubric for the final competition provided by the instructor.

**Peer Evaluation.** At each project’s conclusion, each team member evaluated his/her peers on ten criteria measuring the individual’s contributions to the project and his/her cooperation with the team. The peer evaluation criteria included team meeting attendance, punctuality, contribution of ideas, quality of work, communication, and meeting due dates and deadlines. Peer ratings were conducted using the following 4-point scale from 4 points) “Great Job” (100%-86%); 3 points) “Good Job but Nothing Extra” (85%-75%); 2 points) “Made Minimal Effort” (74%-61%); and 1 point) “I’d Fire Him/Her” (60%-0%). Peer evaluations help students to reflect on their project work as well as their teamwork and “…to reconcile their individual contributions and interactions with the final group achievement” (Livingstone & Lynch, 2002, p. 235).

**Instructor Evaluation.** The research paper and the accompanying oral presentations with visuals were evaluated using a 100-point rubric designed for each of the three projects. The guidelines and rubrics were presented and discussed in class prior to assignment due
dates. For example, for the first project (see Table 1), the instructor evaluated each team on the following criteria:

- **Written - Research paper (50 points):** Organization, content, bibliography, grammar
- **Presentation - Panel (25 points):** Introduction, transition, conclusion, content, incorporation of visuals, professional dress
- **Visual - PowerPoint presentation, handouts and concept board (25 points):** Format, graphics, content

Instructor feedback to students on team papers and presentations with visuals was based on adherence to predefined guidelines (i.e., content, code of conduct, rules and style for paper and presentation). This feedback was provided promptly to assist the students in attaining improvement on the next project. Although teams were given their respective project score, they were not informed of their ranking in relation to the other teams within and between classes. Each team was encouraged to keep a record of their cumulative points for discussion and reflection on team progress. Having instructors encourage student self-reflection followed suggestions by Wills and Clerkin (2009) for reflective feedback between students and instructors.

*Genius Bar Evaluation.* For the final competition, a panel, drawn from the genius bar, evaluated the top three projects from both classes. Utilizing a 100 point rubric, they evaluated:

- **Industry feasibility of the new cotton product (50 points):** Cost of materials, manufacturability within their company, compatibility with their customers
- **Oral presentation (25 points):** Skill in presenting, accuracy of information, persuasiveness, organization of thought
- **Visuals (e.g., PowerPoint, handouts; 15 points):** Accuracy of representation, graphics skills, ability to convey image
- **Professional dress (10 points):** Appropriateness for industry presentations

Scores were averaged across reviewers to provide students with one overall final competition score.

In summary, the evaluation of students was accomplished by using multiple perspectives. Peer and instructor evaluation covered the students’ work throughout the semester and the expert panel from industry judged the presentations in the final competition between classes. Information from the evaluation of students’ work also was used in the evaluation of the course.

*Evaluation of the Use of Competitions in the Classroom*

The redesigned course was compared to the traditional course taught the previous semester. The instructor, textbook, grading scales, and attendance policies were the same in both the traditional and redesigned course. The classes were of similar size (revised, \( n = \))
53; traditional, $n = 56$). The instructor and genius bar experts provided information for this portion of the evaluation.

The instructor evaluations included traditional quantitative measures of attendance and course grades for ranking and comparisons but also involved a number of qualitative sources. For example, an informal journal was kept by the instructor for the purpose of documenting impressions of classroom activities throughout the semester and for recording notes taken during team meetings with the instructor. The instructor also noted general observations of class-related behavior (e.g., in-class discussions, spatial dynamics) and documented panel member comments during their competition judging and final debriefing sessions.

Evaluations from industry experts were also qualitative and consisted of comments to the instructor at the end of speaker presentations, and emails from the industry participants to the instructor during the semester.

**Results**

Evaluations of the active learning technique of competitions are reported from student, instructor, and industry (i.e., genius bar) evaluations.

**Results Reported by Students**

During and after completion of the three in-class competitions and the final competition between classes, students commented that they were very enthusiastic about collecting data from library research, using the genius bar by conducting informational interviews with industry personnel, and improving their scores on their next project. The two most common negative comments from student evaluations were that (a) the team member was late in producing the expected work and (b) the work was not acceptable. Other common negative comments were: the team member did not show for meetings, changed things without asking, and had computer files that were not compatible with others. The most common positive comments were high praise for extra work, positive attitudes and willingness to work. These comments are similar to ones offered by students in noncompetition classes.

In peer evaluation information directly related to the competitions, student feedback indicated that some students independently initiated extra research on major project segments and routinely contacted genius bar experts. Many students also indicated that they used the competition rankings and the projects to expand their resumes, providing examples of their work for job and internship interviews, and to assist with assignments in more advanced classes.

Students also reported that the practical use of the cotton fiber in the competitions helped them prepare for projects in other classes (e.g., design classes). This was confirmed by design faculty who reported that students from the newly redesigned course appeared to have a better understanding of the importance of the fiber. In summary, students reported that they liked being asked for information about their team’s functioning and thought
that giving individual evaluations was important to their process. Students doing peer evaluations for team members seem to be more satisfied with their grade results than students who did not have this opportunity for reflection in previous classes.

Results Reported by Instructor

Quantitative measures used by the instructor for the traditional course and redesigned course included attendance, class participation and grades (see Table 2). As stated previously, class participation grades were based on attendance at team meetings, attendance at speaker presentations outside the normal class requirement, and student contributions to in-class discussions. No statistical difference was measured between the attendance averages for the traditional and the redesigned course. Class participation was also similar between the traditional and redesigned course.

Table 2. Comparison of Traditional Course and Redesigned Course.

<table>
<thead>
<tr>
<th>Mode of Evaluation</th>
<th>Traditional Course ((n = 56))</th>
<th>Redesigned Course ((n = 53))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>1.5 absences per student</td>
<td>1.5 absences per student</td>
</tr>
<tr>
<td>Class participation</td>
<td>42.8 points ((\text{average per student}))</td>
<td>42.8 points ((\text{average per student}))</td>
</tr>
<tr>
<td>Semester grades</td>
<td>66 % A</td>
<td>51 % A</td>
</tr>
<tr>
<td></td>
<td>28.6 % B</td>
<td>49 % B</td>
</tr>
<tr>
<td></td>
<td>3.6 % C</td>
<td>0 % C</td>
</tr>
<tr>
<td></td>
<td>1.8 % D</td>
<td>0 % D</td>
</tr>
<tr>
<td></td>
<td>0 % F</td>
<td>0 % F</td>
</tr>
</tbody>
</table>

In reviewing overall semester grades between the traditional and redesigned course, a change was noted when reviewing those students with grades in the lower grade ranges. The redesigned course had no grades in the C, D and F range. Finally, within the redesigned course, an analysis of the grades for the two classes indicated that all 12 teams improved their grades from project 1 to project 2. With the exception of one team, all continued to maintain or improve grades on their third project.

Although the quantitative measures reflected limited differences in student outcome between the traditional and redesigned course, the major differences between the two courses may be viewed from the qualitative data. The instructor’s informal journal combined with classroom observations revealed the active strategy of competitions had a positive effect, with the instructor noting positive differences in student enthusiasm and attitude toward the assignments and industry feedback on the quality of the presentations and the innovativeness of the new product development. The instructor also noted that, in the redesigned course, multiple students conducted informational interviews with industry experts in addition to the interviews required for the class. In the final written research papers, students in the redesigned course showed evidence of in-depth investigation of the cotton fiber and its properties, characteristics, and attributes; students in the traditional class had not demonstrated this same type of in-depth investigation.
Results Reported by Genius Bar Members

Comments from the experts reinforced the instructor observations. For example, some indicated that the projects were targeted so well that students should contact the company with their new product prototype. The expert panel also complimented teams on their professionalism and self-confidence. For example, a former vice president of product development for a national retail chain stated:

“The students’ presentations were unique, engaging, well-organized and highly professional. It was obvious that they had researched fiber characteristics and product features thoroughly from a technical and consumer perspective in preparation for the competition. From these creative ideas and innovative product concepts which were relevant and well developed, industry could quickly embrace these innovations for consumer research and brand exploration.”

