

CENTER FOR
ACADEMIC INNOVATION
SAGINAW VALLEY STATE UNIVERSITY

TEACHING SYMPOSIUM

February 18, 2015



INNOVATE

COLLABORATE

CONNECT

THE CENTER FOR ACADEMIC INNOVATION

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Welcome to the Center for Academic Innovation's (CAI) inaugural Teaching Symposium. The Center's mission is to support the campus community in enhancing and creating innovative practices that advance pedagogical excellence and support the University's commitment to teaching. We hope this Symposium will provide you with a platform for discussions on teaching and learning issues and inspire you to try new pedagogies. We plan to do this in two ways. The first is a keynote presentation by the distinguished professor from the University of Michigan, Dr. Brian P. Coppola. In his presentation, he will share his experience and expertise of using different instructional approaches to transform student learning. Second, several SVSU faculty will showcase the creative work they are currently implementing in their classes. Following this symposium, the CAI team looks forward to continuing the conversations and collaborating on creating engaging learning experiences using promising pedagogical practices.

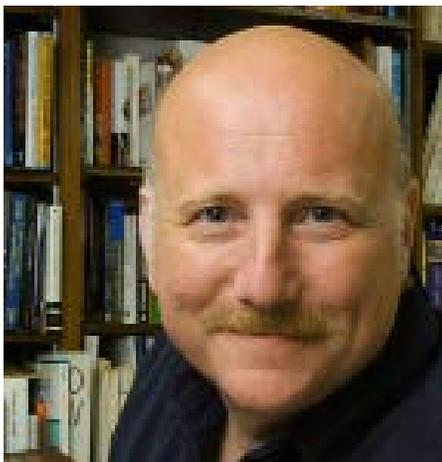
CAI Team

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KEYNOTE SPEAKER



Brian P. Coppola
University of Michigan
Arthur F. Thernau Professor

Associate Chair of Educational
Development and Practice

Professor of Chemistry

Dr. Brian P. Coppola is an internationally known teacher and scholar, who combines an impressive academic record with a strong reputation for the impact he has had on undergraduate education. He is the Arthur F. Thurnau Professor of Chemistry at the University of Michigan, serves as the department's Associate Chair for Educational Development and Practice, and the Associate Director for the University of Michigan-Peking University Joint Institute, in Beijing, China. As the Associate Chair for Educational Development and Practice, he is primarily responsible for directing the future faculty program, in which undergraduate students, graduate students, and post-doctoral associates work with faculty members on teaching and learning projects within the department's curriculum.

As a faculty member in the Department of Chemistry, he has divided his work between a number of areas: 1) exemplifying discipline-centered teaching and learning in the design, implementation, documentation, and evaluation in organic chemistry education; 2) as a mechanism for preparing future faculty, broadening the concept of a "research group" to the idea of forming "teaching groups," and 3) the internationalization and globalization of science education.

Dr. Brian Coppola has received numerous awards for his teaching innovations and accomplishments. He is the winner of Robert Foster Cherry Award for Great Teaching (2012), Provost's Teaching Innovation Prize (2009), the CASE/Carnegie U.S. Professor of the Year Award (2009), Golden Apple Award (1994) and many other awards. Dr. Coppola is a member of the editorial boards of *The Chemical Educator*, *The International Journal of Science Education*, *the Journal of Science Education and Technology*, and *the Journal of Chemical Education*. He is an Associate Editor for *The Journal for Research in Science Teaching*, and he is the editor in chief of *The Hexagon*, the quarterly publication of Alpha Chi Sigma, the professional chemistry fraternity.

KEYNOTE LUNCHEON

11:30 - 1:15 P.M.

Banquet Room A

SHOWCASE I

1:30 - 2:40 P.M.

Seminar E - **Rosina Hassoun & Marlena Bravender**

Seminar F- **Chris Nakamura**

Seminar G- **Kim Lacey & James Bowers**

SHOWCASE II

2:50 - 4:00 P.M.

