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ABSTRACT

This paper reports the results of a study conducted with non-IS undergraduate students undertaking an online distance education class. Although the sample size is small and there is some self-selection, it provides some preliminary answers to what such students see as the advantages and disadvantages of online education, whether these perceptions change with experience and to what extent such classes are effective. The study focuses on three main issues: the potential attractiveness (or unattractiveness) of online distance education to such students; the role of student experience in online distance education; and satisfaction with, and effectiveness of, such courses. The results of the study suggest that: some student students see online distance education in a very positive light; that these perceptions don't change with experience; and the learning outcomes can be positive. The distance education survey and follow-up questions are appended. Includes four figures. (Contains 18 references.) (Author/AEF)



IS ON-LINE DISTANCE EDUCATION A VIABLE ALTERNATIVE FOR UNDERGRADUATES? AN EXPERIMENT WITH THE STUDENTS IN GEORGIA, THE PROFESSOR IN AUSTRALIA

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ABSTRACT

This paper uses under-graduate students undertaking an on-line distance education class as the source for the evaluation of such classes. Although the sample size is small and there is some self-selection, it provides some preliminary answers to what such students see as the advantages and disadvantages of on-line education, whether these perceptions change with experience and to what extent such classes are effective. The results of the study reported in this paper suggest that some student students see on-line distance education in a very positive light, that these perceptions don't change with experience and that the learning outcomes can be positive.

INTRODUCTION

Higher education, particularly in the business schools in the US, is facing some interesting demographics—the University of Phoenix (an on-line for-profit university) has become one of the largest markets for business textbook publishers, demonstrating its rapid growth in this field; the US professorate is aging and there will soon be many retirements—at a time when college enrollments will have to grow to deal with the "baby boomlet" (children of baby boomers currently approaching college age); and supply shortages in the information intensive fields are likely to be chronic in the professorate because of the pace of change and the financial rewards available in industry for qualified individuals. Not surprisingly, there is growing and potentially intense interest in alternative course staffing and delivery models among American academic administrators.

The concept of enhancing education by the use of technology, and in particular the opportunity to move to

different modes of delivery, continues to attract the attention of both practitioners and researchers. Importantly, the research is moving into the mainstream professional literature, particularly the IS literature (Alavi. and Leidner, 2001, Picolli, Ahmad, and Ives, 2001). The acceptance of such articles by these leading journals is indicative of the serious view of the research within the IS discipline. It is possible that the IS interest and focus results from the acceptance of research into the use of the technology, or from the expectation that the computer communications technology involved presents less of a barrier to IS students and therefore is closer to the everyday activities of IS academics, or both.

This paper reports the results of a study, conducted using as its base an on-line class of final year non-IS students (with an apparent propensity for on-line distance education) almost completely on-line. It attempts to deal with three main issues.



- The potential attractiveness (or unattractiveness) of on-line distance education to such students
- 2. The role of student experience in on-line distance education
- 3. Satisfaction with, and effectiveness of, such courses

The paper sets out the literature leading to the above issues and poses research questions along the lines of these issues, explains the methodology employed, outlines the data involved (and its limitations), presents a discussion of the results and concludes with general comments on this type of class and the limitations of the study.

BACKGROUND

There have been many calls in the literature for more research into particular areas of distance education. Alavi (1994) sought future studies, which would reduce the potential impact of student interactions by administering the study during different semesters or at different geographic locations (e.g., different campuses). Alavi, Wheeler and Bradley (1995) concluded that it was important to continue the inquiry into the effectiveness of collaborative telelearning environments. They stated that with the declining cost and continued convergence of computing and communication technologies and the subsequent increase in prevalence of networked, multimedia computers, collaborative telelearning would be an increasingly viable educational alternative. They posed several specific questions for future research including:

- 1. How do the learners respond to these new experiences?
- 2. How effective are the new experiences?

The call for further research was recently repeated (Alavi and Leidner, 2001).

