# PROCEEDINGS

Fourth Annual Dalton State College Teaching and Learning Conference

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Congratulations to Ms. Cheryl Owens, Assistant Professor of Medical Assisting, the first (ever) recipient of the CAUGHT IN THE ACT OF GREAT TEACHING award.

Cheryl was given this award in a surprise ceremony in her classroom on April 29.

She received the evidence supporting her nomination (the kudos from her students), a $25 Amazon gift card (provided by Dalton State Athletics), a mug, and a “Caught in the Act of Great Teaching” plaque created by Dr. April Kay of the Department of Natural Sciences.

Cheryl co-authored one of the articles in this edition of the Journal (see page 12).

Calling all experienced reading group facilitators!

The Center for Academic Excellence is looking for faculty members to lead the book groups during fall semester. The books are

**Team-Based Learning: A Transformative Use of Small Groups in College Teaching**

by Larry K. Michaelsen, Arletta Bauman Knight, and L. Dee Fink

and

**The Art of Lecturing: A Practical Guide to Successful University Lectures and Business Presentations**

by Parham Aarabi

Contact Katie Pridemore (kpridemore@daltonstate.edu)

Look for a survey on faculty development—coming in August to an inbox near you!

Manuscripts for the August 2013 edition of the *Journal for Academic Excellence* are being solicited. If you would like your article to be considered for the August edition, please submit by July 31. It will be peer reviewed by three faculty members other than the editor.

Submissions guidelines are on page 34 of this edition.

Later submissions will be considered for the November edition.
Innovations in the Studio: Videos as Design Presentations

Sarah J. Boykin

University of Tennessee at Chattanooga

Abstract
In Fall 2012 students in an Interior Design studio at the University of Tennessee at Chattanooga (Responsive Design, INTD 4050) were assigned a project to design a disaster relief shelter for an international design competition. They were required to develop a three-minute video presentation of their design project, using photographs of drawings and models, as well as selected photographs and specific images which illustrated their design solutions. This paper will describe the design project assignment and the development of video presentations as an important studio innovation. It will be presented as a case study, assessing the learning outcomes from the project, with a particular focus on the ways in which the video requirement influenced studio pedagogy and was an effective communication format in the presentation of student design projects. It also will reflect on how video presentations may be utilized as innovative forms of communication for teaching and learning across the curriculum.

Author Information
Sarah J. Boykin is a graduate of the University of the South, with a master’s degree in architecture from the University of Texas in Austin. A registered architect with over twenty years of professional experience, she currently is an assistant professor in the Department of Interior Design at the University of Tennessee at Chattanooga, where she teaches design studios, including Space Planning, Responsive Design, and Contract Interiors II. She has served on UTC Chancellor-appointed committees on sustainability and currently is the Chair of the UTC Faculty Senate Committee on Sustainability.

This paper is presented as a case study of a design project assignment in an undergraduate Interior Design studio at the University of Tennessee at Chattanooga in Fall 2012. In this course students designed a disaster relief shelter and presented their final design work in a video presentation format (instead of the traditional format of rendered drawings and materials boards). This paper will analyze some of the ways in which the use of iPads and the multimedia video format for presentations enhanced the studio learning experience and influenced the design process. It also will demonstrate how the video format for design presentations represents an important classroom innovation, offering a more integrated and dynamic platform for presentations of student projects, while engaging students in creative problem-solving, connecting the studio and the community and practicing the art of storytelling.

Although the described project was for an Interior Design studio, “Innovations in the Studio,” is offered as a recommended format for student presentations in multiple disciplines across the curriculum, rather than as a model for a particular discipline. As a “classroom innovation,” it provides a framework for utilizing iPads to develop innovative and engaging presentations for teaching and learning across the curriculum.

Summary of Design Studio and Project Assignment
In the Department of Interior Design at the University of Tennessee at Chattanooga, Responsive Design (INTD 4050) is a required studio course in which students learn about environmental, social,
and cultural challenges of our time, including the scientific predictions that disaster events are likely to be more frequent and severe due to climate change worldwide (Roaf, Chrichton, and Nicol, 2005). Through lectures, assignments, field trips, and design projects, students learn about sustainable design, utilizing green building systems and responding to the social, cultural, and environmental factors related to a particular design challenge.

In Fall 2012 the Interior Design Educators Council (IDEC) sponsored an international student design competition for a disaster relief shelter. Not only was it a good project for this studio course, but it also required students to create a three-minute video of their work for the competition submittal. In this upper level studio students are encouraged to utilize different technologies in the development of design projects and to use software programs as design tools in project development. With the competition as an opportunity both to engage students in addressing a real world design challenge, i.e. a design for a disaster relief shelter, and to develop the design presentations as videos, this project was developed as the primary design work for the course. Studio assignments were developed to support project development and the new presentation format. A UTC ThinkAchieve grant provided funding for an iPad, studio instruction, and hands-on training for the production of the videos.

Process

The studio was organized into three student design teams (with two to three students). Each team was responsible for the project research, design development, graphic drawings, design models, illustrations, and images, i.e., the typical requirements for a design project presentation. Utilizing standard design drawings, materials, products and systems, research, and a finished building model to describe their design solution, students then photographed their work. Using iPads and apps (iPhoto and iMovie) they developed a video design presentation of their project, weaving together photographs of their drawings and models with narrative, music, and text. Each student team created a three-minute video design presentation, which was uploaded on YouTube for public viewing and as an official submission in the Interior Design Educators Council competition “Design for Disaster Relief.”

The Typical Process for a Studio Design Project

In a typical design studio, students are assigned projects which address specific course objectives. The design project process includes evidence-based research and information gathering to satisfy project requirements, client needs, and design goals. Students develop sketches and schematic design drawings, addressing space planning, functional organization. Since graphics is the language of design, students are taught how to create two-dimensional and three-dimensional drawings, which represent good design solutions. Their design solutions are then produced in final presentation drawings, building models, and presentation boards.

At the end of the project students present their work in oral presentations, usually about ten to fifteen minutes, with drawings, models, and boards, used to demonstrate their design solution. Professional jurors critique their presentation and design projects. And, if you asked most students, they probably would tell you very quickly that they dread the presentations, worry about the presentations, and are usually anxious and nervous throughout the presentations.

In assigning the disaster relief project and requiring a multimedia presentation format and video, the following questions were proposed as part of the learning experience:

- How might technology, specifically software programs and tablets, enhance the studio learning experience in project development?
- Would the video format be a more effective way for students to present their projects? And, if so, how?
- How would it change the conventional production of rendering drawings, models, and boards for presentations?

There were many lessons learned and important pedagogical changes that occurred in the studio as a result of this project and this new presentation format. This paper will focus on some of the important things learned from a teaching...
perspective and to reflect on how using a multimedia format in the studio engaged students in expressing concepts and solutions through visual media and design stories.

Methodology: Scope of Design Project

In designing the disaster relief shelter, each student design team was required to address four primary design challenges. The first challenge was to design for place and culture by developing context-based solutions. The IDEC “Design for Disaster Relief” Competition specified that the design be developed for a particular geographical location in response to a particular disaster event. The shelter also was required to be transportable and to utilize green building systems and strategies in its design. In studio discussions, students decided that their shelter would be designed for Chattanooga in response to tornado events. It was conceived as an opportunity to design a “real world solution” to a current need and common concern.