Seminar E - **B.A.T. Team**

Seminar F- **Elson Boles**

Seminar G- **John Lowry**

CLOSING/ RECEPTION

4:00 - 5:00 P.M.

Banquet Room A

Presenters



Elson Boles
Professor
Department of Sociology

Elson has served on the SVSU Faculty Association Executive Board since 2006, and is Vice-President of Four Year Colleges, Michigan Association of Higher Education beginning 2014.



James Bowers
Associate Professor
Criminal Justice

James' research interests include program evaluations, testing criminology theories, and researching online learning.



Marlena Bravender
Assistant Professor
Education Technology

Marlena's doctorate is from Eastern Michigan University. Her research interests revolve around game based learning, motivation, and integration of learning technologies.



Joseph Ofori-Dankwa
Professor
College of Business & Management

Joseph is the H.R.Wickes Chair in International Business Studies.

He has a Ph.D. from Michigan State University, and has researched and published about firms in emerging economies.



Rosina Hassoun
Assistant Professor
Sociology

Rosina received her doctorate in anthropology from the University of Florida, Gainesville.

Her interests are in medical and ecological anthropology, refugees and health, and in effective teaching.



John Kaczynski
Director,
Center for Public Policy & Service

John serves on the leadership team for the Michigan Capital Region—American Society of Public Administrators and the Michigan Political Science Association.



Kim Lacey
Assistant Professor
English

Kim teaches writing and gender studies. Her writing has appeared in the *Journal of Evolution and Technology*, *Rhetoric Society Quarterly*, *Bad Subjects*, and *The Information Society*.



John Lowry
Assistant Professor
Kinesiology

John has a bachelor's degree in athletic training from Brigham Young University, and a master's degree in exercise science from the University of Oregon. He is currently finishing a Ph.D. in higher education from Michigan State University.



Mike Mosher
Professor
Art/Communication &
Multimedia

Mike has interests in shared ethics and aesthetics of Community murals, Cyberspace, digital communications technology, and Comics.



Christopher Nakamura
Assistant Professor
Physics

Christopher joined the University after completing a PhD in Physics Education at Kansas State University. He has a particular interest in the introductory physics sequence for scientists and engineers.



David Rzeszutek
Assistant Professor
Theatre

David has professional acting experience at Regional Theatres and theatres throughout NYC. He has his MFA from Ohio University, and recently was awarded the Kennedy Center American College Theater Festival Region III Faculty Service Award.

MAKING STATISTICS FUN

Using Computer Games for Motivation & Fear Reduction

Rosina Hassoun
Marlena Bravender

Abstract

Math and Statistics classes have been known to instill fear in the hearts of students all over the world. Online simulation games may be a way to motivate students to engage in the content without fear. This study using two different games in university Statistics courses showed the variety of components students enjoyed. It was clear they felt comfortable learning in this way and wished for more content through games in the future.

Introduction

Instructors in quantitative fields are continually challenged to make an interesting and effective learning environment for students that may be afraid of content, such as statistics. For whatever reason, the fear associated with this content can be quite a hurdle for instructors. They not only have to diffuse any student anxiety about Statistics, but also provide a fruitful learning experience within the confines of a traditional classroom.

Instructional Challenge

Simulations may provide an avenue for instructors of quantitative fields to tap into the advantages of learning through gaming. Giesbrecht (1996) discussed evidence that the traditional methods of teaching statistics were failing to address "mathphobia", student anxiety and poor performance in statistics classes. Very little seems to have changed in terms of available teaching materials and methods in Statistics that are hands-on and engaging for students a decade later.

However, online simulations allow the teacher to embed measurable learning objectives to become a subordinate part of the game as the user tries to accomplish the goals. Participants can even be allowed multiple attempts to solve a given problem (Driscoll, 2002). Resources are more easily manipulated in online simulations, providing opportunities for analysis and synthesis by the players (McLaughlan & Kirkpatrick, 2005). For this generation of students, a game could provide a natural space in which to address the challenges inherent in learning statistics.