A model for the assessment of the possible take-up of online distance education has been proposed (Dick, Case, and Burns, 2001)—the model dealt with both the academic institution and student perspectives. In that paper, which reported the results of a preliminary study primarily aimed at assessing the validity of the model, it was suggested that on-line distance education would only suit some of the students, and only for some of the time. By and large the students (particularly the under-

graduate students) in that study did not want on-line distance education due to a perception that there was more help available on campus, there were distractions at home, concentration periods would not be enhanced, there would be a diminished classroom experience and it would be costly to set up the home to facilitate on-line distance education. However the paper suggested that it might suit a small percentage of mainstream students who have the skills, resources and perhaps the need to not attend campus classes.

While the model put forward by Dick et al. was heavily drawn from the telecommuting literature, (see particularly Belanger, 1999, Gray, Hodson and Gordon, 1993, Mokhtarian and Salomon, 1996, and Tung and Turban 1996), it was noted in the paper that there is considerable support for the issues from the distance education literature—accessibility, convenience, international (or recognised) instructors and a "consumer orientation" (Alavi, Yoo and Vogel, 1997; Emmons, 1999), and the ability to continue education or keep up to date while having only limited time available due to heavy work commitments (Jana, 1999; Boisvert, 2000). Likewise, many of the potential disadvantages—there is broad support for the notion that an educational programme is far more than a curriculum and that there are benefits from a "surround interaction" between the students, the instructor and the lectures. This rich variety of interaction is likely to be lost (Bertagnoli, 2001). Others include not learning the skills to think on one's feet, the absence of support and help, longer to develop a rapport between student and professor and cost issues related to tuition and technology (Emmons, 1999). Attempts to measure satisfaction with distance education have been sporadic, other than the measure of enrolments and the growth in the number of institutions offering some form of distance education. One recent approach using the service industry as a base (Long, Tricker, Rangecroft and Gilroy, 2000) based the assessment largely on immediate application in the work place—not in an invalid measure, but perhaps only one of many.

Recent papers have reported on success—Volery (2001) attempted to relate success with technology, the academic, and the students' previous use of the technology and Stallings (2002), has put forward the need for the institution to be well placed to measure the success of the on-line experiences. Piccoli et al. reported increased self-efficacy by students involved in a virtual learning environment, but dissatisfaction with the learning process. The academic institutions appear



ready to adopt a model where the computer is used as a conduit for teaching and learning (Marold, 2002) and the author points to several "successful" classes measured by student grade and compared to more traditional classes (student satisfaction with the courses is not reported).

One area commented on in much of the literature, but rarely studied, is that of experience with on-line distance education and whether such experience has an influence on perceptions of it (Alavi, 1994). While there is some work (for example Althaus, 1997) on the effects of computer literacy and familiarity with on-line distance education, it seems that many researchers feel that experience with on-line education affects perceptions and may affect the ability of students to undertake education using this form of delivery.

The above literature gives rise to the following research questions:

- 1. What will a group of students who seem to have the propensity for on-line distance education see as the advantages and disadvantages and will they view these in a similar light to the large majority of students?
- 2. Will a respondent's perception of distance education change due to experience in this mode of delivery?
- 3. Will under-graduate students be satisfied with such courses?

METHODOLOGY

A previously developed and validated questionnaire was used as the primary basis for the study. This questionnaire was administered twice to all students in a class, once at he beginning and once at the end of the course. The returned questionnaires were not anonymous, enabling paired sample testing to be performed (a statistically stronger test than independent sample testing, which is normally performed when the individual's responses at different points in time cannot be compared). A copy of the questionnaire maybe found as Appendix A.

As stated above the survey had been validated previously (Dick, 2001)—initial reliability of the instrument in terms of stability was measured for that study by test-retest surveys and in terms of construct

validity by Cronbach alpha scores to determine internalconsistency reliability.

Validity of the measurement instrument was assessed in terms of content validity, (specifically including face validity and sampling validity), empirical validity and construct validity. This methodology is in accordance with generally accepted procedure (Frankfort-Nachmias and Nachmias, 1996). Specific procedures conducted to assess each of these for the current study were:

- Face validity (a necessarily subjective assessment of the instruments' appropriateness) was assessed and achieved by the researcher by using the previously validated study.
- Sampling validity (whether a given population is adequately sampled by the measuring instrument) was provided by the distribution of the survey to all members of a class and by the researcher not following any particular bias in selection of the students to whom to distribute the survey.
- Empirical validity was evaluated both by using measures contained within the survey to check the consistency of results and by comparing some parts of the survey document with another survey run independently (and anonymously) by the School management.
- Construct validity was assessed by means of Cronbach alpha scores.