Preliminary fieldwork and research included a site visit to a local neighborhood and interviews with a resident and a tour of her family home. With the project goals of designing a shelter for Chattanooga residents whose homes had been destroyed by a tornado, visiting an historic in-town neighborhood provided a context for locating their project in the Chattanooga community. With a tour of a local resident’s summer camper, a 262-square-foot trailer that slept nine, students experienced the issues and challenges of the project: to create a functional yet compact design with adequate storage, multi-functional living spaces, and utility connections. Assignments were context-specific, including essays and reflections on site visits. Students’ design research was evidence-based, identifying systems, materials, furnishings, and finishes that would be appropriate for the temporary, portable home.

The second challenge was to design for people, addressing human needs for shelter, balancing private realms and social spaces, comfort and security, and addressing connections to public spaces and natural environments. Students researched the social and psychological factors related to disaster relief, as well as the importance of neighborhoods and community support systems in promoting health and wellbeing. They also researched biophilic design and the importance of promoting human-nature connections, including daylighting, views, outdoor spaces, and natural ventilation. Biophilic Design (Kellert, Heerwagen, and Mador, 2008) was a primary text used in project research.

In researching disaster relief design responses and in studio discussions, students imagined what it would be like to lose one’s home and possessions in a storm. Having experienced a devastating tornado in the Chattanooga area in Spring 2011, students had seen the images in the media and heard the stories of lives changed and property destroyed. Students examined the importance of social connections to family, friends, and neighborhoods in maintaining a sense of community. They also imagined, if they had lost their homes, where they most would want to rebuild and what important connections would need to be considered to make it possible. The following questions were explored:

- As interior designers how might we design a disaster relief house/shelter that reduces stress, provides security, facilitates social connections, preserves a neighborhood, restores natural areas so that individuals can recover, heal, and rebuild?
- What are the essential needs? What are the design goals?

Students recognized the value of keeping social relationships intact and made a collective decision to propose that shelters be built/located in existing neighborhoods on properties where homes had been destroyed. Conceptually, this was understood to be in the rear of the lot. Each shelter was required to be a maximum of four hundred square feet home to house four people, with sleeping, eating, and bathing areas. Students designed the structures to be one-story, handicap-accessible homes to maximize flexibility for mobility impaired individuals. The shelters were designed to be replicable at a scale that would facilitate neighborhood preservation and to provide shared outdoor spaces such as gardens, playgrounds, and soccer fields to promote social well-being and cultural vitality. Students utilized biophilic design principles to design shelters with views of existing green spaces and access to shared outdoor areas,
in order to strengthen the connections of people with the natural outdoor environment.

The third challenge was to design for the environment, to utilize green building strategies, materials, and systems. Each project incorporated water conservation strategies, rainwater harvesting, and storage systems for grey water use. Renewal energy systems, such as photovoltaic panels, daylighting, structural insulated panels, and high-efficiency lighting, were among the energy efficient strategies utilized in the designs. Each project also used recycled and locally available materials, products, and furnishings.

The fourth challenge was the development of the three-minute video presentation of their design project. While each of the first three challenges presented unique opportunities to engage students in developing creative design solutions, the fourth challenge, the development of a video design presentation, was an innovation that proved to be transformative in teaching students how to weave narrative, images, and drawings, into a compelling design story.

When they began working on their video presentations, students received some training, but they primarily learned together, through practice and experimentation, how to design and format their work. They converted the typical studio production assignments of drawings, materials, and models from fixed images to a movie narrative. Students photographed their drawings, boards, and models using iPads and the iPhoto app. Images and photographs were collected to illustrate their design solutions. They researched similar video presentations and studied good examples of video design presentations. With additional studio instruction in process and technique, students created a storyboard, outlining the sequence of text and images to include in the video. They wrote a narrative for each project, organizing graphic content, audio, and video images, and using the iMovie app to create a three-minute video. In response to this fourth design challenge, students learned to develop their design solutions using multiple media formats, organizing drawings and graphic content, photographing models, and learning techniques and strategies for video productions.

Discussion

The digital media format, using iPads to develop the design presentations, proved to be an effective innovation in developing student presentations. Students were more interested and engaged in project research, design development, and describing the challenges, opportunities, and proposed design solutions in the video format. One of the learning outcomes was to recognize that the digital production of drawings provided a better quality of graphic presentation (than hand-rendered drawings) due to the need for clarity of enlarged images. The video design presentation format, while utilizing additional technology and equipment, was also very affordable. An iPad purchase is approximately seven hundred dollars, and the purchase of iPhoto and iMovie apps for the video presentations is less than five dollars each (2012 pricing). Design presentations also can be developed on a laptop computer, which students are required to have for studio projects.

Another advantage of video presentations is that the projects, as digital presentations and portfolio work, are portable and can be stored and distributed electronically. And finally, unlike most oral presentations, students can practice—in fact, must practice—then edit, and finally record their presentations. More importantly, perhaps, the students practiced the art of storytelling in developing the presentation narrative. They used notes from site visits, fieldwork, interviews, and assignments to describe their designs as responses to the needs of people, the character of place, and the expression of culture. This was perhaps the most significant innovation in developing the presentations. Students were eager to tell their own unique design story and utilized images, drawings, music, and narrative to produce the videos for their presentations.

In design education and professional work, digital technology is providing new opportunities to communicate, connect, and distribute projects. While graphics is still the universal language of design, the video format represents an important studio innovation in shifting the emphasis from producing work to telling a story. This project demonstrated its value as an effective tool in
teaching students about the ways in which their education and training as interior designers can be used to address real world needs and to serve others, designing spaces that are not only functional, but that can also strengthen social connections, preserve natural environments, and promote human health, vitality and well-being. While there were many engaging issues and interesting challenges in the design of the disaster relief shelter, the video format was instrumental in transporting the designs from the drawing tables to the communities, teaching some valuable lessons in multimedia production, including how to create design stories as reflections of people, place, and culture.

Acknowledgements
The following individuals are acknowledged with gratitude for their support and involvement in the course development. A UTC ThinkAchieve “Inside the Classroom” grant provided funding. Dawn Ford, Assistant Director of UTC Walker Teacher Resource Center and Director/Administrator of UTC ThinkAchieve Grants, provided invaluable support and encouragement. Angela Ballard, a UTC graduate assistant, provided training and support in using the iPads to develop the video presentations. Jessica Etheredge, a faculty member in the Department of Interior Design, was a co-applicant on the UTC ThinkAchieve Grant and provided studio assistance in developing the videos. The students in the course, INTD 4050, Responsive Design, Fall 2012, deserve much credit for their outstanding accomplishments and creativity in the production of the video design presentations.

References
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Attendees were actively learning about teaching at the conference!
Using the iPad as a Time Management Tool: Strategies for the College Classroom

Jenny Crisp

Dalton State College

Abstract
The author makes extensive use of the iPad in her computer-lab-based Learning Support English class to reinforce the value of practice for these students who are adjusting to the requirements of college. The iPad is used for recording and updating practice test grades as students work in class and for recording homework. Speed and confidentiality are increased and classroom disruptions decreased. The author uses the D2L app Assignment Grader Pro to evaluate Dropbox assignments and access rubrics and leave oral and written comments both online and offline when wireless is not available, allowing quicker response to student work. Finally, in upper division classes, she uses the iPad as a “loaner” device for students without their own mobile device when she uses in-class backchannel discussions with services such as Socrative.com.