Teaching Innovation

This educational research study examined the effectiveness of online simulations in two college level Statistics classrooms. Two online games were created for both classes. Each game had different features, but the statistics questions were similar. The normal classroom instruction was delivered in a lecture and discussion format and the games were intended to provide remedial and additional methods for students. A standard pretest was

given to all students before a simulation game was provided and a post-test was given later to all students. Students participated and received credit for their in-class participation the day using the games. Some students also chose to play the games on their own devices or computers at home and could play them multiple times.

Impact

Overall the students enjoyed playing the games. The majority asked for games for every statistics unit. In addition, most students felt that the games helped them understand the concepts presented. Students were given the opportunity to play each game once. However, the majority of students chose to play the game multiple times. All participants reported that they felt this type of tool would engage future students in the content. In Game A the students reported that they loved the audio, variety of question types, artistry connected to the story, and availability of additional statistics resources. In Game B the students enjoyed the progression of questions from easy to difficult, the score at the end of the game, the graphics, as well as what seemed to be connected to the textbook information. An overwhelming majority asked for more pictures and video rather than text on the screen. In the analysis of the pre and post-test in both classes the increase in the means before and after the games were not significant in either class (possibly due to class size). There was one outlier post-test score in the second class. If that outlier is removed from the data, the results indicate that there was a significant difference in means minus that one outlier. Although the mean comparison is not totally significant, the student reports about the process are promising in terms of motivation. A continuation of this project is currently in place.

References and Resources:

Driscoll, M. P. (2002). How people learn (and what technology might have to do with it). Syracuse, NY: ERIC Clearing house for Information and Technology.

Giesbrecht, Norman. (1996) "Strategies for Developing and Delivering Effective Introductory-Level Statistics and Methodology Courses.,"
<http://eric.ed.gov/?id=ED393668>

McLaughlan, R., & Kirkpatrick, D. (2005). Online Text-based Role-play-Simulation: The challenges ahead. Simtect, Sydney: Simulation Industry Association of Australia (SIAA), Sydney, Australia, pp. 1-4.

Christopher Nakamura

USING INTEGRATED COURSE COMPONENTS

TO INCREASE ENGAGEMENT

Abstract

Improving student engagement has become a common goal in higher education, but challenges are significant and changes must be made cautiously. I have combined two common engagement techniques, Just-in-Time teaching and In-Class questions, to promote student engagement and to improve feedback on learning. In the symposium presentation, I will share sample questions, discuss my observations of implementation and we will engage in an interactive discussion about strategies for writing questions and activities across all represented fields..

Introduction

In the past, course design was very simple. It was not uncommon for a course to consist of three one-hour lectures per week, one midterm and one final examination. A course in a humanities field might have a couple of term papers and a course in science might have problem sets (which may or may not have been graded). At the end of the 20th century, however research results on instruction in physics suggested that traditional means of instruction were not producing strong learning gains in physics (Hake, 1998). As a result, a number of physicists taking interest in teaching techniques grew into an ongoing explosion of innovation in STEM education. The challenge has become understanding how to select and implement the best techniques for individual classrooms.

Motivation

Many faculty members, both new and established, may feel intrinsic and extrinsic pressure to

implement new teaching practices to improve their teaching. However, there is reason to proceed with caution. Research suggests that implementation experience and skill matters, and that results may actually be worse when first trying a new teaching technique (Turpen, 2009; Andrews, 2011). One can only assume that the risks are greater for homemade teaching techniques, which not have been subjected to rigorous research prior to implementation. We're left with a daunting question: How do I take advantage of novel teaching techniques, apply my own innovation strategies to make them work in my classroom, and do it in ways that respect best practice, minimizing potential problems that can come during early implementation? This looks challenging and time-consuming.

Finding time-efficient, minimally challenging teaching reforms is possible. I will discuss how I combine two: Just-in-Time teaching (Novak, 1999) and In-Class questions with very standard,

traditional teaching to encourage student engagement, and to provide myself with increased opportunity for feedback on a faster timescale than would otherwise be possible.

