Graduate student preference for instructor feedback in MBA distance education

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ABSTRACT

Distance education is an accepted delivery option for education at all levels today. In this environment, education is delivered via one of many course management platforms (CMP), which support a variety of technologies. This provides a great opportunity to apply and test the various facets of Media Richness Theory. This paper describes the result of an experiment where instructor feedback to graduate students was done via Word documents (written) and .mp3 files (verbal). While research shows students have a preference for getting feedback via podcasts and other verbal means, the students in this study overwhelmingly favored the written feedback. However, the main results come from the qualitative answers given by the respondents. Reasons for this and implications for CMPs are discussed.

Keywords: Instructor feedback, graduate, distance education, MRT

1. INTRODUCTION

Distance education has become an accepted method for delivering education. There are many definitions of distance education, however most revolve around the idea that the students and instructors are not at the same location. They correspond in a number of different ways, using different types of course management platforms (CMP) which incorporate different types of media (Beldarrain, 2006). They can meet in a synchronous or asynchronous environment. As such, instructors need to be aware of the effects of the environment and technology on interactions (Dabbagh & BAnnan-Ritland, 2005; Dennen, 2005). For this study, distance education refers to a primarily asynchronous environment where neither the students nor the faculty meet face-to-face.

Research has shown that student perceptions toward distance education are different, and must be addressed. For example, negative student perceptions toward distance education can result in higher than average dropout rates (Carr, 2000) and lower satisfaction with the learning environment (Muilenburg & Berge, 2005). The time lag between student submission and instructor feedback is also an important component in student satisfaction with distance education (Arbaugh, 2001).

The different media that are supported by whichever CMP is used can influence how well the students are supported and how well they can learn. The ease with which the students can use the technology is also important, as is the ease with which the students can use the feedback (Saade & Bahli, 2005; Brown, 2002).

The various media support differing levels of feedback. Most student feedback is text based in the form of an email or an email attachment such as a Word document. The audio medium has started to gain popularity in distance education courses in the form of a podcast. However, it is currently used more for content delivery than student feedback.

1.1 Podcasting

One of the newer technologies used in distance education is the podcast. A podcast is essentially an audio file made by the instructor using any number of software programs, which is downloaded or streamed to students to playback on a PC or portable device such as an iPod. The files can be saved in various formats, depending on the software program used and the technologies available to the instructor, the students and the CMP. Studies have found that this type of audio feedback is preferred by students (Copley 2007). Some of the benefits of audio feedback found by researchers include; building a connection between students and instructors (Schlosser & Burmeister, 2006), promoting inclusivity (Lee & Chan, 2007), and things as simple as just hearing the instructor's voice (Edirisingha et.al, 2007). However, many of the studies have been done at the undergraduate level.

Video casts are just an extension of podcasts, where a video file is created instead of an audio file. The technology requirements for creating and viewing a video cast are more complex for the instructor, the student and the CMP, as are the bandwidth requirements.

However, this is the premise of media richness theory (MRT) as proposed by Daft and Lengl (1986). The students react to the different levels of feedback in different ways, and the general thinking is that students will prefer a richer level of feedback.

1.2 Media Richness Theory

Daft and Lengel originally created a hierarchy consisting of the availability of feedback, the capacity of the medium to transmit multiple cues, the use of natural language and the personal focus on the medium (Shepherd & Martz, 2006). In terms of richness, face-to-face communication is considered to provide the most communication cues, followed in order by video, voice and then text. As an example, assume person A wanted to know how well person B liked a joke that person A had told. In reverse order, person B could send a 'lol' text to person A, person B could call person A and person A could possibly hear the laughter in person B's voice, person A could tell person B in a video call and person A could see person B's reactions, or in a face-to-face meeting person A could see person B's body motions and hear the laughter. In this sense, video and face-to-face provide the best feedback to person A.

2. RESEARCH MODEL

The various feedback modes have an effect on the communication richness, which in turn has an effect on student preferences. Because technology is involved, students want feedback in a form that is easy to use. That is, they don't want to be limited to a particular platform or technology. They also want feedback that gets the point across in an understandable way so that they do not have to guess at what the feedback is saying. This is where the richness of the feedback comes into play. This is shown in the research model as indicated in Figure 1 (Appendix).

2.1 Feedback Modes

The face-to-face feedback mode is the one with which students are most familiar. In the distance environment, this is the mode that is usually absent. The second richest mode is video, and that is typically the least used technology in distance education. Continuing on down the richness spectrum, voice is used more often than video but less than text.