Industry experts also gave high marks to all teams participating in the final competition. Several experts had participated in other classroom activities and commented on how the students in the redesigned course appeared to be more enthusiastic about their projects than previous classes. The traditional course participants did not garner this type of informal feedback.

These experts were so impressed with the projects from the final competition that they suggested providing additional awards to student teams, including an honorable mention category. The experts noted that the winning projects contained a level of detail that was not seen in the projects from traditional classes. The competition projects had a depth of knowledge about the consumer market, the brand and the cotton fiber that was professional level. In addition, these projects contained chemical and physical property information about the cotton fiber and commodity market data that the teams had gathered from the genius bar. The winning projects also showed a professional polish in presentation that included high quality printing, mounting of samples, and digital lettering of visuals. Finally, the level of creativity and inventiveness, although hard to measure, was clearly obvious when comparing winning projects to the remainder of the class projects.

Discussion

Livingstone and Lynch (2002) state that “Given the demand among employers for graduates who can operate successfully in teams, it is important to engender a positive response from students for team working” (p. 232). Our results support the findings from Livingstone and Lynch. Teamwork not only provides students with a set of transferable skills to utilize in their future workplace, but also assists students in understanding team dynamics and helps them learn how to examine their subject matter in college courses, so that they may solve critical problems in a real-world work environment.

Course outcomes also support the Kellogg School of Business post that “success is a function of our willingness to cooperate, learn from each other, and grow together” (Cornuke, 2009, para 11). The synergism created by the competition is greater than the
knowledge of one student, thereby benefiting all members of the class, and ultimately the instructors and the department.

**Conclusions and Recommendations**

This pedagogical technique not only was effective with the introductory fashion course but also has tenets applicable to other courses (e.g., team competitions, in conjunction with the genius bar, have been used with success in intermediate and advanced fashion classes). Teamwork and competitions could be implemented in other classes in applied and industry-based fields. In all of these classes students must be prepared for teamwork and competitive business environments.

The idea of student team competitions using real world products and actual consumers may be popular with companies partnering with universities. Branded companies in home fashions as well as interior design firms and real estate companies of fashion retail centers could sponsor major student competitions. Depending on the industry problem, an interdisciplinary approach also might be applied to competitions, with classes invited to work with companies for the purpose of training students to learn how to conduct research, integrate their findings and solve current business problems.

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Social Responsibility, Critical Analysis, and Literary Studies: Continuing Conversations About Service Learning

Andrew Bourelle\textsuperscript{1} and Tiffany Bourelle

\textit{The University of New Mexico, Albuquerque, NM 87131}

Abstract

The use of service learning in university courses can be limited depending on the class and the subject matter. In this article, the authors provide examples of two teachers’ experiences with service learning in literature courses, showing service learning can have a home in fields of study where it might not initially seem to belong. The authors encourage instructors, whether in literature or other academic disciplines, to consider ways in which a service-learning pedagogy can be used in their classes.

\textbf{Keywords:} Service learning, critical pedagogy, literary studies, women’s literature, environmental literature.

Service learning continues to find success in classrooms across the country, with many university courses employing projects that enhance students’ learning by encouraging active participation in the community outside of academia. Service learning’s roots are established in critical pedagogy, which Giroux (2011) describes as the “educational imperative to encourage students to act on the knowledge, values, and social relations they acquire by being responsive to the deepest and most important problems of our time” (p. 14). Critical pedagogy, Giroux states, “is about encouraging students to take risks, act on their sense of social responsibility, and engage the world as an object of both critical analysis and hopeful transformation” (p. 14). Through service learning, students learn to become active thinkers and active citizens at the same time. Mitchell (2008) argues that service learning has recently “experienced a shift from a traditional model of a pedagogy that merely encourages students to take part in community projects to one that encourage students to see themselves as agents of social change, and use the experience of service to address and respond to injustice in communities” (p. 51). This shift insists that service learning is not only for the benefit of the student as an individual, but for the greater good. Taking these practices further, Mitchell argues that to truly make a change in society, students must investigate and understand “the root causes of social problems and the courses of action necessary to challenge and change the structures that perpetuate those problems” (p. 53).

While service-learning certainly has merit, the pedagogy fits more obviously and more seamlessly into some academic courses than others. In the field of English, for example,
while service learning is often associated with first-year composition courses, literary studies is typically overlooked as being a suitable site for service-learning pedagogy. Literature courses emphasize the reading and critical analysis of texts, often historical ones; therefore, a pedagogy that invites students to take social action doesn’t inherently seem to apply.

We argue that service learning can facilitate the understanding that Mitchell advocates, even when the pedagogy is not an obvious fit with course subject matter or when other challenges exist. For instance, many scholars have questioned the relevance of service learning to literature courses. Specifically, Grobman (2005) has asked whether the service-learning aspect may “undermine literary studies rather than imbue it” (p. 129) with cultural significance, questioning whether or not a literary text loses meaning when combined with service projects. However, after adopting the pedagogy in her own class, Grobman (2007) has asserted that service learning can be successful when the literature closely parallels the cultural issues the students confront in their service and the educator emphasizes the value of literature “as a form of creative expression with the power to do cultural work” (p. 90). Choosing texts that illustrate social issues similar to the ones students face when working with the community may have more impact on the students’ learning, as they begin to make connections between their world and the literary texts they read in the classroom. In fact, this connection between the texts students read and the service they perform can benefit many classes across the disciplines, not just literature-based courses.

The following article furthers the conversation surrounding service learning pedagogy, providing examples of two teachers’ experiences with service learning: one face-to-face Women and Literature course and the other an online Literature and Environment course. Using literary texts that support the service projects, these examples illustrate Grobman’s (2007) idea of incorporating literature that encourages students “to think more deeply about the power of literary texts to challenge dominant ideas and structures” (p. 91). The first example discusses service learning that is applicable to a local community and women’s rights within that community, while the second considers a national effort, focusing the service around the Gulf of Mexico Oil Spill. We wanted to pair these examples because they demonstrate a range of opportunities: classroom instruction and online instruction, local activism and national activism, as well as literature from different content areas. The article insists that it is possible to educate students to become active citizens within classes that do not seem amenable to service learning; however, to ensure the pedagogy’s success, we as educators must strive to revisit our existing curriculum and make changes to incorporate lessons that empower students. We encourage and challenge our readers to consider ways to restructure their own curricula to include empowering projects that can effect change—change within the students and the world in which they live. Whether readers teach literature or other subjects that seem unsuited to service learning, we hope our models help broaden instructors’ understanding of the possibilities of using service learning in their classes.
Writing About Service

In recent decades, the importance of fostering social responsibility through a university education has been on the rise. However, Hersh and Schneider (2005) point out that the philosophical perspectives that guide this ideal were actually foundational in the creation of the American post-secondary educational system. The “cultivation of virtues associated with […] ‘personal and social responsibility,’” the authors explain, was intended to be a guiding principle for American liberal arts colleges. Hersh and Schneider (2005) state that over the twentieth century, the academy became increasingly uncomfortable preparing “morally astute individuals who will positively contribute” to the world around them. Education became focused more exclusively on subject matter. The authors state, “We know we can teach students organic chemistry; we know we can teach them Keynesian economics and the history of the Italian Renaissance. But if that is all we do, then we have failed them.” Students, Hersh and Schneider argue, “need passion with a conscience, passion imbued with a keen sense of responsibility.” Even in a literature class, teachers can strive to instill students with this “passion with a conscience” and “passion [with] responsibility.” Service-learning projects, which can take many forms, can give students a sense of agency making a difference toward the solution of community problems.