Author Information
Dr. Jenny Crisp is Assistant Professor of English and QEP Director at Dalton State College. She is interested in digital humanities and distance education. Her recent research examines the effects of audio feedback on student success in composition courses and in online classes. Other research interests include automated writing evaluation, interactive games as learning tools in distance education, and web-enhanced student discussion and peer editing in both distance and face-to-face courses.

Background
One of the primary advantages of using an instructor iPad in the classroom is in preserving class time. It speeds up the many administrative functions that seem to take far too much of our valuable class time. Also, the iPad can speed grading and response time to student writing. This helps students, especially those who are writing a draft and will be doing further work with the same project. The more quickly we get feedback to students, the better able they are to remember the piece of writing and to use the feedback to improve.

Grading on the Fly
One of the most beneficial uses of the iPad is in quickly entering grades in a learning management system. For example, in my English 0098 classes, which are taught in a computer lab, I will get students started on a practice COMPASS while I go around and record their completed self-evaluation charts. They need these charts on a daily basis, so I prefer not to take them up. Also, when students work on online practice or quiz games for a grade, I record as they finish, and then the student can move on to the next assignment. In classes that do not meet in computer labs, I use the same technique to record homework completion while students work in groups.

Notes on Student Needs
Sometimes I use classroom response systems (“clickers”) in my classes, but I have found that varying the interactive portion of the class helps to keep students more engaged than using one technique, however engaging that technique may be. For variety, sometimes I have students write on the whiteboard, either in groups or individually. For example, I generally have them vote on topics we need to review before tests. I have them give me a list of topics, and then students come to the board to rate their top three priorities. This can lead to a lot of writing on the board, especially in a larger class. Rather than try to write down each topic and how important it seems to be students, I simply
use the iPad to snap a picture of the board so that I can look at it later as I plan our review sessions (See Figure 1, page 9).

**Student Use**

I have handed the iPad with a paper topic on the display to a student who had forgotten his login information for our writing software. Other students have used it to look up answers to questions or definitions or spellings if they do not have a dictionary. If we need an answer I do not know in order to continue our work, or, more to the point, if an individual student seems to need that answer in order to focus fully, I could look it up on the instructor terminal, but having the student with the question look it up allows the rest of the class to continue while awaiting the answer.

**As a tool for interaction**

In my upper division classes, I like to include a backchannel discussion with my large group discussions or Socratic seminars. This can be done with Twitter, but I have found that I like to use Socrative.com. Regardless of the service used, however, a backchannel discussion allows for some on-topic side conversation, and it helps to get all students engaged, including students who may be shy or reluctant to speak up in a large group.

Generally in these classes, most students are in possession of a device that they can use to access the Internet, either a phone, a tablet, or a laptop. However, it often seems that the students who are the most shy, the least likely to become engaged in the live discussion in the classroom, are also the students who do not possess a personal device. It has been invaluable to me to be able to hand those students an iPad. It can serve as a subtle hint that the student needs to participate more actively in the discussion while at the same time giving the shy student an alternative to trying to speak up (See Figure 2, page 10).

**In Grading**

I use the free app, Desire2Learn Grader Pro, to respond to student writing. This app allows me to download a set of student papers while I have wireless Internet access, and then to work on those papers whether or not I happen to be somewhere with Internet access. I can use written feedback, the rubrics which I have already set up in my online class, and audio feedback on my students’ work. When I return to an area with wireless Internet access, the app will automatically synchronize the work I have saved with the dropbox that students can see in Desire2Learn and with my grade book in Desire2Learn, so that I do not have to enter grades separately (See Figures 3 and 4, page 10).

One of the things that my students like the best about electronic feedback on writing is that I can record audio feedback. This lets them listen to suggestions as well as read them, and I think many students find this easier to understand. In fact, in class evaluations, several of my students have commented that it feels like sitting with me, talking over the writing, almost like an individual conference, when they get that audio feedback. Of course, that audio feedback takes much less class time than having individual conferences.

*Continued on page 11*
Figure 2. A backchannel discussion in Socative.com

Figure 3. The main interface in Desire2Learn Assignment Grader Pro

Figure 4. Use of a rubric in Desire2Learn Assignment Grader Pro
Finally, the iPad helps in providing written feedback as well. I try very hard to give students both audio and written feedback – the same feedback in both forms – so that they can determine which method works best for them, and so that it is universally accessible regardless of student abilities and disabilities. One thing that the iPad allows is speech-to-text recognition (See Figures 5 and 6). If I speak clearly, and enunciate the punctuation, the iPad transcribes what I say quickly and accurately. I use this with my audio comments as well, recording them in both formats at the same time. The speech recognition works so well, in fact, that I have dictated this article to the iPad.

Figure 5. To enable speech-to-text on an iPad, tap the microphone.

Figure 6. Example of text rendered by the iPad’s built-in speech-to-text function

Hi, test students, this is a test of the speech to text function on the iPad. I hope this works, because it is unedited.
Use of the iPad to Improve Student Clinical Proficiency

Traci R. Bramlett, RN, MSN, FNP-C, University of North Carolina-Wilmington
Cheryl W. Owens, CNM, MN/MPH, Dalton State College
Lisa Hunt, RN, MBA, Dalton State College

Abstract

Three professors in the School of Health Occupations at Dalton State College utilized iPads in clinical instruction to increase student engagement. Students were engaged in finding apps for the iPads that would facilitate their learning and work as well as learning and researching uses for iPad technology in patient care.

Authors Information

Dr. Bramlett has taught nursing at Dalton State College and has recently taken a position at the UNC-Wilmington. Ms. Owens teaches in the Medical Assisting program at Dalton State College and recently was recognized with the “Caught in the Act of Great Teaching” award based on exceptional student feedback. Ms. Hunt teaches in the Licensed Practical Nursing program at Dalton State and has been active in the initiation and leadership of the Faculty Senate.

Background

Educators constantly strive to increase student engagement and spark their desire to learn (Barkley, 2010; Blumberg, 2009). In healthcare, it is vital that our students make the transition from a cursory knowledge of content to integration of knowledge into the delivery of patient care. Students who are actively involved in the learning process have demonstrated a higher ability to make the transition to achieve the higher level of performance. Consequently, instructors are constantly searching for innovative methods to instruct students as well as facilitate their ability to perform patient care safely.

In January of 2013, three professors from the Dalton State College School of Health Professions began using iPads in both the classroom and clinical areas to foster retention and application of content related to healthcare and the delivery of patient care. The following are exemplars from three different healthcare programs at Dalton State College. The three programs represented are the Licensed Practical Nursing (LPN) Program, Medical Assisting (MA) Program, and the Registered Nurse (RN) Program. The perspectives are provided by instructors from each program.

Licensed Practical Nursing (LPN)

Critical thinking skills are the foundation behind the methodology used to drive the LPN student toward the problem-solving and decision-making skills that foster the application of knowledge. The students are learning that every patient presents with a unique combination of symptoms, and that all body systems, chronological age, developmental age, medical history, medication history, allergies, etc. play a role in the decision-making process and in the delivery of care. Using case studies as a tool to learn the method has shown to be successful by this instructor (Hunt). The iPad offers an opportunity to practice this skill set in the LPN classroom.