Instructional Technique

I employ the Just-in-Time teaching strategy of "Warm-Up Quizzes" prior to lecture to focus student attention in the preparation stage, and also to provide me with direct feedback about their preparation prior to lecture. These quizzes count toward the course grade (10%), but are assessed only on whether the student provides a reasonable response. During class (about once a week), I provide in-class questions to ensure that class requires application of the content material. The questions can be multiple choice, or free-response and range from basic concept questions to longer problems. These make 5% of the grade, and students don't know when we'll do them, so there is incentive to come to class, and to participate. These questions are inspired by Peer Instruction (Mazur, 1997), though my use of them is not a direct implementation of that method.

Impact

My choice of techniques is based on a constructivist perspective on learning (Reddish, 2003). Consistent with that perspective, I view weekly course structure in the context of a feedback loop that begins with a student preparing for class, progresses to the application of knowledge (questions, quizzes, homework, exams, etc.) and then, ideally, proceeds to reflection upon that application of knowledge. This final component, metacognition, is thinking about thinking and it is key to learning (Flavell, 1979).

The techniques that I describe here give my students opportunities to focus their preparation (Warm-Up Quizzes), apply their knowledge while I'm observing and peers are there to help (In-Class Questions) and provide me with greater depth of feedback on learning. In my presentation I will discuss examples that suggest students take this work seriously enough to warrant its continued use and that interesting insights into their understanding are revealed.

References and Resources:

- Andrews, T. M., Leonard, M. J., Colgrove, C. A., & Kalinowski, S. T. (2011). Active learning not associated with student learning in a random sample of college biology courses. *CBE-Life Sciences Education*, 10(4), 394-405.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American psychologist*, 34(10), 906.
- Hake, R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. *American Journal of Physics*, 66(1), 64-74.
- Mazur, E. (1997). *Peer instruction* (pp. 9-18). Upper Saddle River, NJ: Prentice Hall.
- Novak, G. M., Patterson, E. T., Gavrin, A. D., Christian, W., & Forinash, K. (1999). Just in time teaching. *American Journal of Physics*, 67(10), 937-938.
- Redish, E. F. (2003). *Teaching Physics with the Physics Suite CD*. John Wiley & Sons Incorporated.
- Turpen, C., & Finkelstein, N. D. (2009). Not all interactive engagement is the same: Variations in physics professors' implementation of peer instruction. *Physical Review Special Topics-Physics Education Research*, 5(2), 020101.

ENGAGING STUDENTS

IN ONLINE COURSES

Kim Lacey
James Bowers

Abstract

Best practices provide a framework for instructors to effectively engage students. Although there are many competing top 10 lists for best practices, overlapping themes involve student engagement through a variety of activities and maintaining a community of inquiry. The purpose of this research is to discuss some of the strategies used in an online CJ 350-Juvenile Justice and an ENGL 212 class and the preliminary findings of those classes.

Introduction

There is a myth that online learning is not as rigorous and engaging as traditional classes (Schrum & Hong, 2002). Simply being a traditional class does not make it higher quality, especially when class size becomes 40 or larger, which seems to be the trend in some areas. In fact, many believe there is a lack of interaction, easier course work, impersonal, low engagement, and not the same quality for online courses. We argue that online classes can be just as engaging as traditional classes and even more so (Bowers & Kumar, 2015). Utilizing best practices can produce meaningful engagements with students in an online format.

Instructional Challenge

CJ 350 was and is the first fully online class developed in the CJ Department. One of the challenges of this course was to deliver the same quality of teacher/student interaction and cognitive engagement. To compare the traditional

and online classes, the Community of Inquiry survey (Arbaugh et al., 2008) was utilized in the CJ 350 (n=47) and ENGL 212 (n=32) classes for the spring and summer 2014 semesters. The results of these surveys will be compared to the traditional counterparts in the Winter 2015 semester. The COI survey covers the three areas of teaching, social, and cognitive presence, and measure that engagement with a valid survey (Arbaugh et al., 2008). Teaching presence was applied to our classes through: timely feedback, instructional videos, regular communication, availability, and facilitation of learning.