External validity issues deserve special mention. It will be noted in the next section of this paper (dealing with the data), that there are limitations to the generalisability of the conclusions that can be drawn from the results of the analysis of this data. In particular these relate to the particular characteristics surrounding the students in the class used for the study. Nevertheless it is believed that the study does provide a reliable basis for commenting on the on-line distance education issues as they relate to similar students and courses.

In order to assess the effect of each of the independent variables on the preference for distance education, linear regression was performed on the data. Also a series of non-parametric paired t-tests (Wilcoxan) and was conducted to identify variations in the perceptions and preferences between the different groups of students in the data.



DATA

The data for this study comprised respondents to a survey of on-line distance students undertaking a senior level Information Technology Management course for non-IS majors in the Business School at Georgia Southern University in the United States. The course is compulsory for Business School non-IS majors and some 200 take the course each semester. The on-line class had 38 participants. All of these students were given the opportunity to complete the survey at the beginning and end of the course; an incentive was provided in the form of points for extra credit. In the event, 25 students completed the survey once and 15, twice. The response rates were therefore 56% and 40% respectively. Also, enhanced departmental anonymous course evaluations were used, partly to validate the survey findings and partly to address learning and management issues. 28 students completed these—a 74% response rate.

In the sample of 25, there were 12 males and 13 females, only one student had any prior experience with any form of distance education, 23 were in the 21-25 age group with one in the 26-30 group and one in the 31-40 group. 12 of the respondents indicated they were currently working, either full-time or part-time.

The approach to the selection of the class and to the acceptance in that class deserves some explanation and consideration. It was decided to run the class in an online distance delivery mode after some students had already enrolled in what they assumed would be a traditional class. All of these students were contacted and were advised how it was proposed to run the course and offered the opportunity to join another class if they felt uncomfortable with the method being proposed. The students were also encouraged to discuss any concerns they might have with the instructor. At this stage there were 25 students enrolled. Few discussed the class with the instructor and none withdrew from the class. Other students were then offered the opportunity to enroll in the class, up to maximum of 40 (2 of whom though in the class lists, did not attend any classes and subsequently withdrew).

A further relevant factor was that the class selected for on-line distance delivery was a class scheduled to meet at 5pm on Mondays and Wednesdays. This particular class was chosen for two reasons—it was intended to run "chat" sessions which would take place at the scheduled class times—5pm in the relevant US time

zone is early-mid morning the next day in Australia, where the instructor resided. The time was seen as convenient to both students and instructor. The second factor was that it was believed that a group of undergraduate students who enrolled in a 5pm class would be likely to be attracted to this mode of delivery due to the likelihood of work, family or other commitments.

Finally a word about the class, as the conduct of the class may also be relevant to the perceptions of on-line distance education. The instructor visited Georgia and conducted one face-to-face class in week one of the semester and outlined how the rest of the semester would unfold. All students were encouraged to visit with the instructor on an individual basis, particularly anyone who had some concerns about the use of the technology. About 30% of the students availed themselves of this opportunity. The class was conducted primarily via WebCT and the students had a textbook, a PowerPoint presentation, study notes and an audio file for each week's work. Assessment and deliverables were based on each week the students partaking in a "chat" session, a contribution to a "discussion board", an assignment, and an on-line quiz on that week's prescribed textbook chapter. With the exception of the "chat" session, all of these were asynchronous. Other assessment components included on-line quizzes and a supervised exam conducted on WebCT.

There are obvious limitations to the findings from the data used in this study. These are discussed in more detail at the conclusion of this paper, however it should be noted (as outlined above) that prior research had suggested that on-line distance education would be best suited to only some students, for only some of the time. This was an attempt to determine whether an undergraduate course could be successfully run using students who *prima facie* seemed that they would be receptive to on-line distance education and limiting their exposure to just the one course.