The Prognosis Your Diagnosis application (a free download, also available on Android) has been the application of preference for this instructor for critical thinking skills enhancement. The application can be programmed specifically for the nursing student. It allows the instructor to choose from many interactive, online case studies. Each study
outlines the initial patient presentation with a brief medical history. The student assesses this data and is allowed to choose diagnostic tests that are relevant to the patient’s condition. After choosing the diagnostic test, the results of the test are presented and the student is challenged to determine if the tests are within normal range or outside of normal and to decide how the results apply to the initial patient presentation. The next phase allows the student to choose how to manage the patient’s condition. Once this final decision is made, the application “grades” the student’s performance. The student’s choices are revealed as correct or incorrect. The final phase of the application offers a “diagnosis and reasoning” statement that walks the student through the case study from start to finish. A logical presentation is provided, indicating the key findings from the initial presentation through the management phase of care delivery, including what is significant in the accumulation of data and why. This instructor found that the application beautifully reinforces the significance of critical thinking and better prepares the students for their clinical experience.

When using the iPad in the classroom during spring semester, the students were divided into small groups. As each group completed a case study, they presented their findings and rationales to the class which lead to further discussion and input on the process of patient management. This instructor found that the iPad use is a great tool to break the monotony of classroom lecture and teaches the students to work in small groups, much like the work of a typical healthcare team. The response observed by this instructor has been very favorable, particularly for those who are more visual or kinesthetic in the learning process.

Medical Assisting (MA)

The iPad has been used by this instructor (Owens) in various ways to augment student learning and improve their retention of material. At the beginning of the spring semester, the MediRate application was incorporated into the vital signs component of the skills area. This application allows students to practice assessment of pulse and respirations. Later, skills demonstration videos were loaded onto the iPad. The students were able to move from station to station in the skills lab with the iPad and use the guidance of the videos as they practiced on the manikins. Finally, practice tests and other resources were available to students for review. The iPad was available to them when they had extra time in class for content review or research. The class had an instructor-to-student ratio of 1:15. This instructor found that the iPad provides guidance to students and allows them to work more independently. The iPad encourages students to work through problems rather than waiting on the instructor to be available to answer questions.

This instructor observed younger students as being more comfortable with use of the iPad initially and more eager to utilize the technology than older students. In response to this observation, those students were paired with those who were more hesitant to use the technology. The arrangement worked well, and by the end of the semester all students had used the iPad in some manner. Some students researched the application store and recommended applications to this instructor.

Registered Nurse (RN)

Use of the iPad in the RN program focused on the clinical setting. The iPad was used in the final semester of the program by RN students working on an adult and pediatric unit. Several free medical and healthcare delivery applications were downloaded to the iPad prior to the beginning of the semester. One application that was found by this instructor (Bramlett) to be helpful to the RN students focuses on pediatric case studies. The user is given a case study of a pediatric patient and is asked to prioritize care of the patient and determine sequencing of events related to the care of the patient. At the end of the case study, an acceptable sequencing of events related to care of the patient is provided. This component of the application provided the student with immediate feedback on their case study responses.

A second application found to be helpful to RN students provides detailed descriptions of medications. The students were able to identify medications within the application that were scheduled to be give and learn more about those medications. The specific class, action, dosage
recommendations, side effects, precautions, and nursing implications are listed in the application. This instructor found the students used the iPad frequently to access information readily that was directly related to the delivery of patient care. This instructor also found the younger students to be more eager to use the iPad in the clinical setting as opposed to the older students.

Summary

The three instructors used iPad technology in the clinical and classroom settings. All instructors found, upon comparison, that similar free healthcare delivery applications were being used in the different programs within the School of Health Professions. In addition, students across all ages and levels of training could utilize the applications. All instructors participating in the use of the iPad during the semester found that use of the technology enhanced student learning and would be a valuable teaching tool in the classroom and educational clinical setting. The use of technology is not the future of healthcare; it is the now of healthcare. The challenge for educators is assisting future healthcare providers in learning the use and benefits of information technology in order to assist them in becoming the healthcare leaders of tomorrow. ◊

References

Using a Flipped Classroom Strategy to Enhance Students’ Performance in Mathematics through Innovative Technologies

Minsu Kim
University of North Georgia

Abstract
Mathematics instructors have improved their learning environment both inside and outside the classroom using technology. For example, instructors post their lecture notes and supplementary materials on their class websites. In addition, researchers have raised their concerns for applications of podcasting regarding recording lectures afterward instead of providing upcoming core-lecture content. The purpose of this research project was to enhance students’ performance through five-minute preview video lectures using Camtasia Studio and podcasting as a flipped classroom strategy. This study, conducted in the summer semester of 2012 in a pre-calculus course at University of North Georgia. This project was evaluated by three different data sources: student evaluations, mathematical achievements measured by a final exam, and percentage of students who dropped the course. The flipped strategy, characterized by the preview video lectures, will allow instructors to do a variety of activities, such as a combination of interactive lectures and group work in class. In addition, the research project will contribute to improving students’ engagement and readiness for their next class.

Keywords: Preview video lectures, podcasts, Camtasia Studio, Smart Board, and mobile technologies

Author Information
Minsu Kim received his Ph.D. in Mathematics with an emphasis on Research in Undergraduate Mathematics Education from the University of Oklahoma. He is currently an assistant professor in the Mathematics Department at the University of North Georgia, Gainesville. His research interests include teaching and learning methods through mobile technologies in Undergraduate Mathematics Education (UME), differentiated pedagogy in UME, students self-efficacy and beliefs about mathematics and learning in UME, and international students in learning and teaching in UME. He can be reached at Minsu.kim@ung.edu.

Mathematics instructors at colleges or universities have improved the learning environment both inside and outside the classroom for students using technology. For example, instructors provide material online and post their lecture notes on eLearning or Desire to Learning (D2L), which are learning management platforms, in order to provide opportunities for students to learn the material outside of the classroom. Even though instructors post their lecture notes on eLearning or D2L, a number of students attend class with copies of the lecture notes instead of reading the material before their classes.

Recently, students have become familiar with and use new technology, such as smart phones, iPhones, and iPads. Students are able to access the Internet everywhere because of technology. In addition, several studies have shown that streaming video significantly influences students’ achievements in higher education (Carlson, 2009; Mark, 2004; McGrann, 2005; Reed, 2003). The purpose of this research project was to enhance students’ performance through five-minutes preview video lectures using Camtasia Studio (screen video capture software published by TechSmith), Smart Board, and podcasting as a flipped classroom strategy. This study was conducted in a summer semester in a pre-calculus course at University of North Georgia. The preview video lectures briefly introduce the objectives,
definitions, theorems, and examples of class lectures around five minutes in length posted the lectures on D2L or the University System of Georgia (USG) podcasting server. Math instructors can add important information to the preview video lectures, for example information about announcements, tests and quizzes in order to encourage students to access the preview lectures. Before attending class, students can access the preview lectures 24/7 using diverse multimedia frameworks, such as Adobe Flash, Windows Media, Quicktime, DVD-ready AVI, iPod, iPhone, iPad, RealMedia MP3, WEB, blog, and animated GIF formats.

This project was evaluated by three different data sources: student evaluations, mathematical achievements measured by a final exam, and percentage of students who dropped the course. Twenty-five students enrolled the pre-calculus class in the summer semester of 2012 at University of North Georgia, Gainesville. Eleven students (44%) were male and fourteen (56%) students were female. According to D2L and students’ comments on the student evaluations, 68% of the students watched all the preview video lectures before the next class and 72% of the students believed that the preview lectures helped them to understand or to learn the materials and improved their readiness for their next class.

