Teaching Technology: Project Based Learning to Develop Industry Specific Skills

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Innovative Approach or Practice that Merits Sharing with Others

Constructivist theory provides the perspective that knowledge construction is the process of learning (Makgato, 2012). This idea of knowledge construction is used in a variety of teaching methods including project based learning. Project based learning allows students to be the driving force behind their own learning by creating projects that reflect their knowledge (Bell, 2010). Student choice is the essential element to this type of teaching approach (Bell 2010). Guided by this theory and teaching method, the instructor developed an introductory technology course for retail students. The course centered around students producing multiple brand development projects to learn a variety of computer applications including Microsoft office and Adobe Creative Cloud (Photoshop and Illustrator). The projects are compiled by students at the end of the semester to submit a cohesive portfolio which serves as the capstone project for the course. Projects include: (1) brand letter/statement, (2) logo development, (3) purchase order, (4) flat sketches, (5) trend and line boards, (6) look book, and (7) store layout.

Purpose for Identified Audience

The purpose of this presentation is to help other teachers identify best practices for creating a technology course. New instructors or those updating curriculum can benefit from the knowledge of someone who has developed this type of course at two different institutions. Additionally, this type of computing course can be designed to take the place of the university require computing course which can help retail students learn skills that are specifically relevant to the retail industry. This presentation will provide pros and cons of teaching technology as a project based course, provide visual examples of student work, and will address the importantly increasing role of technology within the curriculum of the textile and apparel industry today.

Implementation of Practice Clearly Delineated

This retail technology course was first taught as an elective course that met one day a week for 2.5 hours. Students received one credit hour. The projects in this course were meant to help students learn a variety of computer skills while also having them develop their own brand and product assortment. Students developed their own brand by writing a brand letter, developing a brand logo, designing a product line (trend boards & flat sketches), creating a purchase order, developing a look book for their line, and creating a visual for how the products would be displayed in-store. Each project gave students the opportunity to learn a variety of skills. For example, in the brand letter, students wrote and formatted a letter to a potential business partner in which they detailed the specifics of their brand including target market, product category, and price point. Additionally, in

this assignment students were taught three different ways to complete an electronic signature. So not only did this project teach students how to create a letterhead, format a business letter, and do an electronic signature, it also helped them to improve their written communication skills. The capstone project for the course is the development of a portfolio which contains all the projects completed throughout the semester. As part of the portfolio, students were required to note, in their own words, a description of the project, skills used, and the learning outcomes. During the presentation, the instructor will provide full detail of each project including the computer application used, skills acquired, and learning outcomes.

Description of Success of Practice in Fostering Desired Learning Outcomes

A pre and posttest survey was used to evaluate student learning outcomes. Students were asked to complete a pretest the first day of class. The quiz consisted of a series of questions that asked students if they execute a particular skill. For example, "do you know how to save a word doc as a pdf?" and "do you know how to live trace in Illustrator?". The pretest served as a baseline for the instructor to understand the skills that students currently lacked. Students took the same quiz on the last day of class with a result of 100% of the class knowing all of the skills on the quiz. Not a single student knew over 50% of the skills at the beginning of the semester. Additionally, and the most notable indication of success is the achievement of the students, who have completed this course, outside of the classroom. Our university does not have a design program, but students who have completed the technology course are now more competitive for creative internships and have been successful in competing and winning national scholarship competitions (i.e. AATCC and YMA) .

Indication of Plans for Continuation, Revisions or Follow-Up

This course has been approved by the university to be a liberal studies course allowing retail students to take this course in place of the university require computing course starting in the fall. All retail majors will be required to take this course and the format will be updated to a three credit hour course. One of the main revisions that will occur this fall is to cover more skills in Microsoft Excel. The previous course format has student complete a purchase order in excel in which they learn basic cell formatting, creation and execution of formulas, and how to graph data. Next fall, an additional week will be spent in excel teaching students more advanced skills for data analysis.

Work Cited

Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House*, *83*(2), 39-43.

Makgato, M. (2012). Identifying constructivist methodologies and pedagogic content knowledge in the teaching and learning of technology. *Procedia-Social and Behavioral Sciences*, *47*, 1398-1402.