Teaching Innovations

Strategies used in the CJ 350 class include reaching out to the students before the class starts and welcoming them to class with an ice breaker, allowing students to see each other. Expectations were clearly stated with rubrics showing the students how to succeed in the class in terms of both quantity and quality of responses for discussion questions. Assignments are set up

as part treasure hunt/ part research assignment to find real criminal justice data. Prompt feedback was given with model answers. Camtasia videos showed students the PowerPoints as they hear the instructor's voice. Weekly checklists kept students on task. Similar strategies were used in ENGL 212, specifically small videos introducing students to the weekly assignments, reviewing concepts, and answering questions. This method of face-to-face interaction provided the students with a comfortable learning environment.

Impact

In the quantitative portion of the survey, CJ 350 students reported a sense of belongingness in the course, being able to brainstorm, and being able to develop solutions. One major theme was engagement, where students reported liking the discussion posts because they felt "connected". ... "like a real classroom". Students reported feelings of affirmation with discussing ideas with students. Students were surprised at how smoothly the class went, real life situations, and video lectures. Students enjoyed the checklists and the pace.

ENG 212 quantitative themes included: problems posed, online medium, collaboration, trust, brainstorming, point of view, and developing solutions. Qualitative themes in the area of engagement showed that students liked the discussions, video updates, and responding to other students. Students felt affirmation with weekly updates, instructor reading drafts, videos, and instructor response. Students were surprised at how interactive the course was, ease of use, how engaging it was with other students, and that it was similar to traditional, face-to-face, courses. Students were satisfied with the clear expectations, class interest, engagement, and a theme emerged "I grew as a writer".

References and Resources:

Arbaugh, J.B., Cleveland-Innes, M., Diaz, S.R., Garrison, D.R., Ice, P., Richardson, & Swan, K.P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *The Internet and Higher Education*, 11(3-4), 133-136.

Bowers, J. & Kumar, P. (2014). Students' Perceptions of Teaching and Social Presence: A Comparative Analysis of Face-to-Face and Online Learning Environments. *International Journal of Web-based Learning and Teaching Technologies*, 10(1), 28-45.

COI Survey. Retrieved from <https://coi.athabasca.ca/coi-model/coi-survey/>

Schrum, L., & Hong, S. (2002). Dimensions and strategies for online success: Voices from experienced educators. *Journal of Asynchronous Learning Networks*, 6(1), 57-67.

BUSINESS ART & THEATRE

REINVENT URBAN COMMUNITIES

Introduction

The goal of the B.A.T. Project is a multi-disciplinary collaborative venture with SVSU's community partners with the strategic goal of helping in the revitalization process of Saginaw by initiating several SVSU student and College wide related programs in the downtown, including a sustainable student-run art & performance space in the downtown. The project was appropriately titled "Business, Art & Theatre Reinvent Michigan Cities". To achieve this, a multi-disciplinary faculty team of Business (Ofori-Dankwa), Art (Mosher) and Theatre (Rzeszutek) broke the project into three phases.

In Phase One: The B.A.T. Project began in the winter of 2012 with a multi-disciplinary event in the Ott Auditorium where students from Business, Art, and Theatre were organized into groups and shared ideas to local business and community leaders on strategies to revitalize Saginaw. This public event included presentations of Business

Mike Mosher,
Joseph Ofori-Dankwa,
John Kaczynski
& David Rzeszutek

Abstract

The B.A.T. Project is a biennial collaborative event of students from Business, Art, and Theatre who are organized into semi-autonomous teams and gather information and share ideas with local business, community leaders, and community youth about strategies for the revitalization of the Great Lakes Bay Region in general and Saginaw in particular. This continuing biennial Project culminates with an ever-growing collaborative community engagement event. Our primary assumption is that intra- university and university community collaborations by SVSU student engagements in the downtown area can serve as an important catalyst in the revitalization of Saginaw. Students in The B.A.T. Projects have engaged the city youth, expanded their social and business networks, and honed their collaborative skills and work ethics and continued to nurture the bond between SVSU and our community partners.

plans, murals by Art students in support of the presentations and Theatrical Scenes.