RESULTS AND DISCUSSION

Advantages

Over 90% of the respondents agreed or strongly agreed that being able to choose the time to study and work on assignments was important to them. Other statements with which there was high agreement were that distance education would reduce travel and commuting costs, allow better management of work commitments, enable taking care of dependents, provide flexibility, and that

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fewer distractions in the home meant it allowed them to be productive distance students.

While the overall preference for distance education was neutral among these respondents, regression analysis, running the potential advantages against the preference for distance education, indicated that being able to choose the time for study, managing work commitments and being able to work at home (few distractions) were the predominant variables in that preference— $R^2 = .517$.

The respondents were also asked to rate what they saw as the most important (and least important) potential advantages of distance education. Almost all (95%) respondents rated being able to choose time to study and work on assignments as one of the three most important and 64% chose being better able to manage work commitments. Only 15% rated the latter as unimportant, none rated the former as unimportant.

The picture emerging here indicates that for this group of respondents, distance education provided a sought after alternative to their normal mode of study.

Disadvantages

When considering the potential disadvantages of on-line distance education, most students in this class had no real concerns. They did not see it as difficult to study at home due to less help, motivational problems, etc., they were not concerned about not being able to avail themselves of the resources on campus and did not see obtaining the necessary resources as difficult. They also agreed contact with the instructor was not difficult.

Stepwise regression, running the potential disadvantageous variable against the preference for distance education indicated that being unconcerned about missing out on the available resources was the most prevalent factor ($R^2 = .149$). The students also indicated that they saw the most important potential disadvantages as the diminished classroom experience and missing out on the professional interaction with other students.

Taking the advantages and disadvantages together, it seems that the driving factors in the preference for distance education are $(R^2 = .673.)$:

- Being able to choose the time and place for study,
- Not being concerned about unavailable resources,

- · Being better able to manage work commitments, and
- Fewer distractions at home allowed the student to be productive.

The limitations of the study in terms of the ability to generalise to the student population as a whole are clearly evident here. These students were mostly seniors, and many lived on campus or close to campus. Accordingly it might be expected that they would possess a level of maturity and ability commensurate with that required for such a course and in any case they had to come to campus (and its available resources) for other courses. Nevertheless an objective in conducting this study was to determine what factors might influence this particular type of student. These factors differ markedly from the factors as reported (Dick et al., 2001) for the wider student body.

Do Perceptions Change with Experience?

A series of Wilcoxon Signed Ranks tests (the nonparametric tests were used due to the small sample size and the non-normal distribution of the data) revealed virtually no differences in the perceptions of the students in respect of distance education over the course of the class. Only in one item was there a significant variation (at the .05 level) that of a potential reduction in living costs due to being able to live at home—the respondents were less likely to agree with this at the conclusion of the course than they were at the beginning. This is understandable, the respondents attended only one class via distance and would have continued with their normal living arrangements. It is also worthy of note that only two of the respondents had any previous experience with distance delivery and a series of independent sample t-tests, both parametric and non-parametric revealed no significant variations.

The respondents were asked to indicate their degree of agreement with the statement "I prefer distance education courses over traditional classroom based courses." On a scale of 1-5, where 1 indicated strong agreement and 5 indicated strong disagreement, there was a minor movement in student perceptions during the course. The mean moved from 2.8 (slightly on the "agree" side of neutral) to 3.3 (slightly on the "disagree" side of neutral). The movement was not statistically significant—p = .084, although certainly could be considered as trending in that direction.

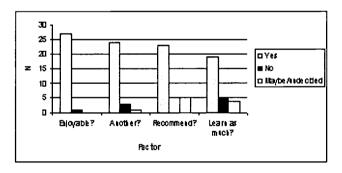


Nevertheless, it seems reasonable to conclude that on the basis of this data, that after taking a distance education class, perceptions of distance education will remain the same as at the beginning. There is a potential qualifying factor here, due to a limitation in the data—by and large the students were very happy with this particular distance education class. Had this not been so, it is possible that some of the perceptions would have changed.