2.2 Information Media

While the various media used by CMP support differing levels of richness, they do so at a cost. Video requires an upgraded computer system and an upgraded internet connection at the location delivering the education. If the video is a stand alone file that will be streamed by the students, the CMP may also need additional technolog(ies).

There are a couple of different ways to provide feedback by voice. The first is via a phone call, and that does not usually require additional technology for either the provider of education or the student. One exception would be if either was utilizing one of the voice over IP (VoIP) solutions, in which case some downloading of software would probably be required, such as Skype. The cost for this is minimal; however this is a synchronous solution and could be difficult if the time zone differences were large enough. The second is via an .mp3 file, or some similar audio file format. These are

typically recordings that are made and are then sent to the students or sent to a central repository where the students download them and listen to them at their leisure.

Text requires the least amount of technology, and probably does not require any new technology on the part of the student, the instructor, the institution providing the education or the CMP. While the ease of use is possibly the highest of the media types, the feedback richness is the lowest.

Because of the definition of distance education, face-to-face communication is the one feedback mode that will not be addressed here.

2.3 Methodology

The subjects were thirty-nine graduate students in an Information Systems online distance education course. The class consisted of fourteen female students and twenty-five male students. All of the graduate students were enrolled in the MBA program at one of the largest online MBA universities in North America. As part of the course makeup, the students were put into groups of five, and all students communicated asynchronously with their group members and with the instructor. Each group turned in a single weekly deliverable that consisted of several typed pages. The assignments varied from week to week, but generally consisted of answering questions from the text, answering questions provided by the instructor and researching topics in information systems that were brought up during that week.

After the assignments were turned in and graded, feedback was given to the groups. Some weeks the feedback was given in .doc format and other weeks the format was given in .mp3 format. The type of format was randomly chosen each week. The feedback was always returned to each group within 24 hours of the due date.

Students were asked to answer the question: "Which type of feedback did you prefer, the .doc or the .mp3 file, and why?" The question given to the students was open-ended in order to allow them to provide additional information and to explain their reasoning.

2.4 Hypothesis

The construct under scrutiny is student perception of feedback and does it change based upon the media type. The literature suggests that students should prefer the audio feedback (.mp3 file format) to the text feedback (.doc file format) because of the richer feedback that it provides. The literature also suggests that the ease of use of the feedback will influence students preference.

This leads to the hypotheses below:

Student feedback preference (audio vs. text)

H1. Students will prefer the audio based feedback over the text based feedback because of the added richness that it provides.

H2. Students will find the text based feedback easier to use.

3. RESULTS

A one proportion z-test was used and the results were significant at the .001 level. H1, students will prefer the audio based feedback, was not supported. H2, students will find the text based feedback easier to use, was supported. The results are shown in table 1 (Appendix). The results were over-whelming. The students preferred the written feedback to the audio feedback. Anecdotal feedback from the students is provided below in the discussion section. This helps to shed some light on these results.

4. DISCUSSION

H1 was not supported as the majority of the students preferred the text based feedback to the audio based feedback. While the statistics in this study are very basic, the student responses provide much richer answers to help explain what may be going on. Of the nine students who preferred the audio feedback, 44% (4/9) said the biggest reason was the ability to multi-task. One respondent wrote "The reason I like this format is because typically when I review the feedback I have just gotten home from work and this format allows me to listen to the feedback while I open mail, check other e-mails, or get my books and computer ready for that nights study." On a similar theme another respondent wrote "I spend an hour to and from work each day, and this audio format is perfect for my iPad or iphone as I am traveling or on the move." The other main theme for the students with a preference for the audio feedback was the added richness it provides. This showed up in two sub themes. The first sub theme was the expected additional richness theme, although with a few variations. One respondent wrote "What I enjoy is the information you convey to us about our answer, what we should have focused on, etc. This can be accomplished in the word document, but hearing you talk about it makes it seem much more real to me. I know that may sound odd." Another respondent wrote "Hearing it makes it more believable."

The second sub theme was a better understanding of the feedback based on the tones and inflections in the feedback. The comments were along the lines of "The written response was fine, but I find that I get more out of the verbal communication, as I can hear when you are really stressing a particular point."

Seventy-four percent (29/39) of the respondents preferred the .doc feedback. Thus, H2 was supported. Again, the responses provide the real information as to what is going on with this. The ease of use theme came across in many of the responses, although there were a few sub themes here as well.