There were strengths noted from the students’ comments about the preview video lectures:

- “Better prepared for class and the material”
- “The next class was less overwhelming because of preview lectures.”
- “The preview lectures prepared me for the material covered in class.”
- “The preview lectures help me understand what is going to be in class.”

In addition, here were weaknesses noted from the students’ comments:

- “The preview lectures should come with more practice problems.”
- “Sometimes I could not hear very well”
- “Not posted early enough sometimes though that’s understandable, given the short time we have in the class.”

For mathematics achievements, 92% of the students received over 70 points out of 100 on the final exam (see Figure 1). Moreover, only one student dropped the class at the beginning of the semester.

There were some limitations regarding the number of students and the Summer semester. Because this study was conducted during the Summer semester, I expect that the results of the mathematics achievements and the rate of drop would be different from spring and fall semesters. Even though the preview video lectures did not significantly influence the students’ mathematics achievements, the preview lectures definitely improved students’ readiness for the next class and helped them understand and learn the materials in class. In addition, the preview video lectures allow instructors to do diverse class activities, such as a combination of interactive lectures, group work, and problem solving in class.

References


Introduction

Are you looking for ways to increase your teaching edge? You may find the right tools amongst emerging technologies, such as some free iPad applications for educators. In our ever-changing educational environment, it is increasingly difficult to ignore current technological trends reshaping the way students access and educators deliver content. Students are adopting mobile technologies to access the “cloud” for information, networking, and task completion. Educators are also adopting mobile technologies to increase their teaching edge. Trends that apply mobile technologies in the classroom are not new. A quick review of the literature reveals that some instructors in higher education are assessing emerging mobile learning technologies for improving teaching effectiveness.

The Chronicle of Higher Education (2011) reports early adopters of first generation iPads have evaluated the iPad as a productivity tool. Another more recent article in the Chronicle (2012) compares two screencasting applications for the iPad that allow the creation of learning materials for a variety of class formats. Cochran, Narayan, and Oldfield (2013) include the iPad in their discussion of productivity tools to show the potential to integrate iPads in a variety of educational contexts. In their discussion on M-Learning, or mobile learning, with the iPad, Melhuish and Falloon (2010) argue that mobile devices offer individualized and personalized experiences and that the iPad’s access to educational applications offers potential and opportunities for content delivery improvements. As a recipient of an iPad(1), I had the opportunity to examine the teaching edge potential of the third generation iPad Wi-Fi and to test it in my Environment of Business courses during the spring 2013 semester. The purpose of this analysis is to explore innovative approaches that increase...
efficiency, flexibility, and personalization in the classroom using an iPad and two free iPad applications.

**Time is Money**

The impact of using mobile technologies to increase efficiency in the college classroom originates primarily from saving the time instructors spend accessing the cloud to use online teaching resources. A typical classroom at Dalton State has a desktop computer connected to a projector. It takes a little over three minutes to start the computer, to log into the network, to load a browser, to launch web-based eLearning applications(2), and finally to have an online learning environment up and running. One of the main concerns of this current practice is the time spent in bringing up an online environment. An iPad that has been previously loaded with the online environment could eliminate most of this setup time.

The key factor that helps pre-loading an online environment into an iPad is the availability of Wi-Fi access across campus. Since instructors may connect the iPad directly to the projector bypassing(3) the desktop computer station, the setup time is reduced to about 30 seconds, which is about the time it takes for the projector to become operational. More time savings may come from loading a presentation in PDF format, navigating a presentation through a touch screen, and resizing a presentation slide with the touch screen. In practice, the time saving could be as much as five instructor hours per semester(4). For instructors, the iPad turns into a productivity tool that increases efficiency in the classroom by saving, sometimes unnecessary setup time when using online environments.

**Bring a Personalized Cloud to Your Palm**

While desktop computer stations can help instructors bring an online environment to the classroom, mobile technologies offer more personalization and independence than desktop computer stations do. Because desktop stations are shared and affixed to a single location, individual personalization is limited to what an instructor can do at that station and to how long the station will keep individual changes. A main concern of this current practice is the limited flexibility desktop stations offer to accommodate multiple teaching styles and faculty that depend on online environments. A personal mobile device offers instructors the option to personalize and adjust the online environment with the applications that support individual teaching styles without the limitations of time and place, which are the limitations generally associated with desktop computer stations.

The iPad allows instructors to personalize their online environment on-the-go up until the last minute with the latest information, to transfer these updates into the customized online environments, and to bring the customized online environment to the classroom. One of the personalization tools for cloud storage services that I use in class is Dropbox(5). It allows users to access files stored in the cloud from an iPad, an office computer, a home office computer, or a laptop. The Dropbox application for iPads allows instructors easy and quick access to files stored in the cloud. Since its launch in September of 2008, Dropbox has experienced rapid growth and currently has more than 100 million users worldwide (Dropbox, Inc., 2013). Considering these exponential growth numbers, it is becoming increasingly difficult to ignore this current technological trend toward cloud storage and its potential applications in content delivery. For instructors, an iPad with a Dropbox application becomes a tool for increasing efficiency by allowing instant access to instructional resources in and out of a classroom and a tool for adding flexibility and personalization by using iPad’s mobility feature.

**Could You Repeat that Please?**

Depending on the material covered in class, at times it becomes necessary for instructors to provide students with handouts in an attempt to explain a technique for solving a complex problem, to describe a method for arriving to a formula, or to clarify a piece of knowledge in more detail. Students often have to choose between paying attention to a lecture and taking lecture notes. Students who choose to pay attention to a lecture
might ask classmates for class notes or even take pictures of the board with their smartphones. The main concern with this current practice is the time students lose when taking notes while paying attention to a lecture. Another factor that aggravates this situation is that often reluctant students will not ask the instructor to repeat a portion of the lecture. If instructors can identify specific lessons that may require further repetition, they can record those lessons and make them available online to students for further review.

Although there are many ways to record pieces of lecture or complete lectures, current mobile applications allow users to create an interactive lesson during lecture time or out of the classroom. An iPad application that helps instructors create their own lessons and make them available in the cloud, Educreations(6) is another example of a personalization tool for creating a customized online environment. Once the iPad is connected to the projector, this application lets an instructor use the iPad as an interactive whiteboard. This free iPad application (Educreations, Inc., 2013) also offers the possibility of class personalization by allowing instructors to increase direct eye contact with the class while using the interactive whiteboard compared to the limited eye contact when using a traditional whiteboard. By allowing students to go online to examine selected lessons multiple times, an increase in efficiency would come from saving time from repeating a piece of lecture during class time while adding flexibility to when students would select to review the material.

Conclusion
The innovative approaches proposed in this analysis are the adoption of some emerging tools that increase teaching edge. iPad and its applications have the potential to improve instructors’ teaching edge by increasing efficiency, adding flexibility, and allowing personalization to instructional styles that depend on online environments. iPad applications such as Dropbox and Educreations are just two examples of current emerging technological tools. Although, this exploratory evaluation focused only on the potential and the opportunities offered by these two free iPad applications, using an iPad allowed me to increase
my response times (efficiency), to increase my on-the-go options (flexibility), and to increase my teaching methods options (personalization). Future evaluations could include similar but fee-based iPad applications or other applications with the potential to improve teaching effectiveness. This exploratory evaluation also had unintended side effects: after using the iPad in my classes regularly, I noted that some students started to bring their iPads to the classroom and at least one started using Dropbox.