Satisfaction and Effectiveness

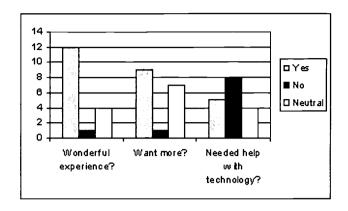
In an attempt to address these issues, a number of factors were considered. In addition, a separate set of data is included in the analysis—that collected anonymously and independently of the instructor by the Department at the time of the final examination. This comprised a standard course evaluation questionnaire, 4 extra questions specifically related to satisfaction issues and 2 open-ended questions that gave the students the opportunity to make general comments. The results of the four open-ended questions are given in Figure 1 below, details of the actual questions and the openended questions are given in Appendix B.

FIGURE 1 **COURSE PERCEPTIONS** (INDEPENDENT EVALUATIONS)



There is considerable similarity between the results for the first two factors in Figure 1 and those in Figure 2-part 6 of the survey form (Appendix A), which was not anonymous. It would appear from this data that the students were less enthusiastic about the course on the forms where the instructor could identify them and more enthusiastic on the anonymous forms. Among other things, this finding gives some weight to the validity of samples from students where often the respondent can be at least partially identified. That aside, it seems there was widespread satisfaction with the course, at least as a learning experience.

FIGURE 2 **COURSE PERCEPTIONS** (SURVEY RESPONSES)



In terms of learning outcomes, there were a number of relevant factors in the department evaluations—these invited the student to compare the course to other similar courses that they had taken. The results of these evaluations are given in Figure 3, but in general terms it seems that for most students the learning outcomes were about the same as for other courses, with the qualification that around 30% of students felt that they learnt more, it was more intellectually challenging and that it was more difficult. Against this, a small percentage (around 5%) felt that they leamt less, were less challenged and that it was less difficult.

The results shown in Figure 3 were compared with the results for other sections of the same course run in that and the subsequent semester. No significant differences were noted. That is, all students taking this course felt the same way about it in terms of effort, learning, challenge and degree of difficulty, regardless of the mode of delivery. There was perhaps an indication in the data that the online group felt slightly more challenged (a mean of 3.4 to 3.1 on a 5 point scale) however this is not considered to be significant given the limitations of data numbers and the question wording.

While not central to the learning issue, the result from the independent evaluation rating the course is given below (Figure 4)—it does indicate general satisfaction but may also be relevant when considering the general findings outlined in this section. It is also worthy of note that in response to the open-ended questions in Appendix B, most commented favourably on their interaction with the instructor and there were very few suggestions put forward for improvements.

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FIGURE 3 LEARNING OUTCOMES (INDEPENDENT EVALUATIONS)

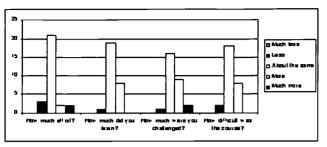
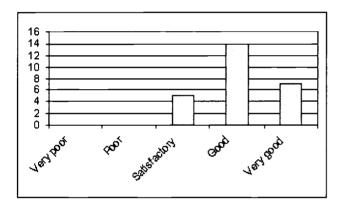


FIGURE 4 HOW WOULD YOU RATE THIS COURSE? (INDEPENDENT EVALUATIONS)



CONCLUSIONS, LIMITATIONS, AND FURTHER RESEARCH

It seems reasonable to conclude that for some undergraduate students on-line distance education is a viable, attractive alternative. In this case, about 20% of the students taking the course were enrolled in the on-line class. Such students see the advantages and disadvantages of this mode of delivery in a different light to the wider student body. It also seems that such students are likely to be more senior, comfortable with the technology and have work or home commitments that make regular attendance at classes difficult or undesirable. On the basis of this study, it is reasonable to state that these perceptions hold up, for at least some time, with experience in such courses.

There is also evidence from this study that such courses can be satisfying and effective, from the student's perspective. Indeed this study provides evidence (self management issues and technological frustrations aside) that academically, the learning experience was very similar to that achieved by those in the more traditional mode *and* to that achieved by these students when undertaking traditional classes, perhaps enhancing its attractiveness to this particular group of students.