Deans (2000) explains that service learning projects that strive toward solving community problems are typically divided into three categories: “writing for the community; writing about the community; and writing with the community” (p. 15). Deans acknowledges that each category is a reductive look at the complexities of actual programs; however, the categorization can help instructors focus their pedagogy. Both of the classes described in this article focus on “writing about the community” projects, wherein the students completed service assignments and then wrote critical reflections. Deans states, “Gaining lived experience through working with people in need can open new perspectives for students, particularly as they write about complex social issues” (p. 18). In such courses, the writing emphasizes “personal reflection, social analysis, and/or cultural critique” (p. 18). Such writing-about-service courses, Deans says, “tend to advance academic and critical literacy goals” (p. 18). In addition, Bringle and Hatcher (1996) claim that reflection is a critical component to service learning, as reflections bridge the gap between their experiences and the content of the course.

In the sections that follow, we have included two examples from two different literature courses, illustrating the range of ways that writing-about-community can be utilized in classrooms. The accompanying writing projects and what the students learned about civic engagement were very different. Therefore, this article, we hope, will provide an argument for the inclusion of writing-about-community projects as well as two distinctive examples of such projects in use.

Students enrolled in the two classes to be discussed were English and non-English majors alike at the University of Montana Western, a small satellite campus of the University of Montana system, located in a rural region and composed of about 1,200 students. Approximately 80% of the student population was Caucasian, and a large majority of the
students came from rural communities. Our goals for these courses were to emphasize
critical literacy—specifically with the texts being studied in the course—as well as to ad-
advance the academic writing capabilities of the students. The courses, while concentrated
on different literary foci, were intended to increase students’ critical thinking. We wanted
the students to learn the material covered in the texts, but moreover we wanted them to
take a broader perspective to the written material, applying what they read to the world
around them. We wanted the students to think critically and analytically: about the liter-
ature, about the social and environmental movements the literature related to, and about
their own beliefs, preconceptions, and prior level of understanding regarding the material
covered in the courses.

Example 1—Women and Literature: Fostering Social Awareness

In the spring of 2010, Instructor A taught the Women and Literature course described
here. The instructor, believing that real-world context is an essential element in fostering
social awareness, actively sought ways to incorporate service learning into the curric-

The literary texts that informed the service project included readings within Gilbert and
Gubar’s (1996) *The Norton Anthology of Literature by Women: The Traditions in En-

Having worked at a women’s shelter in a different community during her undergraduate
studies, the instructor formed a relationship with the local shelter to see what students
could do to help. A few weeks into the class, the students started their service project.
The first step was to establish a meeting with the director of the shelter, where they were
met with a major challenge from the very beginning. Because of legal issues, the director
indicated that students could not work one-on-one with the women who lived at the shel-
ter, which meant they had to find other ways to contribute. To maintain its anonymity,
the whereabouts of the actual shelter had to remain unknown, and the students were only allowed to visit the shelter’s headquarters located in town. As a class, students toured the facility and became familiar with the shelter’s services and needs.

When discussing what they could do to help, the director suggested the students could help stuff envelopes. Needless to say, the students were a little disheartened with this idea. Forbes, Garber, Kensinger, and Slagter (1995) describe this type of service work as “observation rather than activism” (p. 164), arguing that service learning has to incorporate the needs of the instructor, the organization, and the students participating in order to be successful. They warn of the impending frustration that can arise when students are asked to participate in “tedious” service work without direct contact with the community. Instead, the service project must help students see themselves as “agents capable of acting with others to build coalitions, foster public awareness, and create social change” (p. 167). A more active role in the project may ensure that students recognize their potential to become agents of social change.

Wanting more active roles, the students met with the director again. This time, they gained a better understanding of the issues their clientele were facing. They learned that the majority of women who utilized the shelter’s services were women escaping abusive situations, young mothers seeking assistance, and teens seeking help with health care. While they couldn’t work one-on-one with the clientele, they found other ways to help, including adding to the shelter’s library and educating the local community regarding women’s issues. Throughout the semester, students discussed ways to do both effectively, and while both are equally important, perhaps more important to the course outcomes was the discussion of the literature they might provide to the shelter’s clientele.

When discussing what texts to contribute, students focused on readings that might both empower and educate women. As they were reading a mix of historical and contemporary texts, this was not an easy task; some students thought the historical texts provided important historical context, while others thought the newer readings focused on more current events that women could relate to on a personal level. In the end, they all agreed the shelter’s library should reflect a mix of historical and current literature—the same mix they read in class. At the end of the semester, several of students donated their own texts to the library.

The students indicated that they wanted to do more than donate literature, and they turned to the shelter’s director again for guidance. The director commented that their female clientele often left their homes with nothing—no shoes, no clothes, no toiletries. To make the transition to the shelter more comfortable for these women, the students organized a community clothing drive, asking local businesses for donations. To solicit these donations, students created posters and flyers they displayed in storefront windows. Several businesses donated clothing and hygienic items, including make-up and personal care products. In the end, the students received enough donations to create ten baskets for the shelter. Each basket held one item of clothing and five toiletry items, which created enough baskets for every current resident of the shelter to receive her own.
For their final project, the students turned their focus on ways to advocate for women’s rights in the community. One of the texts in the course included *Feminist Theory: From Margin to Center*, wherein author hooks (1984) prompts women to focus their attention on “mass outreach with the intention of taking feminism out of the university and into the streets and homes of this society” (p. 111). With hooks’ challenge in mind, students held a Women’s Exposition at the end of the semester, showcasing their final projects produced in the class, which included writing an analysis of a women’s issue in society and designing a poster presentation, complete with distributable literature. The issues presented included birth control options, women’s health care, domestic violence, and STDs. The Expo lasted for four hours, and approximately fifty people attended at various times. The students asked the university library to showcase their presentations for a week so that community members who could not attend the Expo could stop by at their leisure, and they hung flyers in the community to let people know the presentations were still on display.

The conclusion of the service-learning assignment in the class consisted of structured reflection on the course, including the service project. Following Grobman’s (2007) lead, students synthesized their experiences with the texts they read, writing metacognitive reflections. As Deans (2000) as well as Bringle and Hatcher (1996) show us, reflection is a critical component to service learning. Reflecting on the course outcomes, students wrote critical analyses, discussing ways in which the texts they read informed their service. They were able to see firsthand the issues presented in the texts they read, making women’s issues more real. Arguably, this service learning project also made the historical texts more approachable, as it helped bridge the gap between older and newer generations, illuminating the need for activism at all points in history, including today.

In the end, the students indicated they were happy with the service project, as it truly spanned the service-learning continuum, from charity to advocacy, having immediate and lasting impact on the community (Morton, 1995). In their journals, several students commented specifically on the use of the book *Cunt* and how they failed to realize the current issues facing women today until reading the text. Many of these same students focused their reflections around Muscio’s discussion of female violence, linking this issue specifically to the work they did for the shelter. Above all, they recognized that they were able to impact society, thereby meeting Muscio’s challenge to her readers. Further, because they were able to have a voice in their service project, the project became more meaningful and lasting for them as active members of the community they were trying to help. In fact, several of the students stayed on to work with the shelter after completion of the course, and others volunteered their time at other women’s resource centers, including the local health department. This continuation of service indicates the potential of service learning to promote active citizenry even long after the students’ academic endeavors.

**Example Two—Literature and the Environment: Responding to Ecological Disaster**

In May 2010, Instructor B was scheduled to teach an online summer course, a 100-level environmentally themed literature class. This course, a general-education option among...
several themed humanities courses, asked students to read texts that “probe the idea of being at home in the natural world, considering ways in which the physical environment directly affects human lives and, vice versa, how humans affect the environment.” The class was offered online, and the students would be scattered throughout rural Montana.

