

Database Lesson Plan Essay
William Warrick
EDIT 711
Teaching With Technology I: Telecommunications and Databases
Priscilla Norton/Debra Sprague
May 6, 1998

Information is power
Francis Bacon

*What we need today is not more power,
but rather the power to manage the information that we have.*
Priscilla Norton

We are living in an age where the currency and product of much of what we do is information. The information explosion that we must face is staggering in its proportions. Not only is the amount of information a cause for concern among educators, but the means to access that information is changing as well. Rather than focus our attention on the futile task of keeping up with the *amount* of information, shouldn't our goal be to give our students the means by which they can access and manipulate the data? This lesson plan is designed to explore the on-line database as a means of finding and gathering meaningful data and to enhance the communication skills our students will need to be successful lifelong learners.

In the initial phase of the lesson, the students were given the task of choosing companies that traded stock on the New York Stock Exchange, locating information about those companies and making investment decisions based on the information they could obtain. Rather than simply give the students that information, it is necessary to provide the tools they need to search for the data on which to base their plans. These search skills are readily transferable to all other curricular areas and will form the basis of an improved ability to deal with the information 'overload'. Students are given the opportunity to design a strategy for searching based on criteria

that is at first teacher directed and then augmented and extended by group deliberation.

Once the companies have been decided upon and investments made, the students are then instructed to track the daily performance of their stocks using an on-line database.

(www.nasdaq.com). This gave the students the opportunity to experience and exploit one of the affordances of the Internet - its currency. The ability to immediately distribute information world-wide allows us to stay up-to-the-minute on that information that we need. In dealing with financial matters, this immediate information is critical. Fluctuations in the stock market minute-by-minute can have a profound impact on investment strategies. The use of an on-line database allows students to literally witness those fluctuations as they occur and analyze the effects on their investments. Utilizing the Internet to stay abreast of ever-changing events is vital in almost all areas of learning.

Accessing the *Nasdaq* web site, the students are presented with a large amount and wide variety of information. Given the structure of the lesson plan and the goals for investing set forth by the instructor, it is up to them to decide the types of information that will be valuable to them. One of the most discouraging aspects of using the Internet, or a database, is the overabundance of information that is presented. However, it is up to educators to give the students the skills needed to evaluate the information as to its relevance and quality. Norton & Wiburg, in Teaching with Technology, write, "...effective sorters must be able to determine which parts of the remaining information are important and which parts are superfluous. In a world producing information faster than it can be sorted, deciding what not to attend to becomes as important as deciding what to attend to."

Simply being able to find and collect information is not enough. The students must

synthesize the information that they have collected and communicate that information in a meaningful way. Students today must have the ability to take information and create effective presentations of that information. Graphical representations of numerical data is superior to tables because of what Donald Norman calls the “Perceptual Principal”. In Things That Make Us Smart, he writes, “ Perceptual and spatial representations are more natural and therefore to be preferred over nonperceptual, nonspatial representations...” Encouraging students to use the spreadsheet graphing functions gives them the tools by which they can effectively relate to others their experiences in working with the stock market. Students are able to demonstrate the performance of various stocks, as well as the resulting profits and losses in a way that is easily understood.

Bibliography

Norton, P. & Wiburg, K. (1998). Teaching with Technology. NY: Harcourt Brace College Publishers.

Norman, D. (1993). Things That Make Us Smart. reading, MA: Patrick