There are clear limitations to this study, as mentioned in several places above. These centre around the self-selection and small size of the sample, however given that one of the objectives was to assess such a group of students, the self-selection issue has less impact than might otherwise be the case. Care obviously needs to be taken in extrapolation of these results to the wider student body. A larger sample would improve the reliability of the results, too.

One measure not covered in this study was a comparison of student results with other students taking the course. It was felt that different instructors, different students and the small sample size would all work against meaningful findings, however it is suggested that in a further study this would be a useful comparison. Ideally, the same instructor would take more than one class, some (but not all) in on-line distance delivery mode. Results could then be compared across classes and with the student's results in other subjects.

Another area for further work relates to the role of the instructor—the effort involved, both in setting up the course/s, the time and work involved in dealing with queries and marking by distance, the administration of quizzes and examinations and the instructors' perceptions of the success of the course. This work is most likely to involve a series of case studies, as there are many different models of on-line distance education in use, which would cloud findings and make analysis difficult.

This study has taken a small step along the road of student responses to, and satisfaction with, such courses—there is still a long way to go.



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APPENDIX A DISTANCE EDUCATION SURVEY

l. Pleas	se indicate the extent to which you agree that the following potential ad	Strong				Strongly -disagree
a	Distance education allows me to reduce travel and commuting costs.	agree				-disagree
a b	Distance education allows are duction in living costs due my ability	,		_		-
Ü	to live at home, not on campus.		□2	□3	□4	□5
c	Distance from home would make class attendance on campus	- 1	□2	□3	□4	□5
_	impossible.		-2	_3		-5
d	I am better able to manage work commitments by not being required		□2	□3	□4	□5
е	to attend class on campus. Distance education enables me to complete class work if disabled or	_	_	_		
	taking care of dependents.	ום	□2	□3	□4	□5
f	I find the campus environment intimidating or undesirable.		□2	□3	□4	□5
g	Personal reasons such as family, flexibility make distance education	- 1	□2	□3	□4	□5
	attractive to me.	•	_	_		-
h	Fewer distractions for me at home allows me to be a productive	□1	□2	□3	□4	□5
i	distance education student. Being able to choose the time to study and work on assignments is					
•	important to me.		$\Box 2$	□3	□4	□5
	1 st 2 nd					
2. Pleas you:	2 nd 3 rd se indicate the extent to which you agree that the following potential dis			tance ed	u catio	
	2 nd 3 rd se indicate the extent to which you agree that the following potential dis	Strong	ly			n apply to Strongly -disagree
	2 nd 3 rd se indicate the extent to which you agree that the following potential distribution of the second of	Strong	ly			Strongly
you:	2 nd 3 rd se indicate the extent to which you agree that the following potential distributions and it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions.	Strong agree	ily -> -> -> □2	-> -> - □3	>-> -> □4	Strongly -disagree
you: a b	2 nd 3 rd se indicate the extent to which you agree that the following potential distributions of the second of	Strong agree	ly -> -> -> □2 □2	-> -> -3 -3	>-> -> □4 □4	Strongly -disagree □5
you:	2 nd 3 rd se indicate the extent to which you agree that the following potential distributions and it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions.	Strong agree	ily -> -> -> □2	-> -> - □3	>-> -> □4	Strongly -disagree
you: a b	2 nd 3 rd se indicate the extent to which you agree that the following potential distributions and the extent to which you agree that the following potential distributions are solved in the extent to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment	Strong agree	ly -> -> -> □2 □2 □2	-> -> -3 -3 -3 -3	>-> ->	Strongly -disagree □5 □5 □5
you: a b c	2 nd 3 rd se indicate the extent to which you agree that the following potential distributions and it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment for my home would be expensive for me.	Strong agree	ly -> -> -> □2 □2	-> -> -3 -3	>-> -> □4 □4	Strongly -disagree □5
you: a b c	2 nd 3 rd se indicate the extent to which you agree that the following potential distributions and the extent to which you agree that the following potential distributions are solved in the extent to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment	Strong agree	ly -> -> -> □2 □2 □2	-> -> -3 -3 -3 -3	>-> ->	Strongly -disagree □5 □5 □5
you: a b c	2 nd 3 rd See indicate the extent to which you agree that the following potential distributed in the following potential distributed	Strong agree	ly	-> -> -> - -3 -3 -3 -3	>-> ->	Strongly -disagree
you: a b c d	and 3rd See indicate the extent to which you agree that the following potential disconsistent of the extent to which you agree that the following potential disconsistent of the extent to which you agree that the following potential disconsistent of the extent of the	Strong agree	ly	-> -> -> -3	>-> ->	Strongly -disagree □5 □5 □5 □5
you: a b c d	I would find it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment for my home would be expensive for me. I would miss out on the extra-curricular activities available on campus. Missing out on the professional interaction with one's fellow students would be a concern to me. There would be a diminished classroom experience—less	Strong agree	ly	-> -> -> - -3 -3 -3 -3	>-> ->	Strongly -disagree
you: a b c d e f	I would find it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment for my home would be expensive for me. I would miss out on the extra-curricular activities available on campus. Missing out on the professional interaction with one's fellow students would be a concern to me. There would be a diminished classroom experience—less discussion, interaction with professors.	Strong agree	Sily	-> -> -> -> -> -> -> -> -> -> -> -> -> -	>-> ->	Strongly -disagree
you: a b c d e	I would find it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment for my home would be expensive for me. I would miss out on the extra-curricular activities available on campus. Missing out on the professional interaction with one's fellow students would be a concern to me. There would be a diminished classroom experience—less	Strong agree	Sily	-> -> -> -3 -3 -3 -3 -3 -3 -3 -3	>-> ->	Strongly -disagree
you: a b c d e f	I would find it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment for my home would be expensive for me. I would miss out on the extra-curricular activities available on campus. Missing out on the professional interaction with one's fellow students would be a concern to me. There would be a diminished classroom experience—less discussion, interaction with professors.	Strong agree	Sily	-> -> -> -> -> -> -> -> -> -> -> -> -> -	>-> ->	Strongly -disagree
you: a b c d e f	I would find it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment for my home would be expensive for me. I would miss out on the extra-curricular activities available on campus. Missing out on the professional interaction with one's fellow students would be a concern to me. There would be a diminished classroom experience—less discussion, interaction with professors. I find it very difficult to contact the instructor.	Strong agree	Sily	-> -> -> -> -> -> -> -> -> -> -> -> -> -	>-> ->	Strongly -disagree
you: a b c d e f	I would find it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions. I feel that there is better help for me available on campus. I would miss out on benefits available on campus—resources, possible employment etc. The cost of procuring the necessary distance education equipment for my home would be expensive for me. I would miss out on the extra-curricular activities available on campus. Missing out on the professional interaction with one's fellow students would be a concern to me. There would be a diminished classroom experience—less discussion, interaction with professors. I find it very difficult to contact the instructor.	Strong agree	Sily	-> -> -> -> -> -> -> -> -> -> -> -> -> -	>-> ->	Strongly -disagree