In Phase Two, in Winter of 2014, the collaborative B.A.T. student teams undertook highly successful public presentations in downtown Saginaw at a packed DOW Event Center. In particular, the inter disciplinary student teams worked with partners from the United Way of Saginaw, First Ward Community Center, the Saginaw HS Marching Band, and SVSU's Cardinal Singers.

Plans for Phase Three are on the way with the B.A.T. team planning for the Winter semester of 2016. The team is looking for a sustainable, student-run theatre and art workshop space that would also be used for other university departments' projects and participation. Community engagement will be year round, culminating in an annual SVSU Downtown Community Festival.

Teaching Innovation

This Multi-Disciplined model highlights the power of collaborative synergism. In addition, it introduces our students to the real world realities of 21st century virtual collaborative teams. We see the B.A.T. project as a potential model that could be adopted and adapted to offer opportunities for collaboration between disciplines and departments in our SVSU Colleges and also for collaboration across Colleges.

Further, the extensive community partnership inherent in the B.A.T. project is clearly furthering and entrenching SVSU's achievement of the prestigious Carnegie Foundation's Community Engagement Classification.

Impact

This Project has helped students see the real world impact of working in teams and, in particular, the synergism associated with high level collaboration. The B.A.T. Project has also further solidified partnerships within the community with community associations as United Way of Saginaw County and First Ward Community Center. The B.A.T. project has also resulted in creating a new partnership for the Theatre Department with Road Less Traveled Productions (RLTP) in Buffalo, NY with whom SVSU Theatre students will workshop a new play and RLTP will produce the professional World Premiere of this play, four months later. This Project has also created a downtown community art work mural across from the DOW Event Center and several murals throughout the SVSU campus.

Lastly, this program was part of SVSU's successful drive to achieve the Carnegie Community Engagement Classification.

References and Resources:

Phase I, 2012:

A twelve-minute documentary video on B.A.T. 2012 by Scott UMBERFIELD can be seen at: <http://vimeo.com/52670515>

Phase 2 Symposium, 2014:

<http://www.svsu.edu/care/muralprojects/doweventscenterijustliketomakemarks/>

FLIPPED COURSES — WITH — TEAM-BASED LEARNING

Elson Boles

Abstract

Flipped courses with team-based learning improve student learning and engage students' interest. A flipped course is one that reduces lecture time, increases pre-class preparation time, and increases time in class testing and applying knowledge through active learning assignments. With team-based learning, students work in permanent teams throughout the semester on testing and assignments. They take quizzes in class both individually and as teams, and complete active learning assignments in teams. This workshop demonstrates a flipped team-based learning approach that takes advantage of Saginaw Valley State University's learning management system (LMS), VSpace and Canvas, and associated technologies, including Google Docs.

Introduction

In Spring Semester 2014 I attended a National Education Association conference where presenters at a workshop taught about team-based learning using the same method. We watched a video, followed a short PowerPoint presentation, read a bit of literature, including an in-depth article on team-based learning by Michaelsen and Sweet, and then formed teams. First we took a quiz individually, then as teams. The team quiz was brilliant, a "eureka" experience for me. It engaged each of us because we compared and debated our choices on the individual quiz and because we competed with other teams doing the same. After this activity, we reviewed models of team-based active learning assignments and worked on one as a team.

Instructional Challenge

In years past I tried to deploy active-learning writing assignments and group discussions, but encountered various problems. With introductory

courses of 45-50 students, even a few individual writing assignments created an unreasonable workload in light of the cycle of submission, faculty evaluation, student revision and resubmission, and second evaluation. One assignment was too few for the student; two or three were too many for me. At the same time, online group discussions were often not much more than mutual cheering sessions among students rather than critical interaction, and typically did not sufficiently deepen or extend their understanding of content. Creation and management was also a technological nightmare.