As the instructor was finalizing the syllabus, he was reading daily news articles about what was happening as a result of the explosion on the Deepwater Horizon drilling rig in a BP-operated region of the Gulf of Mexico. Millions of gallons of oil had already spewed into the Gulf, killing various aquatic animals and shore birds, and crippling the region’s fishing and tourism businesses. Suddenly, the textbook readings, the nature journals, and the writing assignments that were planned, while still important, didn’t seem like they should be the entire focus of the course. The instructor felt he couldn’t, in good conscience, teach an environmentally themed class and ignore what officials were already speculating could become one of the worst ecological disasters in US history. The instructor adjusted the syllabus at the last minute, adding a new requirement asking the students to “discuss ways in which [they] can help aid, even in some small way, the efforts to ameliorate the effects of the disaster.” This last-minute change made a significant difference in the education of the students.

Before describing the service-learning effort, it’s worth emphasizing that the service learning was only one aspect of the five-week class, and the students were busy completing other assignments too. They were simultaneously reading essays and stories from the anthology Listening to Earth edited by Hallowell and Levy (2004), which included work by John Muir, Barry Lopez, Henry David Thoreau, Sarah Orne Jewett, Rachel Carson, Terry Tempest Williams, Edward Abbey, and Edward O. Wilson. The anthology also contains an essay by Darcy Frey called “How Green is BP?” which was a fortunate coincidence since the instructor had completed the textbook order long before the oil spill began. The writing assignments for the course consisted of asking the students to complete nature journal entries and analytical papers about the texts. But while the texts gave students a chance to read and write about a variety of environmental literary arguments, the service-learning project gave them a chance to see firsthand the worldly relevance of writing about environmental issues. The vast majority of the literary texts did not directly relate to BP or oil spills; however, the environmental disaster exemplified the idea of how, as the syllabus stated, the “environment directly affects human lives and, vice versa, how humans affect the environment” in a way that the readings couldn’t do by themselves.

The first step in the service-learning component was in helping the students become educated about the environmental disaster and decide what they could do to help. As online students, they were somewhat limited in what they could attempt. They discussed raising money to buy soap for the cleanup crews; they discussed a letter-writing campaign to politicians. Ultimately, they discovered that the National Wildlife Federation had made it easy for people to donate money specifically to animals affected by the spill. By sending a text to a donation number, $10 would be automatically withdrawn from a person’s account, with the vast majority of it going directly to the efforts related to the spill.
Once they had a rough idea, the instructor provided some structure for the students by asking them to complete a few specific activities. First, to promote multimodal literacy in the class, the instructor asked each student to design a brochure or flyer that would inform readers about the easy way to help. Once the flyers were completed, the students were asked to use them to aid in their quest to seek donations. The instructor explained that the students could ask businesses in their areas if they could display them. They were also free to use the flyers to hand out to people whom they would ask for donations. The instructor discouraged the students from going door to door (out of concern for their safety) but allowed them to visit public places and try to recruit donations that way.

The students ran into several challenges as they tried to obtain pledges for donations. To begin with, this was a summer course, so the compressed schedule limited the time they could work on the project. Also, the students lived in small towns where there weren’t that many busy public places to seek out donors. They weren’t living in a metropolitan area where they could go to a popular park or shopping mall, or even the campus of a busy university. Also, they were in rural communities sometimes trying to speak to conservative residents who objected vehemently to the idea of giving money for such a cause.

In the end, the students raised at least $320. We say “at least” because the reality is there is no way to know. The students passed out and hung up flyers, and therefore they could not know precisely how many people they might have influenced to make a donation. What we know is that at least thirty-two people pledged to the class that they would contribute $10 via the text-messaging service. Initially, the instructor could tell the students were disappointed with what they had accomplished. But the instructor saw that it had, in fact, been successful.

The goal had never been to make a major impact on what was happening in the Gulf of Mexico; rather, it was to have some small measure of impact and, at the same time, help the students take part in a project where they could, as Mitchell states, “see themselves as agents of social change” (2008, p. 51). In their final reflection essays, the students articulated how much they had gained from the experience: knowledge of the disaster, personal growth from having worked on the project, and pride from having contributed to the good of society—in addition, of course, to concepts related to literature, writing, rhetoric, and communication. Several students expressed surprise at how difficult it was to obtain pledges, even though the expense was only $10. They found the experience eye opening, not only to learn about the extent of the disaster but also to realize how little some people cared. While some of their comments expressed frustration, they did not express cynicism. Several said that they would be more aware of issues and circumstances like the Gulf oil spill and try to contribute positively when such environmental problems arise in the future. At the same time, the students’ efforts regarding the service-learning project helped put their assigned readings into a new light. The specific subject matter was different, but the general themes of environmental stewardship were the same. Students often found connections between their own actions and those of the authors in the texts. They could more successfully put themselves in other people’s shoes, thinking em-
pathetically about the writers’ stories and claims because they were going through something at least somewhat related.

In summary, as a result of the class, we believe the students learned the course’s goals about literature, but the experience also helped them develop a critical consciousness. The students chose to raise money, but such projects could take multiple forms: advocacy, raising awareness, writing letters, etc. While the instructor provided some guidance for their discussions, the process of determining the project was pedagogically democratic. Like the Women and Literature class project, this undertaking illustrates that the teacher doesn’t necessarily need to have a clear map of what the project will look like ahead of time. Further, it shows that students can be online and don’t have to be based in the same community, and that the project doesn’t inherently have to be a local community problem. If an unexpected natural or unnatural disaster is in the forefront of the country’s mind, teachers can make last-minute changes—or even mid-semester changes—to challenge students to help. Even if the help they provide is seemingly insignificant—like $320 for a multibillion-dollar problem—there is more gained than can be quantified.

**Conclusion—Service Learning in Education**

The path to hopeful transformation may be a bumpy road for both educators and students alike. hooks (1984) claims that students often have alternate views they bring into the classroom and may be reluctant to let go of these paradigms. Just as students can show hesitancy when letting go of their paradigms, teachers may also experience uncertainty when incorporating service-learning projects into the curriculum. It may seem difficult to find service projects that not only supplement the curriculum, but also enhance it as well. While incorporating service-learning projects into a course is certainly not an easy task, the results of service learning show great promise.

In reading about these examples, we hope that readers see two instances of using service learning that they could consider models to take ideas from to fit their own needs. More importantly, we hope these examples are illustrative of the potential for service learning to infuse and invigorate literature and other humanities classes. Outside of English studies, instructors should consider the possibilities of service-learning projects, even when the field of study might not seem like an obvious fit for social action. These two experiences are far from exhaustive examples. Rather, they give insight into the richer, broader possibilities regarding service learning.

We do not advocate incorporating service learning into courses simply for the sake of doing it. If the project does not make sense in the context of the curriculum, or if the project will merely seem like busywork rather than actually engage the students—with the content of the course as well as the mission of the project—then it seems ill advised to move forward. However, what we hope our examples show is that instructors can find ways to make such projects engaging to students and relevant to the material being taught in the course. Such projects can complement the subject matter and enrich the courses instead of simply being another requirement that students view as an obligatory hurdle to get through. This article is an effort to contribute to the ongoing conversations about service learning.
learning generally and in literature courses specifically. Because of the danger, as Grobman (2005) points out, for such projects to “undermine literary studies rather than imbue it” (p. 129) with cultural significance, we believe it’s important to continue these discussions.

Both of these experiences provide examples of writing about the community, as Deans has described it (2000). We encourage teacher-scholars to consider other ways in which writing-about-community projects could be incorporated into their courses. Additionally, we encourage readers to consider writing-for-community and writing-with-community projects. How might teachers invigorate their classes with such projects? These are questions that we encourage others to continue to explore.

What we hope we’ve shown is that service learning can have a home in literature courses as a way to connect the content of the course to a real-world social (or environmental) issue. Moreover, service-learning can have a home in fields of study where it might not initially seem to belong. And even when there are other obstacles—holding the class online or teaching in a rural community— instructors can find ways around these challenges. If a goal of education is, as Giroux (2011) claims, to encourage “students to take risks, act on their sense of social responsibility, and engage in the world as an object of both critical analysis and hopeful transformation” (p. 14), then instructors should continue to investigate ways in which service learning can invigorate their on-line and face-to-face classrooms.