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3.	Thinking about your academic work, please indicate your degree of agreement with the following statements as they
	typically concern course related tasks you have to complete (study, assignment work, exam preparation etc.):

		Strongly	/		S	trongly
		agree -	> -> ->	-> -> ->	>-> -> -	disagree
a	The final product of the tasks that I am assigned typically involves the completion of many different components.	1	□2	□3	□4	□5
b	My tasks often require me to work with fellow students.	□1	□2	□3	□4	□5
С	Sometimes the task deliverables change over the duration of the assignment (e.g. the instructor adds or deletes one or more components).	1	□2	□3	□4	□5
d	Tasks I am given are not always clear and may be interpreted in different ways.	1	□2	□3	□4	□5
е	I am often uncertain about what to do to complete the final product.	□ 1	□2	□3	□4	$\Box 5$
f	The tasks I am assigned are often dependent on at least one other student completing his work first.	- 1	□2	□3	□4	□5
g	The task deliverables are clear, but can be accomplished in a number of ways.	□1	□2	□3	□4	□5
h	I would typically rather work on my own, than with other students.	□1	□2	□3	□4	□5
i	The tasks I am assigned require minimal resources (e.g. software, library, etc.).	1	□2	□3	□4	□5
j	The tasks I am assigned allow me to work at my own pace.	□ <u>1</u>	□2	□3	□4	□5
k	Assigned tasks require long periods of concentrated attention.		□2	□3	□4	□5
1	Distance education enables me to concentrate on course related tasks for long periods.	1	□2	□3	□4	□5
m	"Due dates" for tasks assigned are clearly stated.	□1	□2	□3	□4	□5
n	There is a need for a considerable degree of communication with my fellow students.	- 1	□2	□3	□4	□5
O	There is a need for a considerable degree of communication with academic staff.	- 1	□2	□3	□4	□5