I had also been dissatisfied with quizzes and exams. Students were taking quizzes online outside of class in preparation for proctored mid-terms. Their scores indicated that they were not taking advantage of the quizzes, whether timed or not, whether multiple attempts allowed or not. They were not finding correct answers to errors, and some did not even bother to take the quizzes. Lastly, despite my passion, I became increasingly

dissatisfied with the repetitious, if not sleep-inducing, pattern of PowerPoint lectures and passive learning. There had to be a way to better engage students with the content so they performed better on exams, so that class learning was more active, and that provided numerous opportunities to improve their basic writing skills.

Teaching Innovations

The better way is to flip a course through the team-based learning. For me, I needed a way to do that which took advantage of paperless learning technology, namely VSpace and Google Docs. The conventional team-based format for quizzing makes use of scratch-off cards; students scratch off answers and they get fewer and fewer points for multiple selections until they find the correct answer (see the very useful website, Team Based Learning Collaborative). This method is effective for team-quizzes because students debate each choice before scratching, and because it provided immediate feedback. However, the cards are costly, and for faculty, they are paper intensive, and require manual calculation and input of results. Similar results, I determined, could be achieved doing quizzes in our LMS, which eliminates paper, human error, and saves time. It works best if students bring a laptop so they can see their selections (but not results) on their individual quizzes in one window while taking the team quiz in a second window. As seen in the video on team-based learning shown at the conference, students in my classes engage and debate their choices. The room bustles with discussion as students explain why one answer is better than another.

The second solution, that for writing assignments, is to utilize Google Docs. Google Docs enables team members to work online on the same page at the same time. It is easy to use and set up, and resolves problems with file sharing and differing versions. And because I am on the teams as a supervisor, I can see who has done what. Students see each other's input and suggest changes and thereby engage in writing more actively than on

their own. Upon my evaluation, each individual Team member makes a note that she or he has read my comments before the team begins revising. This method also makes multiple writing / active learning assignments feasible in large classes. The assignments can be started in class and finished outside of class, or may require students to watch a video or do research to complete the questions or problems.

Twice a semester students complete anonymous peer evaluations, which are an important element of team-based learning. For one, knowing that they will be evaluated encourages professional interaction and preparedness. For another, since they receive full credit for completing the evaluations regardless of their comments, they typically provide an honest assessment and make comments that a faculty member would hesitate to make.

Impact

Although I have only recently flipped my courses using the team-based format, the results are encouraging. Students' quiz and exam scores are improving and the number who failing has declined. Students have commented in person and on course evaluations that they like this method of learning. I also like that I am able to interact with students more as I walk around the room and help them. This method has made teaching a more effective, pleasant, and rewarding experience for everyone.

References and Resources:

Larry K. Michaelsen, Michael Sweet, "The Essential Elements of Team-Based Learning," *New Directions For Teaching and Learning*, no. 116, Winter 2008, Wiley Periodicals, Inc. (www.interscience.wiley.com) • DOI: 10.1002/tl.330

"Team-Based Learning: Small Group Learning's Next Big Step." *New Directions for Teaching and Learning*, Eds. Larry K. Michaelsen, Michael Sweet & Dean X. Parmelee, (2008) 116. San Francisco: Jossey-Bass.

John Lowry

MEDICAL SCRIBE PROGRAM

Abstract

Partnerships between a university and a community organization can be mutually beneficial. A medical scribe program was created by SVSU and Covenant Healthcare. Students in this program obtain medical scribe training, and can then be hired as a scribe working directly with physicians. The training and experiences they have can be beneficial to prepare students for a career in medicine. This partnership has helped to create research opportunities at SVSU, and it has made an impact on healthcare at Covenant Healthcare.