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The 21st Century Digital Student: Google Books as a Tool in Promoting Undergraduate Research in the Humanities

Lara Karpenko\textsuperscript{1a} and Lauri Dietz\textsuperscript{b}
\textsuperscript{a}Carroll University, Waukesha, WI 53186
\textsuperscript{b}DePaul University, Chicago, IL 60657

Abstract

In this article, we contend that publically available, mass digitization projects, such as Google Books, present faculty, regardless of their specific institutional context, with an exciting opportunity to promote meaningful undergraduate research in the humanities. By providing a classroom case study and by proposing an institutional model, we suggest that the Google Books archive can be a powerful tool in helping to establish research in the humanities as a regular and expected component of the undergraduate experience.

Keywords: Undergraduate research, Google Books, humanities education, case study, writing fellows.

It has almost become a pedagogical commonplace to acknowledge the importance of undergraduate research in promoting deep learning; for instance, in perhaps one of the most enthusiastic embraces of the practice, Dotterer (2002) proclaims it “the pedagogy for the twenty-first century” (emphasis added, 81). Certainly, as professionals in higher education with backgrounds in the humanities, we share and understand Dotterer’s enthusiasm; the humanities’ commitment to reflection, critical thinking, ethical exploration, textual analysis, and independent endeavor suggests to us that the field is ripe for undergraduate research. Despite the seemingly natural fit between the humanities and undergraduate research, the literature surrounding the practice is sadly sparse when compared to the much more developed scholarship dedicated to the STEM (Science, Technology, Engineering, Math) and social science fields (e.g., Thiry, Laursen, & Hunter 2011; Maltese & Tai 2011; Kendricks & Arment 2011; Gibson & Kahn 1996; Palladino, Carsud, Hulicka, & Benjamin 1982).

Because of the relative scarcity of sustained programs that encourage undergraduate research in the humanities, faculty and staff involved in higher education have in recent years tried to identify stumbling blocks that limit the practice. Most notably, in a keynote speech at a 2007 conference titled “Undergraduate Research in the Humanities: Challenges and Prospects,” John Churchill aptly identifies three challenges to humanities undergraduate research: 1) research in the humanities is non-collaborative; 2) humanities research generally requires a great deal of time; and 3) humanities research frequently

\textsuperscript{1} Corresponding author’s email: lkarpenk@carrollu.edu
requires a lengthy internship (as cited in Schantz, 2008). To Churchill’s three challenges, we would also like to add two of our own. The first impediment we identify is structural: vigorous humanities research typically requires a library with an extensive collection of primary or archival materials—a library that the majority of students in the United States simply can’t access. The second impediment is perhaps one of perception: instructors seem to fear that the 21st century digital student lacks the commitment and the attention span to locate, read, and interpret the various texts that successful humanities research demands (Burgess & Jones 2010; Bowman, Levine, Waite, & Gendron 2010; Dunn & Menchaca 2009). In short, to quote the Bad Religion song from which this article draws its title, instructors worry, not always unfairly, that students “don’t know how to read but have a lot of toys.” In this article, we contend that publicly available, mass digitization projects, such as Google Books, can help ameliorate all these challenges and can present faculty, regardless of their specific institutional context, with an exciting opportunity to promote meaningful undergraduate research in the humanities.

By providing a classroom case study and by proposing an institutional model, we suggest that the Google Books archive can be a powerful tool in helping to establish research in the humanities as a regular and expected component of the undergraduate experience.

Lara Karpenko begins with a case study in which Google Books was successfully incorporated into the curriculum of a senior capstone course in English in order to help students conduct primary research as they completed their thesis projects. The resulting projects were engaging, thoughtful, and well-researched. Using this classroom case study as a jumping off point, Lauri Dietz then articulates a vision for promoting a campus-wide culture of undergraduate research in the humanities through the cross-curricular usage of Google Books. More specifically, she advocates that undergraduate research and writing across all humanities disciplines can and should be promoted at the institutional level and offers as an example how a writing fellows program, a program in which peer tutors are assigned to specific classes for an entire term, could be implemented or adapted. Writing fellows programs can potentially provide a fertile ground for promoting cross-curricular exposure to Google Books specifically and to primary research more generally and can thus help promote a campus-wide culture of undergraduate research.

In the relatively small body of pedagogical work dedicated to undergraduate research in the humanities, easily implementable suggestions for helping undergraduates conduct such research are rare (Ishiyama 2002; Levenson 2010.) Though CUR’s themed volume Undergraduate Research in the humanities: Challenges and Prospects (2008), Grobman and Kinkead’s Undergraduate Research in English Studies (2010) and Klos, Shanahan, and Young’s collection Creative Inquiry in the Arts & Humanities: Models of Undergraduate Research (2011) all go far in filling this lacuna, additional work on the subject is still clearly needed. Together, our classroom model and our institutional proposal delineate specific and concrete applications of undergraduate humanities research within any institution of higher education.
Why Google Books?

Because Google Books grants complete access to the nearly dizzying array of texts in the public domain (i.e., texts published before 1923), we suggest that it functions as a virtual archive and can facilitate primary research for students at any institution. While most college and universities libraries feature databases like JSTOR and Project Muse (or Google Scholar) that grant access to contemporary secondary/critical texts, in the past, only students at universities with extensive libraries have had the option of engaging in archival or primary research—a necessary component for many humanities projects. By comparison, as we will demonstrate, virtual archives or textual digitization projects, along with targeted classroom training, provides digital students with the tools they need in order to access information successfully and thus eliminates the need for a lengthy internship.

Though other textual digitization projects, such as Project Gutenberg, certainly exist, we focus specifically on the Google Books archive because the massive scale of the project renders it particularly relevant to our discussion: at the time of this writing, Google partners with 17 domestic libraries—including Harvard, Michigan, Stanford, and the New York Public Library—and with over eight international libraries including Oxford and Keio University Library in Japan (Jones 2010; Lackie 2005). Further, because Google Books does not convert documents into plain text format and instead provides page-by-page digital scans, it allows researchers an opportunity to examine the (virtual) material document—an opportunity formerly only allowed to those who could access elite libraries. Finally, unlike some digitization projects which feature search engines that necessitate a learning curve, like the Internet Archive, Google’s familiar and accessible interface provides digital students with a tool that is at once recognizable and powerful. With this mind, we suggest that the Google Books archive can help instructors to design projects and institutions to design initiatives that not only encourage but require undergraduate students to engage in primary research.

Ever since Google announced its mass digitization project in 2004, it has generated interest in both the popular and the academic presses. In general, the material discussing the project falls into three categories: 1) legal considerations of copyright and the implications of digitizing material not yet in the public domain (Milliot & Albanese 2004; Samuelson 2009, Zeitchink & Milliot 2005); 2) ethical considerations of the ramifications of a private entity owning and determining access to all published texts (Bracha 2007; Lackie 2005; Musto 2009); and 3) considerations of the project’s impact on academic and public libraries (Dunn & Menchaca 2009; Jones 2010; Martin 2008; Roush 2005). Though we know anecdotally that faculty are incorporating Google Books into classroom planning, and though various online forums are debating and discussing the usefulness of Google Books within the classroom (“Students using Google,” 2010), to date few, if any articles have been published which consider the project as a pedagogical classroom tool or that consider the sustained use of Google Books as part of a university-wide initiative. By considering a classroom and an institutional application of the Google Books archive, our collective goal is to provide examples of concrete, hands-on practices that instructors could implement immediately and that curricula could incorporate over time.
A Faculty Member’s Classroom Case Study: Google Books and the Senior Capstone Experience

To demonstrate how individual humanities instructors can incorporate Google Books, I provide a case study that details how I stimulated undergraduate research within my own classroom. While this experience can certainly be buttressed by institutional support, it can also be conducted at institutions that have yet to establish larger initiatives. Further, my co-author and I suggest that successful classroom experiences, such as the one I describe, justify the need for campus-wide initiatives, which would, in turn, support even more individual instructors as they attempt to incorporate primary research as a regular part of undergraduate humanities curricula.