4. Thinking about your ability to study via distance education, please indicate your degree of agreement with the following statements:

		Strongly agree ->		-> -> ->	Stro	ngly gree
a	I am capable of making good decisions about the tasks I am assigned.	1	□2	□3	□4	□5
b	I know where to get the relevant information I need to complete the assigned tasks.	□ 1	□2	□3	□4	□5
c	I have no difficulty determining when I should seek advice.	Πį	□2	□3	□4	□5
d	I am good at self management, possessing the motivation, time management, etc. that is needed to deliver quality work on time.	□ 1	□2	□3	□4	□5
e	I have the computing and communications resources I need to be an effective distance education student.	□ 1	□2	□3	□4	□5

5. Please indicate the extent of your agreement with the following statements:

	, ,	Strongl agree	y -> -> -> -	.> ->	->->-	Strongly disagree
a	Distance education is of lesser quality than traditional class-room-based campus education.	1	□2	□3	□4	□5
b	I only participate in distance education because I can't attend campus classes.	□ 1	□2	□3	□4	□5
С	The tasks associated with my course are suitable for the distance education environment.	- 1	□2	□3	□4	□5
d	I should not have to pay as much for distance education as for traditional campus based education.	1	□2	□3	□4	□5



			Strongly				Strongly
			agree ->	-> -> -	> -> ->-	>->-	disagree
	е	I would encourage most professionals to participate in distance education.	1	□2	□3	□4	□5
	f	Instructors should not assign the same tasks to distance based students as they assign to campus based students.	- 1	□2	□3	□4	□5
	g	Distance education courses are designed with the distance student in mind.	1	□2	□3	□4	□5
	h	I believe I have the skills and ability to be a successful distance education student.	- 1	□2	□3	□4	□5
	i	Distance education is attractive to Universities because it provides additional revenue without the need for additional resources.	- 1	□2	□3	□4	□5
	j	I prefer distance education courses over traditional classroom based	1	□2	□3	□4	□5
	k	courses. Distance education is an acceptable instructional delivery system, but it falls short of the traditional classroom experience.	0 1	□2	□3	□4	□5
6.	Thi a b c	nking specifically about the MGNT 4130 course you are now doing: This course has been a wonderful experience for me. I wish I could do/have done more courses in this way. I would have liked more help with the "technology."	01 01 01	□2 □2 □2	□3 □3 □3	□4 □4 □4	□5 □5 □5
The	bes	t things about this course were:					
The	folle	owing areas need improvement:					
7.	Plea	ase provide the following general information about yourself:					
	l.	Are you: □ Male □ Female					
	2.	In which age group are you? □ 20 or younger □ 21 - 25 □ 26 - 30 □ 31 - 40 □ 41 - 50 □ 51 - 60 □ over 60					
	3.	How many people in your household (including yourself) fall into each Under 2 years old 2 - 5 years old 6 - 15 years of 16 - 20 years old 21 - 65 years old over 65 years		wing ag	ge groups	:	
4.	Hov	w many courses have you taken by distance education (before this one)?	0 🗆 1	2 🗆 2	~ 2	Пз	



APPENDIX B

- 1. Did you enjoy your distance learning experience?
- 2. Would you take another course that was taught by distance learning?
- 3. Would you recommend a similar distance learning course to a friend?
- 4. Do you feel that you learned as much as if you were in a traditional classroom?
- 1. What did you like best about this instructor/course?
- 2. How could this instructor/course be improved?



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