Future evaluations could also expand and assess students’ perceptions on instructors’ adoption of emerging technologies. Any future evaluation should not focus on the use of the iPad. Instead, researchers or instructors should investigate how the available tools that mobile learning offers can have an impact in teaching effectiveness or student learning outcomes, and recommend the adoption of innovative practices that improve teaching and learning.

Endnotes

1. Based on the iPad proposal, “How will I use an iPad to better serve students,” submitted to Dalton State College.

2. Examples include GeorgiaVIEW D2L, cloud storage services, and interactive whiteboard.

3. A dock connector-to-VGA adapter for iPad is required to directly connect the iPad to a projector.

4. Estimation considers twenty five lecture sessions per semester and a four-course teaching load.

5. Dropbox is a cloud storage and synchorization service operated by San Francisco-based Dropbox, Inc. https://www.dropbox.com/


References


Many forms of community engagement are practiced in higher education today, but in this paper I examine courses which include a requirement that students participate in service activity beyond the classroom in support of an agency or institution in the community. Further, the role of students requires them to make decisions in concert with staff members of the agency in which their service is performed. The services they perform link with knowledge and skills related to the content of the course. Some universities designate particular courses in a major to have a service learning component, but most do not. When choosing to structure a course to include service learning, I make sure to advertise that fact at the outset, as students need to know when a course requires service learning. Today many students have family and employment obligations that impact their availability to carry out service learning obligations, and for the course to be effective, nearly all students need to be involved in the service.

For this paper, I will use an example from my Sociology of Corrections course, where students tutored ex-offenders at a community reintegration program for ex-offenders. The students toured two correctional institutions and then were assigned to tutor men and women in academic subjects and a life skills course that instructed on topics such as budget planning, meeting the needs of employers, and family relationship-building. Depending on the course chosen to include service learning, the number of agencies in most communities is nearly limitless; academic knowledge and student skills from any field of study could be applied to benefit both students and agencies. The challenging part is locating an agency administrator who is willing to partner with faculty to develop a mutually beneficial plan and sustain it over time.
Service learning, carefully designed and monitored, engages students in addressing community problems in much greater depth than classroom study alone can provide (McDonald and Dominguez, 2005; Bauer-Dantoin, 2008). One example from the literature is a class which placed computer majors in an agency serving adults with intellectual disabilities, where students taught a curriculum of computer skills to clients. Maryann Whitaker and Dan Albertson (2011) collected data over eighteen months to measure the effectiveness of the project, finding that clients learned computer skills in their curriculum, while student attitudes toward persons with intellectual disabilities changed positively to a significant extent. Students learned to interact with clients with diverse backgrounds. They witnessed the challenges faced by the agency and the clients. Students can also become better critical thinkers as they take on challenges of solving problems in settings which are under-staffed, or where practices in an agency do not address important needs of their clients, or where evaluation research is needed but unavailable.

Agencies can gain major value added by student engagement in service learning projects by adding services and freeing staff from routine duties. Sometimes more clients can be served, or the quality of service is enhanced by student efforts added to the agency. At the same time, students report feeling proud of the work they do and seeing their work help people. The realization that their academic knowledge and skills translate into benefits to the community (Simons and Cleary, 2005) helps reinforce the value of education generally and helps some to develop career choices. If the work does not fit their career interests, at least they gained that understanding early. If the project does fit their interests, they can develop a firmer career path. In my experience, it is common for college seniors to lack a clear career interest, which leaves them floundering, without direction, near the date of graduation. Service learning can help reduce this problem, particularly if college majors are purposely structured to include service learning or require an internship experience. Some of my most gratifying experiences as a faculty member have been assisting students in career planning and seeing them take positions of responsibility with strong career opportunities.

Today, graduates must be able to work with diverse populations in settings where complex situations occur on a daily basis. For example, nursing, education, and social work graduates need numerous opportunities to interact with the publics they will serve with delicate legal, social and ethical challenges. Aside from specific final clinical courses, it is possible in service learning courses to provide opportunities to use their knowledge and skills before the senior year of school when departments often offer internships to departmental majors. One example of a learning opportunity available much earlier in the students’ educational journeys is described by Katherine Riedford (2011). In a community mental health class, students applied national goals from the Exploration of Healthy People 2010 federal initiative to help counsel mental health patients. They conducted a literature review and then developed initiatives to improve services at several programs for mental health patients. Students negotiated with staff regarding what services they would provide and then carried out those plans. Students kept reflection journals of their clinical experiences and were graded on the effectiveness of carrying out the plans. Riedford concluded that students broadened their understanding of community needs as well as their clinical skills.

Teacher education also challenges students to develop cultural competencies to work with diverse populations most have not encountered previously. Professor Peter Murell, Jr., tested a project where education majors were teamed with beginning public school teachers so that students could observe and learn classroom management skills from beginning teachers. Each team was backed by experienced field consultants who helped both students and beginning teachers manage issues in the classroom (2006). Outcomes of this research showed that both students and beginning teachers gained greater mastery of teaching skills.

As part of the recovery effort following Hurricane Katrina, Tulane University in New Orleans initiated a policy that all undergraduate students are required to participate in public service as a graduation requirement. Some might hypothesize that students would avoid Tulane, as
most universities have no such requirement. Instead, research by Moeloy and Illustre (2011) found the opposite to be true. In a survey of several cohorts of incoming freshmen, they discovered that the new requirement was cited as a reason many chose to come to Tulane. It is possible that educators underestimate the current level of interest in public service held by this generation of college students. Although citizenship education is not often stressed in academic discourse, perhaps this conversation should be held. In a democracy, where young people eventually become leaders, it can be argued that college students need to become aware of important issues facing the nation. Service learning allows them to confront unmet needs in their communities, such as differential access to quality healthcare, education, and housing. As they perform service projects they have an opportunity to think critically about ways to improve institutional systems in our communities and allow them to see the complexities of decision-making in agencies.

The research of Angela Bauer-Dantoin (2012) also found favorable student support for service learning in a course on the Biology of Women. She chose two sites for student engagement on women’s health issues, such as lay midwifery and public health education about breast and cervical cancer. At the close of the semester, a survey of students found that several were considering careers in healthcare fields and nearly all believed they learned more in the course as a result of the service experience.

If Americans value fair play, democratic process, and social justice, a return to emphasis on citizen responsibility may be worth advancing among today’s college population. Ira Harkavy (2006) researched citizenship education as a component of college work. He argued that consumerist culture rewards ethnocentrism and commodification of social relationships. The value of social responsibility toward others is not reinforced for young people in their everyday lives, Harkavy argues; by partnering with community institutions and agencies, universities are capable of contributing to social activism in pursuit of what John Dewey referred to as “the good society.”

One example from the literature comes from the work of Desiree Stepteau-Watson (2012), a social work professor whose students took on the problem of the need for greater public awareness of sexual violence and the under-funding of the local rape crisis center. As a group, the students addressed both issues by organizing and carrying out an educational campaign in the community, replete with flyers they prepared and distributed and a march funded by sponsors students solicited. They also conducted presentations at civic groups and churches in the community. The money they raised was donated to the rape crisis center. After their projects, the class debriefed and critiqued their activities and discussed how social work theories related to their project. Stepteau-Watson found that the project raised student commitment to the values and ethics of the social work profession.

