Training Teachers to Use E-mail
A Proposal for a Behaviorist Study

By
Laura Malcolm
Anuja Dharkar
**Introduction of Learning Problem:**

At Clemente High School in inner city Chicago, the principal has implemented many innovations to foster collaboration among teachers and between subject areas. In 1998 the principal introduced the concept of core teaching for the 9th grade. In this construct a set of four teachers work together with the same group of students during a school year. The stated purpose for the teams is to allow teachers to collaborate on interdisciplinary lessons, share insights concerning students, and create a “school within a school atmosphere” where students and teachers would know each other well. In addition, the principal equipped each 9th grade classroom with computers and Internet access for integration into classroom activities and to foster collaboration between teachers. Each classroom was supplied with a teacher workstation loaded with Microsoft Office and e-mail software (Eudora Pro). At the end of the 1999 school year the principal conducted a survey to assess how well teachers are using the technology to communicate with each other. Teachers reported that even though they had access to the e-mail program, they kept with their old routine. Teachers also reported difficulties using the e-mail program to accomplish their daily communication tasks. Based on these reports, the principal concluded that teachers need to be trained to use e-mail effectively. She asked us to provide a teacher in-service at the beginning of the 2000 school year to train teachers in the use of e-mail within the school environment. In order to prepare for the in-service training we will analyze the hierarchy of learning e-mail, assess the current skill level of the teachers, and propose a training program to increase teacher skill levels in using e-mail.

**Determining a Learning Hierarchy for E-mail skills**

In order to assess teacher skill in using e-mail we must first identify the learning hierarchy associated with the process. In constructing this learning hierarchy, we must be careful to consider all tasks including computer functions not directly associated with the software application. This hierarchy would be constructed by breaking down the tasks involved in e-mail into smaller tasks from the simple to the complex. For example, in the process of e-mailing, skills can vary from turning on the computer to opening an attachment in the proper application. With a detailed breakdown of skills we would be
able to then assess teacher competencies in each of these skill areas. In creating the hierarchy we would “think through” what someone is doing when they compose and send e-mail. We would next write out sequential steps detailing what the user must do to perform that task. One way to compose these steps would be to observe a proficient e-mail user going through the process of creating and sending e-mail, carefully detailing each skill that is used. Another option is to identify program features and ascertain the skills involved in using them.

**Assessing Teacher Skill Level**

Once we’ve determined the learning hierarchy involved in sending and receiving e-mail, we would begin collecting data on the present skill level of the teachers. Based on the initial surveys, we believe there are four main obstacles to the effective use of e-mail at Clemente High School: some teachers do not know how to use their computers, some do not know how to use e-mail applications, many have not reached the skill level necessary to make e-mail more efficient than traditional communication methods, and the wide variance in skill level makes communicating through e-mail frustrating for teachers.

**Evaluating Teacher E-mail**

A method to assess the obstacles would be evaluating teacher e-mail. We would review e-mail files looking for evidence of completion and competency in each task within the e-mail learning hierarchy. Questions we would answer through this evaluation of their e-mail would include:

- How often are they sending e-mail?
- Do send attachments?
- Do they format the text?
- Do they include hyperlinks?
- Do they send multiple copies of the same e-mail to different people?
- Do they use the “cc” or “bcc” function?

Based on what the teachers have created, we will determine what skills they are using and to what level of proficiency.

**Directed Observations:**

Next we would use directed observations to identify the current teacher skill levels. In a one-on-one environment, teachers will be given a list of tasks to accomplish. For
example, different tasks we would ask them to demonstrate from the hierarchy of skills would include:

- **Easy**: turning on the computer, e-mail a paragraph of text
- **Moderate**: sending the e-mail to a group of recipients, formatting the text that they create
- **Difficult**: creating a hyperlink to include in the e-mail, attaching and downloading attachments

We will observe their actions and what they produce, and from this be able to categorize their skill level within the hierarchy. Examples of the learning problems teachers face may be that they have reached the “easy” level but not the “difficult” level of the learning hierarchy, or teachers are missing steps within the moderate level that makes troubleshooting the difficult level harder. What we will most likely discover is that within the group of teachers, there will be a wide variance in skill level and learning problems. Once information has been gathered regarding existing e-mail skills, we can determine the training necessary to teach the skills teachers still need to master in order to be proficient e-mail users.

**Training and Follow-up**

Now that we have gathered information on the skills required for competency in e-mail usage, and the skill level of teachers, we can design a process for training that builds the skills that are missing. During the initial week of training we will conduct a series of workshops. Our prior observations and evaluations of e-mail usage will inform our design of the sequential learning plan. The first step will be categorizing teachers according to skills mastered, followed by a recommendation for sessions to attend. We will conduct a series of workshops, starting with the basic skills and working towards the more complex. Teachers may then join in the process of training at the level at which they are lacking competency in skills. Sessions in the training program will address everything from the needs of non-computer users to the most complex tasks involved in the e-mail process. At the end of each daily training session, teachers will be given a test to assess whether they have mastered the skills in a certain domain. Based on the results, teachers will receive a recommendation to either repeat the session or move on to the next skill level.
A follow up plan will be created for continued learning after the initial week of training. This plan will be created to address the needs of teachers at various skill levels and lead them to mastery of the e-mail process. Components of the plan will include a written tutorial and help guide and a mentorship program where teachers at a higher skill level will assist other teachers by training those with a lower skill level. Through these measures we endeavor to 1) provide teachers with the skills necessary for the use of e-mail, 2) enhance communication within the school and 3) build a process for peer training and mentoring.