



INNOVATION ABSTRACTS

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“FUN PROJECTS”: GENERATING INTEREST IN A DIVERSE CLASSROOM

About a year ago, I took a new teaching position. As the incoming “freshman” among the faculty in the Business and Information Technology Division, I was slated to teach a full load of computer concepts and applications sections.

Before the semester began, several faculty commented that they considered concepts one of the more difficult courses to teach, partly due to the disparate skills and goals of the students. Finding a way to teach a diverse classroom effectively is a challenge.

In an average concepts class, students who do not know how to use a mouse or keyboard sit next to those who spend hours on the Internet. Some may have installed an operating system or put together their own computer. One student feels overwhelmed while another incorrectly thinks that a specific computer skill equates to an automatic “A” for the course. So, in addition to teaching, the instructor’s job is to provide encouragement to the less-prepared while convincing the overconfident that there really is more to learn.

As well as differing skills, the students’ majors and career goals vary. Some students choose computer science, business, or management information systems. For them, the concepts class lays a foundation for all subsequent computer courses. However, a number of other students are education, psychology, liberal arts, or nursing majors. Some have not chosen a major. Others are taking the class for continuing education purposes. For all those students, the concepts course must cover information and skills needed for “computer literacy.”

This challenge of teaching students with varied abilities and interests raises several questions. What are the most important concepts and skills that any student needs in order to work effectively with computers and technology? How can the concepts course be relevant to a diverse group of students? What classroom activities and assignments will be used to accomplish these goals?

Of course, there are studies that indicate the specific computer skills and knowledge employers seek, but the specifics that are taught today are quickly outdated or even replaced tomorrow. New editions of computer science textbooks are published every 12-24 months. To compete effectively for jobs, potential employees must continually upgrade technology skills relevant to their career paths. So in addition to basic computer skills, something else is needed: the ability and desire to acquire new computer-related skills and knowledge. Individuals who find technology exciting and spend time exploring the use of computers in their areas of expertise will tend to keep up with future changes. If in addition to basic computer skills, each student in the computer concepts course acquired the desire and the ability to learn about new technology, the class would be successful.

Learning to explore and apply new technology appeared to be a unifying objective that would be relevant to everyone regardless of interests, expertise, or career paths. However, the question remained about how to translate this objective into classroom activities and assignments. For consistency with all the other concepts sections, the basics that are traditionally covered in the course could not be set aside.

Implementing “Fun Projects” in the Classroom

I decided that in addition to the regular assignments, students would be required to complete one “fun project” per week that was related to computers and technology. The project would be of the student’s own choosing and must be enjoyable.

I added a new objective to the course syllabus and listed it first in bold type: “**You will have fun exploring new technology!**” More than a few eyebrows raised and grins passed over faces as I went over this point on the first day of class. With a most serious composure usually reserved for academic integrity topics, I stated, “Yes, you will be required to have fun, AND you will be graded on it.” At least, I had their interest at this point.

The directions for the projects were simple: Do a fun project related to computers and technology. In a short paragraph, tell me what you did and what you learned.



Please make sure that you are **learning something new** that we have not covered in class. Please **be specific** about what you are learning. Place this information in a file named: "Fun Project 1 – Your Name" and save it to your floppy diskette.

Through this exercise, students began to take charge of their own learning. They were required to decide what they needed or wanted to learn. Then they had to choose an avenue to accomplish their project. Students were not graded according to the difficulty of the project, so there was freedom to choose projects that interested them rather than pressure to choose what they thought would please me. Some students spent hours on this exercise each week while others spent less than an hour. Larger projects, such as creating a web site, were divided into smaller projects that spanned several weeks. Since the actual completion of this assignment was based on the honor system, all projects combined totaled less than 10% of the grade for the entire course.

Results

As I started this weekly exercise for all classes, computer-savvy students took more interest in the class, and those who needed to catch up with other students received credit for learning basic mouse and keyboard skills. Some students had more ideas than they could handle, while others needed a list of ideas each week. Periodically reading some of the more interesting projects gave others ideas and helped generate interest.

Some students began staying after class to get pointers or discuss their successes. Students shared their discoveries with each other, volunteered for computer-related projects at work, and spent time teaching computer skills to friends and family members. Beginning students started by learning how to work with a mouse but within a few months had graduated to creating their own web pages using software provided at Internet portal sites. Some created web sites for family-owned businesses. Groups of students gathered together at their homes to install software or hardware. Some advanced students installed operating systems or worked on setting up home networks. Every student accessed their technology-related interests and skills each week in order to choose a new project that was both fun and a learning experience.

Halfway through the first semester, I compiled a list of projects and later posted these to a web site for student reference. Projects included the following:

- Helped set up a new computer at work
- Bought a headset and signed up for free long-distance phone calls
- Learned how to send an attachment to e-mail

- Installed a program for the first time
- Sent e-cards to friends
- Used [a word processor] to create business cards
- Filed taxes online
- Used [web site development software] and visited web sites that used this software
- Set up and used Internet service for the first time
- Learned how to use a scanner
- Made a web page using [software at an Internet portal]
- Read hometown newspapers on the web
- Downloaded maps for a trip
- Learned how some daycares in England let parents check in on their children by streaming live video over the Internet
- Watched a demonstration of a digital camera
- Taught a family member how to send e-mail
- Checked out [a free Internet service provider] and read through the terms applied to free Internet access

Conclusion

In looking over the last two semesters, the important factors of the fun projects assignment that helped students to explore computer technology include:

- An atmosphere of excitement and encouragement,
- Continual emphasis on the importance of learning something new,
- Discussion of ideas for projects during the class period,
- A web page or some other avenue that provides a list of project ideas,
- Credit based on the learning experience rather than on the difficulty of the project.

The fun projects continue to be an answer to two very different students. Those students who believe they are bored are dared to do something interesting and challenging. Those who have never touched a computer can catch up on basic skills and get credit for doing so. Regardless of diverse majors, interests, or levels of computer-related skills, the fun projects provide students with a unifying, relevant exercise without significantly changing the content of the course.

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