The first sub theme was along the lines of the usefulness of the feedback. Of the students who preferred the text based feedback, 90% (26/29) (67% of the overall users) said the main reason was that it was more useful. One respondent wrote "Also, it was easier to follow the text feedback in terms of re-reading the initial responses after reading a portion of the feedback. The audio file requires pausing the playback between questions, re-reading the response, and then playing the feedback as required." Along a similar vein "But, in terms of pinpointing the comments to a specific question, I prefer the written comments. This makes it very easy to scroll through the document and know which issues you are critiquing and what, specifically, merits a little more thought." Another wrote "For me, written critique is the preferred format. For the most part, it's a time-saver because I can process the information at my own pace." This final response

seems to sum up this theme quite well "you can scan a document multiple times if you're looking for a particular piece of feedback, but must guess where the exact feedback is in an audio file or replay the entire file."

The second sub theme was along the lines of ease of use with technology. While it didn't stop them from accessing the .mp3 file, some students found it wasn't as easy to just click on the file and have a program automatically open it. One respondent wrote "I tend to check my email mostly at work, where it is easier to read a document rather than put on headphones and listen to a response. Also, when I check my email through mobile means, documents are easier to handle." Another student wrote "The speakers on my PC didn't work at first, but I figured it out. The word document always works for me."

4.1 Limitations

While feedback came from the entire class, the n was low at 39 respondents, and more data should be collected. The .mp3 format is a standard audio format and is compatible with most of the audio software on the market today. The students were not asked if their system could handle .mp3 formats (or .doc formats for that matter) and this may have been a confound. However, none of the students responded that they could not open either file format.

A second limitation comes from the file size differences in the two feedback formats. The .doc file sizes were routinely in the tens of thousands of bits range, while the audio files approached 3 meg in size. While the amount of audio feedback was not determined or limited by the file size, this may have had an impact on use.

4.2 Future Research

Further study is needed to try to see why the audio feedback was not as popular as the .doc format. While some students did favor it for all the reasons we would expect given the Media Richness Theory, they were in the minority. One problem students wrote about concerning the audio feedback was that it was not easy to sift through the file to locate a specific point, and/or that it was easier to search through the .doc file. It may be better to provide the students with a separate audio file for each individual question or topic that is assigned. While the student would still have to sift through the individual file to get to a specific point, it would be quicker.

While most CMPs allow instructors and students to post files to a central message area or drop box, not all include a vast array of programs to open audio files. In addition, it appears that students might prefer audio feedback if it could be searched more easily. Such software tools should be incorporated into the technology suite of CMPs. And as bandwidth connections from the CMPs to the students increase, the use of video feedback might pose similar problems in the future.

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APPENDIX

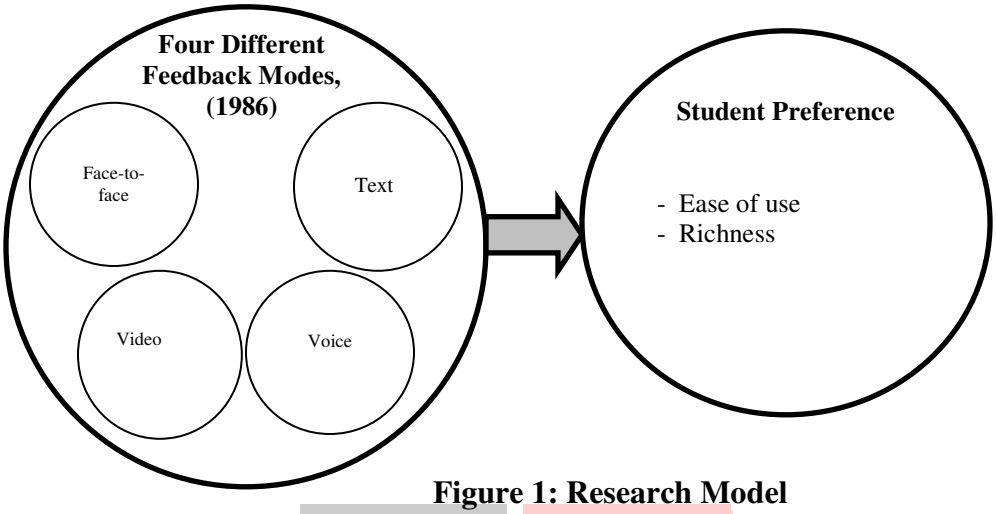

Figure 1: Research Model

Table 1: Feedback method and number of students favoring that method	
Feedback method	Number of students favoring this method
Audio feedback (.mp3 file)	9
Text feedback (.doc file)	29

The numbers do not add up to 39 as one student indicated that they had no preference for either method of feedback.