Another way to study service learning is to view these experiences as part of the role of engaged metropolitan universities to promote better quality of life and better services within the community. From this perspective, David Deggs and Michael Miller (2011) proposed a model of community change in which new ideas presented through course learning, campus activities such as seminars and speakers coming to campus, and sharing with the public can generate dialogue around new ideas which change public understandings and decisions (2011). They emphasize that our colleges contain new approaches for addressing problems in our communities, and those ideas can spread through the community in networks of personal relationships, which in turn can change organizations and opinions in the community. New knowledge and skills originating on campus can lead to real community changes.

One example has been public thinking about the value of community gardening which can provide healthy vegetables for urban residents and increase demand for fresh vegetables. Many communities now have community gardens and co-operative stores. Student involvement in service learning at the grassroots level, Deggs and Miller point out, helps nurture student awareness of social responsibility and the value of good citizenship. The presence of students conducting
service learning provides an avenue for influencing policies and practices of the agencies, as students and their faculty bring newer knowledge into the agency. In this way, agencies learn from the students, and students learn from the agency. The dynamic interaction can change attitudes and practices of agency staff as well as students, potentially helping to change the community in beneficial ways.

Structuring Successful Service Learning Projects

Preparing a course with a service learning component is not an easy matter. It requires considerable time and negotiation to establish effective partnerships with a community agency. Considerable time is necessary to nurture the relationship, so the agency sees faculty as being committed, readily available, and understanding of the agency’s mission and limitations. The partner needs to feel safe about opening the agency to view by students, who at first are all viewed as outsiders. Once the project is underway, faculty must be willing to supervise students and help them resolve challenges in carrying out assignments. Here, several principles that I have found useful in planning service learning projects are examined.

The first step is to select a course where service learning could add significant value for students, but where enrollments will be manageable given the time required. The goal needs to be a win for the agency partner and a win for each student. Course selection is very important, as students must have some background in the subject field to offer meaningful service. If the course is at a sophomore or junior level, it can be an extremely valuable experience for them. My Sociology of Corrections course proved ideal, because with a limit of 30 students, and my previous contacts with agencies, I was able to make a preliminary plan that could engage 35 students over the semester and where time scheduling could be flexible enough to meet the needs of most students.

Once a course is selected, the community partner should be sought. First, consider organizations with which you are familiar or where you know an administrator already in your social network, or where the agency mission relates in part with the course topic. Not all agencies are structured well enough to structure a meaningful experience for students. Some well-meaning organizations lack infrastructure sufficient to provide valuable experiences for students, due to lack of staff or adequate space. It is important to investigate the agency being considered. Besides asking persons who may know the agency, online research and a telephone call to inquire about whether it has volunteer opportunities can be helpful. In one instance, I found that a church-affiliated program barred gay or lesbian volunteers. When I brought this to their attention, they denied using the policy and bragged that they had one gay volunteer whom they all liked, but despite their church having a nondiscrimination policy, the Board of Directors maintained their policy about gay and lesbian volunteers, so I did not pursue that partnership.

In the case I am describing in this paper, after research and telephone calls, I met with staff at an agency serving ex-offenders; we discussed their time and space limitations and ways the students could best assist clients. Once a suitable partner is found, negotiate with its leadership, bringing in suggested ways you think students could contribute to the agency. Web research helps, because information on the website is essential to know, such as the agency’s times of operation, services offered, and level of staffing. In the meeting with administrators, the plan should be negotiated to take into account what roles students could play and times when students could perform activities at the site. Take into account the number of students in the class and how they can be accommodated at the agency.

Also, it is important to consider whether background checks are required, and if so, try to have the agency pay those costs or ask whether law enforcement might conduct the background checks. Ask how long the background checks will take to be sure students will be able to begin their assignments quickly. If a student is not approved due to a background check, or some unusual student constraint is noted, consider a contingency plan for that student, such as having them conduct a literature search in support of the project or assist with scheduling or evaluating outcomes of
the project. The project where students tutored ex-offenders did not require background checks, but programs where youth or vulnerable populations are served do require background checks, so this is another reason that faculty need to pre-plan courses months before the course begins, to account for a strong project.

Once the project has been designed with the administration of the agency, prepare a Memorandum of Agreement to be reviewed and signed so that each partner knows what is expected, what services students will perform, and how conflicts or other problems will be resolved. This document is often only one or two pages in length, but it forms a basis for the relationship that prevents potential conflicts. I found the agency pleased to have this document. In one section, I described the outline of training I would give to students to orient them to the agency, and the director agreed to come to class to help familiarize students with their mission and client base.

The level of success of the project is greatly influenced by the quality of communication between faculty and the community partner. This issue was researched by Professor Mathew Lawson, who assigns research methods students to community sites (2003). He emphasized the importance of building and sustaining rapport with organizational partners and monitoring student work. Good communication establishes clear understandings and training of students about their interaction with staff at the site. Faculty need to be readily accessible to the agency to resolve any problems that may arise at the site. When positive relationships with staff are maintained, the likelihood of win-win outcomes for students and the community partner are increased. I went to the site once or twice every week at varied times and joined with students in tutoring.

Support for students involved in service learning projects takes at least three forms: clear measurement of individual performance, training for participation in the community agency, and individual coaching of students. I find that the importance of written instructions for students cannot be over-stated. Items that need to be described include how individual performance will be graded, the number of hours of service required, how emergencies or illnesses will be managed, objectives of the project, and clear directions for the requirements. These requirements should be repeated in class several times to be sure students understand the expectations. To assign grades for participation in service learning, a number of artifacts have been used. The literature shows that grading has involved the use of student logs, reflection papers, literature reviews, term papers, evaluation surveys by the agency, and class presentations (Whitaker and Albertson, 2011; Webb and Burgin, 2009; Stepteau-Watson, 2012; Molee, Henry, Sessa, and McKinney, 2010). Authors stress that whatever point value is assigned to the project should be commensurate with the time and effort required of the students. For my tutoring project with ex-offenders, I used a combination of student logs, class presentations, and a brief library research assignment on reintegration of ex-offenders. This was combined with a requirement that each student attend one of two prison tours associated with the course. Together, the service learning component was worth 25% of the course.

Prior to beginning the project, students need training about expectations, lines of authority in the agency, scheduling, and other details. A guided tour of the site helps students meet the staff and learn more about the facility. Professors Kimberly Maich and Carmen Hall stress the importance of orienting students and guiding them throughout the project (2011). It is important for faculty to consider the extra time that will be needed for site visits and meeting with individual students during the project (Silcox, 1993; McDonald and Dominguez, 2005; Blouin and Perry, 2009). To plan the training for students, become familiar with agency rules and procedures, so that essential knowledge is shared with students during orientation. Discuss the proposed training topics with an agency administrator so they may have input. Good training of the students helps make their work more fun and reduces friction between staff and students.

It is suggested that faculty build in a component for outcome evaluation of the project, based on surveys or interviews of agency staff, possibly clients, and students, ideally to be conducted by a neutral third party to reduce bias. We need to learn
what is effective and ineffective in conducting community projects, and unless rigorous evaluations are conducted, we cannot know. While a strong body of evidence is shown in support of service learning, much more is needed, especially as academic departments orient toward applied studies at the undergraduate level, partly in an effort to help students find viable careers in a difficult economic environment. We need to add to our knowledge of how best to structure learning experiences, and allow students to engage in activities that make a difference to the community. Many projects include opinion surveys before the project begins and after conclusion of the project. This can be useful for measuring changes of student beliefs about diverse populations in the community. In my tutoring project with ex-offenders, I wanted to know attitudes of students about ex-offenders before they began the project and afterward. I wanted to know whether they handled their time and service obligations responsibly, and how much or whether their clients felt they benefitted from the tutoring. I had students complete anonymous open-ended surveys about attitudes toward criminals and ex-convicts in class, without placing their names on the surveys. After the project they completed the survey anonymously again.