I teach at a small comprehensive university in the Midwest, and for the past three years, I have been incorporating Google Books into the curriculum for the English major senior capstone. Because of the small size of the university, archival resources are scarce. In addition, many students are first-generation college students and find large research libraries intimidating and unfamiliar. Though, in recent years, the university’s rapidly expanding electronic resources (through well-known databases such as JSTOR or Project Muse) and efficient interlibrary loan system have made it possible to teach students how to conduct secondary research, it has still been difficult to create situations that empower English majors to engage in primary research.

I will give a quick overview of the organization of the capstone class before going on to discuss how I incorporated Google Books into the curriculum in order to encourage primary research. At my institution, the senior thesis projects are article-length papers that are completed during one semester and students write their projects on one of three preselected target texts; in this particular case, students had their choice of one of three Victorian novels. In my course, I divided the semester into two halves: the first half of the semester was dedicated to exploring and discussing those novels and the second half of the semester was dedicated to student research, writing, revision, peer-editing, and individualized direction. At the end of the semester, students completed an article-length paper and presented their work in a conference format to an audience that consisted of the following: all students from the course, the entire English faculty, other members of the university (including the research librarian), and an outside reviewer from a local university.

My department instituted this current model of the capstone in 2006 in order to encourage students to engage deeply with the methods of the discipline. While prior course work in the major encourages students to engage in close reading and secondary research, the capstone asks students to intervene in an ongoing critical conversation and engage in both primary and secondary research as they craft their arguments. Soon after the department instituted this requirement, the students’ difficulty with locating primary research was apparent. Since the library at my institution was simply too small to support archival research, students were left with two options: they either neglected to include primary research in their projects or students travelled to other libraries where, lacking the support and community of their home institutions, they quickly became discouraged. As the
strong data that I provide later in my discussion suggests, introducing students to the Google Books archive has almost instantly given students the tools and the skills they need in order to conduct primary research and has thus enabled students to complete high-quality projects in keeping with the standards of the discipline.

In what follows, I will briefly discuss the four part procedure that I used in order to incorporate Google Books into course design so that I could stimulate undergraduate research. Though I discuss this in terms of an English class, as my co-author will show in the next section, the general principles can be applied to a wide variety of disciplines in the humanities.

**The Process**

1. Saturate the class discussion with relevant primary sources that are found in the Google Books archive. Create a thick history for the students. Ask questions that allow students to see connections between the target text and the additional primary sources. Provide a context that encourages students to situate target texts in their larger cultural, social, and historical frameworks.

   Students will not conduct research if they do not understand what research in their discipline looks like. So I model primary research as we initially explore the course texts. For instance, as we discussed Charles Dickens’s *Oliver Twist* (1838), I brought in socio-political tracts published in England during the 1830s that discussed and debated the Poor Law of 1834—a direct inspiration for Dickens’s novel. By bringing primary materials into class, I help create a situation in which students explore the interconnections between the target texts and relevant primary texts; in essence, students conduct primary research on a micro-level every day and learn, through doing, that primary materials can enrich and complicate our understanding of literary texts. As I bring in these primary materials, I also emphasize to students that I locate all primary materials via the Google Books archive.

2. Assign and discuss the content and the structure of scholarly articles. Have students create an outline of a relevant, published scholarly article (sometimes referred to as a “reverse outline”). Discuss outlines as a class.

   Students should understand that primary research is an essential and expected part of the scholarly endeavor. As we discuss scholarly articles in class, I have students outline the article, asking them to pay attention to the article’s structure, to the author’s rhetorical moves, to citations, and to the ways in which an author makes use of both primary and secondary research. As we discuss these articles, students realize, without me having to tell them, that primary research plays a crucial role in the construction of successful and insightful arguments.
3. Demonstrate to students how to use Google Books.

To provide an example from last fall, I demonstrated to the students how I located the primary materials on the Poor Law by modeling an advanced search for the class. Of course, it is not enough for students to know that research is important and required if they do not know how to conduct said research. By introducing the students to the Google Books archive and showing them how to conduct an advanced search, I demonstrate to students that primary research is “doable” and, for the digital student in particular, something familiar.

4. Require students to incorporate relevant primary sources (in addition to the target text) as they complete their capstone assignment.

So that course expectations are clear to students, I require in the assignment that the final project demonstrates explicit engagement with primary materials. Since we spend the beginning part of the semester coming to understand how primary research illuminates a target text, students easily accept and engage with this component of the assignment. Also, in order to make sure that students begin their primary research early on in the process, I require that students locate relevant examples of text- and non-text- based (such as comics, portraits, or maps) primary research as they complete their pre-writing (which also includes a proposal and an annotated bibliography.)

**The Products**

After I began explicitly and deliberately incorporating Google Books into the senior capstone, the results were immediate: 100% of students incorporated primary research into their projects. Though I did not require that students use the Google Books archive specifically (I merely made primary research a requirement), it is also worth noting that 100% of students also made use of Google Books as they conducted their research. In order to assess student reactions to Google Books and primary research, I surveyed the entire class after the course was finished. [See Figure 1 for entire survey.] Students specifically commented that Google Books significantly augmented their research experience. For instance, one commented on the survey “I found [Google Books] unbelievably helpful. . . I loved being able to perform word-searches within the book” (Anonymous, Survey, April 2012). Or perhaps more succinctly, another student commented “Google Books is awesome” (Anonymous, Survey, April 2012). As the students’ favorable commentary suggests, Google Books empowered students to locate primary materials.

Because students were able to locate and read such materials, their final projects were well-researched and featured arguments that were creative and insightful. As mentioned earlier, all students presented their work in a conference format where it was reviewed by departmental faculty, the research librarian, and an outside reviewer. All reviewers were asked to score each individual student presentation on a 3 point scale (3 points: exceeds expectations; 2 points: meets expectations; 1 point: fails to meet expectations); reviewers
Undergraduate Research Survey

1) Given that primary research in literary studies suggests that academics locate and read historical materials in order to illuminate the target text (i.e., the novel), did you conduct this sort of research as you completed your capstone projects? Keep in mind that primary research includes visuals from the time period (i.e., comics, paintings, maps etc.) as well as text based materials (i.e., personal letters, historical documents, travel narratives, conduct manuals etc.) If you did conduct such research, please continue the survey. If you did not conduct primary research, please explain why you felt it was unnecessary.

2) Please articulate what sort of primary materials you located as you completed your projects.

3) Please explain a) if and how primary research benefitted your project in particular and b) if and how primary research is important to literary study more generally.

4) Did you enjoy the process of conducting primary research? Why? Why not?

5) Did you use Google Books as you located your primary materials? If so, did you find Google Books helpful? If not, what databases/search engines did you find helpful? Please explain.

Figure 1. Undergraduate research survey distributed at the end of the senior capstone.

were also asked to discuss their observations and general impressions. [See Figure 2 for complete rubric.]

The numerical results from the capstone conference indicate student success. The mean/average score for “Project demonstrates that student conducted meaningful research” was 2.63 on a 3.0 scale--indicating that reviewers thought the quality of the student research was generally above average (Survey, December 2011). Further, the mean score for “Thesis demonstrated critical sophistication and/or intelligent engagement of primary text” was 2.50 on a 3.0 scale--indicating that students were able to use their research to make original and sophisticated claims (Survey, December 2011). Since 2011-2012 marked the first school year (the year in which this present study was conducted) in which we have begun formally tracking qualitative or quantitative data for the conference presentations, I do not have longitudinal results; however, I want to re-emphasize that student engagement in primary research has historically been an area of weakness at my
RUBRIC FOR JUDGING ENGLISH CAPSTONE CONFERENCE

PROJECT TITLE AND/OR GENERAL SUBJECT OF PROJECT:

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<th></th>
<th>EXCEEDS EXPECTATIONS (3 points)</th>
<th>MEETS EXPECTATIONS (2 points)</th>
<th>FAILS TO MEET EXPECTATIONS (1 point)</th>
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<tr>
<td>Central argument/thesis is clearly stated.</td>
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<td>Thesis demonstrates critical sophistication and/or intelligent engagement of primary text.</td>
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<td>Project demonstrates student conducted meaningful research.</td>
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<td>Presentation is polished and professional.</td>
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Additional Comments/questions:

Figure 2. An example of a reviewer ballot.

institution. Thus, as the strong qualitative and numerical scores suggest, intentional introduction to the Google Books archive has almost instantly improved student research.