Introduction

A medical scribe is a professional who takes notes while a physician sees a patient, and helps to develop the official medical record of the encounter. Medical scribes must have knowledge of medical terminology, use of electronic medical records, and understanding of how healthcare is delivered in the clinical setting.

The medical scribe program at SVSU begins with a course (Kinesiology 380) that provides students the training. Students interested in a career in medicine, nursing, and other healthcare professions may take this course as an elective that is covered by financial aid and scholarships. After completing the course, students are eligible to be hired at Covenant Healthcare as medical scribes in the emergency department and neonatal intensive care unit (NICU). Scribes follow the physicians as they see

patients, and document the history, physical exam findings, medical procedures, and other aspects of the medical encounter.

Teaching Innovation

This program involves innovations in the educational program as well as the work experience they can obtain. The first innovation of the educational program is that it uses a partnership between the university and a community partner to provide a unique experience for students that is also beneficial to the hospital. Other innovations in the educational program are the use of both team based learning and simulation. These pedagogies have shown to be superior to other forms of teaching, and they are widely used in graduate programs in health professions. Students in this program will be very prepared for them in their future educational programs.

Working as a medical scribe provides a powerful experiential learning program. Students see healthcare delivered to diverse patient population, and they play an active role in the documentation process. Medical scribes learn a large medical vocabulary, and they are very familiar with the presentation and treatment for many medical conditions. As they interact with many different professionals, they get the opportunity to discover if a career as a physician is right for them.

Impact

This program has had a tremendous impact on the students preparing for a career in medicine. Working as a scribe provides the chance to earn money as they participate in meaningful work experiences. Their work experiences give them a wealth of knowledge about medical conditions, medications, and procedures, which gives them an advantage in their graduate studies. While in medical school, they can draw on their experiences to help them understand complex medical physiology, and to be comfortable in the clinical environment. Their experiences also help them learn about the ethical, business, legal, and quality control aspects of healthcare. The social aspects of the experiences help them identify a number of mentors and role models who can support them as they undertake the rigorous path leading to graduate school. Medical scribes have the unique ability to develop as professionals because of this unique experience.

This program has also benefitted Covenant Healthcare. Physicians report that working with a medical scribe makes their jobs easier, and allows them to focus their efforts on providing patient care. Working with a scribe can help physicians provide care to more patients, produce better quality patient records, and improve medical care by providing real-time documentation. Scribes may be able to improve employee morale and job satisfaction by lowering stress and reducing burnout.

Lastly, the university has benefitted from this program. The pre-medical program has been strengthened as students have become involved in the medical scribe program. We have been able to retain SVSU students and attract students from other universities. Because medical scribes have not yet been studied in the literature, there are numerous research opportunities from this program. Lastly, this program was part of our successful effort to achieve the Carnegie Community Engagement Classification for the university.

References and Resources:

<http://www.svsu.edu/premedical/studentopportunities/>

http://www.mlive.com/news/saginaw/index.ssf/2012/03/svsu_students_work_side-by-sid.html

http://www.ourmidland.com/news/article_5f959228-799e-11e1-a77c-001a4bcf887a.html

Cooke, M., Irby, D. M., O'Brien, & Carnegie Foundation for the Advancement of Teaching. (2010). Educating physicians: A call for reform of medical school and residency. San Francisco, CA: Jossey-Bass.

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Grant Opportunities

Center for Academic Innovation will award grant funding to support academic and pedagogical innovation to enhance student learning (Funding provided by the Herbert H. and Grace A. Dow Academic Development fund). The competition is open to all tenured/tenure-track faculty. There is an estimated number of six awards with estimated amounts of up to \$5,500/project.

Timeline for Grant Applications:

Deadline for Submitting Application: March 16th

Announcements regarding the grant recipients: Friday, April 17th

Grant Information Sessions:

Tuesday, February 24th 8:30 – 9:30 a.m. (SE 213)

Wednesday, February 25th 2:30 -3:30 pm (SE 213)

Notes

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