I found dramatic differences in a positive direction comparing the after-surveys, especially with regard to the idea of dangerousness of criminals and ideas about the beliefs and attitudes of ex-offenders. I read journals kept about each tutoring session and their observations at the site. These journals reflected growth in comfort as students built rapport with some of the clients they tutored. It was clear that the students learned about the backgrounds and challenges faced by clients as they re-adjusted to community life. In retrospect, I wish I had done more evaluation of the agency to learn whether tutoring correlated to acquisition of the GED diploma, as this was the goal of many clients at the agency. Clients completed an opinion survey about the level of help they thought they received from tutoring. Those were nearly unanimous with praise for the project. Clients seemed most impressed that college students wanted to help them.

Given all the responsibility that service learning requires of faculty, the literature suggests that students benefit substantively from these experiences. In support of service learning, Australians Toni Webb and Shelly Burgin argue that today students are caught in a “culture of apathy” whereby they lack a sense of empowerment and seem not to realize that they have the ability to confront real issues in the world and help find solutions (2009). They conclude that active learning experiences are important for breaking the apathy but describe how difficult it is to design and manage students engaged in service learning. Perhaps faculty engaged in service learning should be considered as pioneers, in that though a growing literature supports the value of service learning in courses, administrators have not created the supportive infrastructure for faculty engaged in service learning. Some of these issues are addressed in the next section.

Need For Administrative Support of Service Learning Coursework

Maich and Hall (2011) discuss the need for colleges to create and sustain cultures which support applied research so that faculty efforts at service learning are facilitated. There is a need to examine faculty workload, curriculum design with service learning, and other considerations, if service learning is to be sustained or encouraged. The University of Tennessee at Chattanooga, for example, is classified as a metropolitan-engaged university in the heart of the city, with dozens of partnerships operating at any one time, yet there is no university-wide support mechanism for service learning projects. When faculty design and conduct service learning, they do so on their own, taking all the risks, time, and effort without course load adjustment, support services, recognition, or remuneration for mileage, unless they are able to arrange some support within their department. In such an environment, service learning is unlikely to grow.

Not all academics or administrators support service learning. Some criticize the research as not sufficiently rigorous or too inductive (Jacoby, 2003). Since most faculty and administrators have not personally engaged in service learning and
some of the benefits to students are not readily measurable, it is difficult to change policies and attitudes. Yet most universities do encourage student internships. If administrators value internships in the community, it then becomes unclear why there is so little cultural support for student engagement as part of courses throughout the undergraduate experience. One approach to this situation would be for professional organizations or academic unions to take on the issue of service learning and make recommendations to academia. Another strategy would be for academics interested in this pedagogy to learn from departments that have traditionally engaged in service learning as part of the curriculum, such as departments of physical therapy, nursing, and social work. These departments do have special concessions from university administration and policies in place in support of clinical practice in the community. Faculty in other fields, from science to music, might learn from other fields of study and request or demand concessions that support service learning. As undergraduate students face an uncertain job market, service learning and applied studies become worthwhile for universities to consider as means to help students develop career plans or even find potential job placements.

Conclusion

There is a growing literature attesting to the value of student engagement in service learning and ways to structure effective projects with community agencies. Partnerships in every community are available in countless agencies and institutional settings. When a course is planned with an active community engagement component, students provide services related to their curriculum in support of the partnering agency’s mission. They can gain self-confidence and learn lessons about community realities unavailable to them in a classroom setting. Student involvement has been shown to add value to partnering organizations, but it also helps students learn to interact with diverse populations and apply classroom learning to real-life challenges faced by communities.

There is evidence from Tulane University and a study by the American Sociological Association that students of this generation value service to community and consider service learning very meaningful and a source of pride. A growing literature indicates that while there are many educational benefits for students, planning such courses requires considerable effort on the part of faculty. One great challenge is to find suitable agency partners and build relationships which benefit both partners. A Memorandum of Understanding document should describe role expectations as well as which activities students will perform. Students must be prepared for the service learning experience and be fully aware of grading policies of the course. During the project, guidance and support must be provided to students from the faculty member.

Among the benefits students have derived from service learning are self-confidence, skills in time management, and critical thinking as they plan and execute activities at their site (Maich and Hall, 2011). They may gain greater sensitivity and skill in working with diverse populations and develop other skills (Webb and Burgin, 2009). They learn about challenges all communities face. At the macro level, service learning represents the way universities add value to the community, and for individuals, service learning opens doors to possible careers for students.

Much more can be done to expand and sustain service learning in the academy. Presently most faculty design and conduct projects entirely on their own, with little or no university support. Although student internships are accepted widely in academia, skepticism and lack of awareness have resulted in little cultural support for service learning courses in most fields of study. There are possibilities for advancing service learning pedagogy. Professional organizations, academic unions, and faculty senates could move this pedagogy into the mainstream through study and promotion. In an age when students face a difficult job market, service learning can be a very valuable experience for students by helping them apply their knowledge, develop values of public service, and explore career options related to their fields of study.
References


Journal Submission Guidelines and Editorial Policies

1. Faculty members (and professional staff) may submit the following:
   - Book reviews on scholarly works on higher education administration or issues, college teaching, or adult learning published within the last two calendar years.
   - Scholarship of Teaching and Learning research. This is defined as a study in which an activity, strategy, approach, or method that reflects best practices or evidence-based research is tried in the classroom. The faculty member sets up an intervention, executes it, and assesses the impact, employing quantitative or qualitative methods. Articles should indicate that IRB process was followed where applicable, with documentation.
   - Literature review that synthesizes, in a relevant and interesting way, the evidence, theory, and/or research on a particular aspect of higher education, college teaching, adult learning, brain research, etc. Professional staff could write about issues in student services or advising, for example.
   - Essay of personal reflection of a classroom incident or phenomenon with an evidence- or theory-based approach to interpreting the incident or phenomenon.

2. Style Sheet
   - Submissions should be in APA VI format; Times New Roman 12 pt. font. Use APA guidelines in terms of margins. The writer should try to preserve his or her anonymity as much as possible. Obviously, the discipline will narrow down the writer's identity in many cases. The editor will redact the name of the writer from the document's title page before sending to reviewers.

3. Review Process
   - The submissions will be peer reviewed by three faculty members, whose identity will be known only to the editor and not to each other. One member of the review committee will be a faculty member in the general discipline represented in the article, one will be a faculty member with an advanced degree in education, and one will be drawn from the advisory committee or other volunteer reviewers.
   - Articles will be returned to the writers in a timely manner with an indication of rejection; conditional acceptance (revise and re-submit, with suggestions for doing so), and accepted (possibly with request to edit or make minor changes). A rubric will be used for assessing the articles. It will be available to potential submitters upon request. If none of the members approves the article, it will be rejected. If one of the members approves the article, it will be considered a conditional acceptance. If two approve it, it will be returned for the necessary editions and published when finished. If three approve it, it will be published as is or with minor corrections.

4. Submissions should be sent as Microsoft Word files to btucker@daltonstate.edu

5. Published articles will appear in the Journal for Academic Excellence, which will be available on the Center for Academic Excellence's website and thus accessible by Internet searches.