Reviewers commented favorably not only on the depth of the research but also noted that the research resulted in strong and complex arguments. For instance, one reviewer remarked “Great use of primary sources beyond novel.” Another reviewer suggested that the projects demonstrated “good integration of primary sources.” And in another comment, a reviewer noted that the students’ arguments were “consistently evocative” (Anonymous, Survey, December 2011). Of course, I do not want to paint an overly optimistic picture: students did have varying degrees of success with locating and incorporating research in order to strengthen their own claims. But I do want to emphasize that Google Books’ extensive archives and accessible interface did allow every student to engage in the research process to some degree.

Finally, and counter to the myth that 21st century digital students only read in 140 character increments, I found that students embraced the process of primary research and read deeply and widely. Class sessions were spent with students enthusiastically sharing with me and with one another the fascinating, the troubling, and the sometimes hilarious artifacts they were able to locate. Though some critics, such as Werts (2010), understandably lament that a digitized text has “no … sensual appeal” and cannot “smell like it was read.
long ago by a girl on a porch swing one late autumn evening” (53), I contend that the digitized text produces its own kind of magic. Because digitization facilitates access, it allows students to discover texts that they might have otherwise overlooked—especially at a university with a limited library. Indeed, as we spent several productive and engaged class sessions not only examining the content of the texts themselves, but encountering their material reality—the illustrations, the typeset, the advertisements—it became clear that the students were astounded at the fact that they could interact with history so profoundly. In short, I suggest that digitization has enabled students to encounter the textual sensuality and, indeed, auratic capacity that Werts fears has disappeared.

Even more important than inspiring student enthusiasm however, Google Books granted students access to an extensive archive and helped students to understand and articulate why primary research augmented their projects in particular as well as humanities projects more generally. One student commented, “Primary researched greatly benefited my project, mainly because it helped ground much of my discussion in fact rather than conjecture…. As an undergrad, I am well aware of my limited experience in academic research. I believe the best way to overcome this limitation is through primary research…. Rather than relying on a professor or a contemporary analysis of the period, I was able to draw my own conclusions based on the primary texts I located” (Anonymous, Survey, April 2012). As this student so aptly indicates, primary research—particularly when it’s locatable via an engine that digital students can readily access and use—empowers students to make their own claims and, thus, moves beyond a model where the instructor imparts all information. Instead, students discover the processes by which they can discover and create new knowledge.

I would like to close my section by emphasizing that I could not have assigned or expected these sorts of results a few years ago. Though, as my co-author details in the next section, institutional partners are instrumental in promoting a campus-wide culture of undergraduate humanities research, my individual classroom experiences with Google Books helped empower me to promote undergraduate research with my own department. At an institution such as mine with a small library, it would have been unfair to expect students to conduct primary research if publicly available digital archives did not exist. Fortunately, however, the Google archive uniquely puts every student (and every global citizen with access to a computer) in touch with the holdings of the world’s most elite libraries. To some extent, the reluctance of faculty, staff, and librarians to incorporate Google Books into classroom or institutional planning is certainly understandable. Digital students sometimes avoid the library and as Bracha (2007), Lackie (2005), and Musto (2009) all point out, Google Books could perhaps pose a threat to the nonprofit library; however, as my co-author will discuss in the following section, I found that as students located primary materials via the Google Archive, it actually caused them to use their home libraries more as they sought support to understand the new texts they were encountering. Further, though I certainly share some of these concerns that the Google Books archive could render university libraries obsolete, I argue that the project crucially democratizes the research library. Because universities like Harvard and Michigan are willingly working with Google Books in order to promote universal access, undergradu-
ate research in the humanities is no longer reserved for students at elite institutions with vast holdings. Now every student can be a researcher.

**A Writing Director’s Vision for the Future:**

**Writing Fellows Programs and Google Books as Tools in Creating an Institutional Culture of Undergraduate Research**

In the previous section, my co-author delineated how Google Books stimulated undergraduate research within her classroom; in this section, I will widen our focus a bit and consider how Google Books can be incorporated into campus-wide programming. The power of Google Books to allow a broad cross-section of students to engage in archive-based research can best be maximized if there is a concerted and collaborative effort between university programs and faculty. Or to put it another way, undergraduate research in the humanities can best be promoted through a university-wide infrastructure. Based on my experiences as a director of peer writing tutor programs, I suggest that a writing fellows program can provide that needed infrastructure.

To be clear, the merging of research and writing in the writing fellows process is hypothetical at this point and the implementation would require significant campus “buy-in” because a university-wide program requires collaboration between various constituencies of the university community: from faculty, from staff, from librarians, from administrators, and from students themselves. Navigating between such diverse constituencies does admittedly pose challenges. However, the achievable and desirable learning outcomes my co-author delineates suggests that the question isn’t if universities should find ways to create more institutional support for undergraduate research in the humanities but how. I suggest that because Google Books is essentially an interdisciplinary archive, it can begin to point us towards the “how.” Further, many of the specific recommendations made in this section do not require the roll out of a comprehensive program, but are practices individual instructors and departments can start implementing immediately.

In what follows, by focusing on Fellow Training, the Fellowing Process, and After-Fellowing Outreach, I lay out a procedure that would be workable at a variety of institutions. Though diverse in design, the model Haring-Smith introduced at Brown University in 1982, and that other programs such as University of Wisconsin, Madison, George Mason University, and the University of Iowa have implemented, would work well for incorporating a research component into the writing process: in this model, specially selected and well-trained peer writing tutors are assigned to specific classes where all students in the class work with a writing fellow. For two papers during a term, writing fellows comment on student drafts as an engaged reader with revision-oriented feedback. After each round of commenting, fellows meet one-on-one with their assigned students to discuss the comments and work on revising. By adding research support to this structure, writing fellows programs have the potential to give the students who work with fellows, as well as the fellows themselves, increased opportunities within one-on-one consultations to navigate the challenging and, at times, daunting research and writing processes.
Training


The success of any peer writing tutor program requires rigorous and on-going training; writing fellows would need to learn both how to use Google Books and how to tutor students with Google Books. Because of the Writing Across the Curriculum focus of writing fellows programs, these projects can stimulate fellows to learn about the sources, methods, and research questions valued by a range of disciplines. For example, what would it mean to research childhood in an English class versus a history class versus a religious studies class? A project such as this would give writing fellows experience using the Google Books archive as well as learning about discipline-specific epistemologies and expectations for writing. They could also use Google Books to research a topic related to writing or tutoring. Either way, the key is to give writing-fellows-in-training as much hands-on experience as possible.

2. Collaborate with Librarians.

Whether in a training course or in other training venues, such as orientations and inservices, bring in librarians to train writing fellows in how to locate primary sources in databases such as Google Books. I have found that these types of one-time trainings can be particularly helpful if a portion is focused on troubleshooting. What are strategies that experienced researchers use when they face challenges or barriers to their research? What are the best practices for performing successful searches?

