Can a Course Be Taught Entirely Via Email?

Distance learning is a hot topic on U.S. college campuses. Recently, a trend has developed in many schools to offer complete email courses, and in some cases, one can obtain an entire degree via email [3, 4]. But there are nagging questions: In such a course, do students get a proper education? Do degrees offered through email increase the quality of the programs or merely increase the class enrollment?

The typical course structure taught through email is as follows: Students and teachers rarely if ever see each other. Students download the syllabus from the Web or the syllabus is emailed to each student. Email-course students buy the same books as would students enrolled in the same course taught in a traditional classroom. Every week, the instructor assigns reading material and exercises from books; students complete the assignments and email the results to the teacher. The teacher evaluates the work and returns the graded assignments via email. Exams are also email-based.

In my view, teaching an entire course or offering an entire degree via email is not appropriate. In doing so, the quality of education is compromised for the following reasons:

- Teaching (and learning) is a dynamic process. A teacher uses facial expressions, hand gestures, and a variety of other aural and visual cues and feedback from a class to set teaching pace and style. This is not possible using email.
- The present state of technology (even with a high degree of compression) cannot effectively support audio/video Internet transactions in real time when students have at most a 56K bps modem. This situation will improve when increased bandwidth capacity makes affordable audio/video transmission possible, but is currently a limiting factor.
- Presently, there is not enough standardization in email packages. Responses to email structured and formatted in a particular fashion in one email application might appear differently when received and viewed in another email system, losing any cues expressed in email formatting and structure.
- Learning styles differ. Some students are visual learners, others need special one-on-one instruction. This is not possible with email.
- There are no checks and balances to ensure that work submitted via email is the enrolled student's and not somebody else's.

How do students view this type of course offering? How does this type of course affect students learning the material? Is there something intangible students miss in a course taught entirely through email? To find out some answers to these questions, I asked my freshman students “Can an entire course be successfully taught through email?”

I present a sample of student responses from two CS 1003 Computers in Modern Society classes. This question was an examination essay question, to be emailed to me during the scheduled examination time. Students come from a mix of rural and urban areas in Northeast Oklahoma and are from a traditional undergraduate university. Since all these students are familiar with basic computer usage, including word processing, spreadsheets, Web, email, and so forth, I believe these students have an understanding of the topic and hence an informed opinion.

Of the 65 students who took the exam, 54 responded that a course cannot be successfully taught via email. Only seven students responded that it could, and four responded “yes” with reservations. The following are several varied student comments.
"I personally would like to have someone talking to me face-to-face and showing me things visually rather than through a computer. Cheating could easily occur, many problems could rise, and there might not be anyone there at the time to answer questions."

"The only classes it would present problem for would be in the arts, like music, where the student sings or plays for the professor. I wonder if this will even be possible in the near future through video transmissions."

"Being able to get help just by being one-on-one with a professor can sometimes help you more than reading the information out of a textbook. I think you also need to be in a classroom with other people to better learn information because sometimes there are questions asked in the classroom that you didn't even think about and need to know the answer."

"I believe the Internet has all the technology to achieve this, but I learn better from a teacher standing in front of me. But I do believe the Internet can be a very useful tool to assist the professor with teaching."

"I definitely think a person can successfully be taught a college course via email. The only restriction would be the students and their abilities to persevere throughout the course and know they have to help teach themselves."

"Of course, there would be advantages and disadvantages to taking a course via email. There wouldn't be anyone to form study groups with or someone to help you immediately with questions, but there wouldn't be a commute to an out-of-town college. I think it would be extremely stressful to take one of these courses. If the person desired it, they would be successful."

"In my opinion, successful learning cannot be achieved just through email. Succeeding in a course is an experience one should gain knowledge from, and a person cannot gain the right amount of knowledge without physically sitting in a class and listening to the lecture. A student should be able to interact with other students in a normal classroom environment. Interaction among peers and instructors is a major necessity. Email has propelled us into the future with great hopes and dreams, knowing well discover yet another great innovation."

"Earning a degree while not in a classroom would not be a wise idea to me. It would be like taking a vacation and not leaving your driveway."

**Conclusion**

There have been a number of studies supporting distance learning \([2, 5]\), and distance education holds tremendous potential \([1]\). I am not aware of any studies, however, that support teaching entirely via email. I do not dispute the usefulness of distance learning in cases where students are in remote places, where students have disabilities or responsibilities that prevent them from commuting. Distance learning using a combination of media, including interactive TV, email, and other high-speed communication facilities is fine in these latter cases. However, I believe solely using email is not appropriate for high-quality education.

Most of the responses from students support one or the other of these assertions. Unless a technology supports interactive and effective real-time, audio/video transactions from home and is inexpensive enough that an average student can afford it, teaching entirely through email should not be done. As technology matures, we should make the transition in such a way that students also get a quality education. The transition should be gradual, however, and as technology matures and supports effective transmission, it may eventually be possible to use email exclusively.

I invite views and reactions from readers on this important issue.

**References**

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