Librarians are also key allies for writing fellows to stay in communication with throughout the process because they typically have discipline-specific knowledge that writing fellows, who are often generalist tutors, do not. More and more libraries have helpful online research guides that point students towards discipline-specific resources, including librarians. [see Figure 3.] Writing fellows can serve as an important bridge between students and librarians. The findings of the recent ERIAL (Ethnographic Research in Illinois Academic Libraries) project, “a two-year, five-campus ethnographic study examining how students view and use their campus libraries,” point toward an alarming conclusion: “students rarely ask librarians for help, even when they need it” (Kolowich 2011). While the ERIAL project researchers advocate for the influential role faculty members have in pushing students to librarians, I would add that peer educators, such as writing fellows, can also be instrumental in helping students feel empowered to solicit librarians for help. Even with the more user-friendly and familiar interface of a Google Books search, “the Illinois researchers found something they did not expect: students were not very good at using Google” (Kolowich 2011). Thus, writing fellows with their own training in best practices for Google Books searches combined with their connections to librarians have the potential to be a game changer.
in helping students become more savvy and expert researchers in humanities disciplines.

**While Fellowing**

1. Practice with the Assigned Faculty Member.

Ideally, faculty/writing fellows relationships begin with a meeting where the faculty member and writing fellows discuss the course goals, assignment expectations, and role of the writing fellows. For an assignment requiring Google Books, the fellows can conduct a search in front of the faculty member as a way to test out the clarity of the assignment and to potentially foresee where the pitfalls may be. This way, the fellows and faculty member can strategize together about how the fellows can best work with students so that students are fruitful in their primary research endeavors. If needed, it would also give the faculty member time to make any necessary revisions to the assignment instructions or to determine how to use in-class time to clarify, reinforce, or model particular components of the assignment.

2. Reverse the Order.

In the traditional writing fellows model, each paper cycle begins with fellows commenting on a draft followed by a conference. If writing fellows programs give an option to reverse the order, then the fellows can intervene at an earlier stage of the research and writing process. The initial conference can be a brainstorming and planning conference where the student and fellow use Google Books, and other relevant databases, to generate research questions and plans of action. Having a fellow collaborate with a student at the start of the project can be particular-
ly powerful for students who do not have significant research experience or otherwise feel intimidated or overwhelmed by the process.

3. Provide Models of Best Practice.

Writing fellows can help students learn how to perform advanced searches in Google Books so that they are appropriately narrowing or expanding their search criteria to yield the most relevant results. [See Figure 4.] The advanced search possibilities can also be a useful heuristic for fellows as they assist students in identifying their focus and research question. For example, if a student is working on a history project about Napoleon and is struggling to find a focus, the writing fellow could ask about other languages the student can read and how those other languages might give the student a potential avenue into the project. If the student has been studying German, then maybe this could be an opportunity to combine the two and investigate Bavarian responses to Napoleon. A discussion about language can be particularly emboldening for students from whom English is not a first language: their multilingualism quickly becomes an asset. Even asking students a seemingly simple question about which years to narrow a publication window can produce fruitful discussions about how to refine a research question. To continue with the Napoleon example, how would the project change if the student decided to focus on the Bavarian response pre-versus post-Waterloo?

Google Scholar is an ideal complement to Google Books precisely because of its ability to connect to a university’s library. Under “Settings,” a user can select

![Figure 4. A screenshot of the Advanced Search page in Google Books](http://books.google.com/advanced_book_search).
“Library Links” and enter his or her institution so that all Google Scholar results will show whether or not a source is available either in house or as a full text through the user’s library. [See Figure 5.] Writing fellows, ideally in collaboration with librarians, can help students find the most pertinent scholarship connected to their research questions. Students, then, experience what it is like to be part of a larger humanities-based discourse community where scholars are engaged in animated and competing debates about the meaning and significance of human-made artifacts. By completing sophisticated and relevant primary and secondary research, undergraduate students in the humanities increase their likelihood of producing a valid argument to be shared through professional conference presentations or publications. As Churchill suggested in the keynote address we noted earlier, humanities-based research is still predominantly a solitary venture, which means students have fewer opportunities to conduct research under the guidance of an experienced mentor. As such, I believe a writing fellows program that uses Google books in targeted ways can provide the needed scaffolding to support students as they experience the rewarding but challenging demands of research in the humanities.

**Figure 5. Screenshot of where to add a researcher’s preferred libraries to sync with Google Scholar** ([http://scholar.google.com/scholar_preferences?hl=en&as_sdt=0,14](http://scholar.google.com/scholar_preferences?hl=en&as_sdt=0,14)).

**After Fellowing**

1. Sponsor an Undergraduate Humanities Research Showcase or Conference.

Writing fellows programs can do on a larger scale what my co-author does at the end of her senior capstone. Giving students a public, institution-wide audience for sharing their research endeavors and results affirms the curricular value placed on primary research. Whether the material appears in a showcase (i.e., poster presentation) or in the conference format that my co-author suggests, writing fellows can be key allies in preparing undergraduates to share their work with the campus community.
2. Create a Venue for Publishing Undergraduate Humanities Research.

Writing fellows programs can also publish some of the best examples from the courses they fellowed. Whether electronic or hard-copy, publications can create a record of successful examples of undergraduate research in the humanities, which faculty members can then use as models when they teach a class focused on primary research and writing.

3. Don’t Forget to Assess

While the Writing Fellows program at my institution does not formally support undergraduate research processes yet, we do assess every course supported by writing fellows each term. We have found greatest success in getting faculty and students to complete a brief evaluation survey about their experiences working with writing fellows by attaching the survey instrument to the university’s course evaluation process; students fill out a writing fellows evaluation at the same time they are filling out one for the instructor. [See Figure 6.] Our evaluations have been instrumental in developing and revising our policies, training, marketing, and talking points with writing fellows, faculty, and students. While our writing fellows do not yet play an official role in mentoring students through the research process, feedback and conversations around research practices do filter into the process. For example, students in upper-division and research-intensive History and American History courses have commented that writing fellows helped them incorporate evidence more effectively into their projects and students in a Research Seminar course within the university’s college for returning adults have reported writing fellows helped them gain skills with writing an APA research paper (Survey, Winter 2012). These responses suggest great promise for the potential success of a writing fellows model more explicitly structured around research and writing. This assessment process can be used to evaluate the effectiveness of using Writing Fellows and Google Books to support an undergraduate research in the humanities initiative.

Based on the dynamic potential of writing fellows programs to support university-wide efforts for meaningful undergraduate research in the humanities and based on the adaptability and depth of the Google Books archive, the above suggestions could ignite an institution-wide interest in undergraduate research. Such an institution-wide initiative, when coupled with targeted classroom experiences that my co-author describes, could radically change the face of undergraduate research and effectively ameliorate the obstacles to the practice that we laid in the opening of this article.

**Conclusion**

Throughout this article, we have emphasized that undergraduate research in the humanities is implementable at both the classroom and the institutional levels. We also want to emphasize that the examples we discussed are merely starting points and we certainly don’t want to suggest that Google Books can function as a “magic bullet.” For students
interested in periods before 1700 or after 1923 for instance, Google Books would be of limited use and other resources will be necessary to fill these gaps. However, though there are limitations to what we proposed, we write this piece partly to advocate for instructors and for institutions to consider the exciting ways in which textual digitization archives can be incorporated into course design or into institutional planning. For instance, students could create wikis that link to relevant digitized documents; students could create a hyperlinked target text that highlights historical context and/or student generated discussion; or, students could create online resources for future humanities teachers and their students, such as demonstrated in one student’s ePortfolio on Ralph Ellison’s *Invisible Man*, which can be viewed here: https://depaul.digication.com/invisibleman/Home.

Of course, as the hypothetical nature of our institutional vision suggests, larger initiatives that encourage undergraduate humanities research are still all too rare and instituting a campus-wide culture of undergraduate research in the humanities will take time, vision, and creativity; ultimately, we suggest that the ease and accessibility of Google Books can aid in creating this new culture. In these uncertain economic times, when many are proclaiming the “death of the humanities,” we hope that fostering research skills can remind us all that the rigorous complexities involved in humanities undergraduate research are exciting, teach students transferrable skills, and can invigorate a culture of inquiry. Moreover, and perhaps more importantly, to paraphrase Cronon (1998), undergraduate re-
search in the humanities helps forge connections—connections between students; connections between faculty and students; connections between students and texts; and connections between us and our richly textured pasts.

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