

Online Teaching as Perceived by Faculty: A Case Study of Indiana State University

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Abstract

While online teaching is growing in popularity and enrollment numbers, little is known regarding the perceptions of faculty who teach online courses as well as faculty who do not. This research study is based on a survey administered to Indiana State University (ISU) faculty in the U.S. Its purpose is to explore the perceptions of faculty regarding online teaching. The principal question involved in the survey is “what would inhibit you to participate in distance education?”. Fifteen statements needed to be rated by the respondents according to their perspectives. The results show that 53% of the respondents have a positive attitude towards online teaching at ISU. Other results show that most of the instructors were concerned about the quality of students as well as the faculty workload.

Abstrak

Pengajaran atas talian berkembang dari segi popularitinya dan juga bilangan pendaftaran, bagaimanapun sedikit diketahui berkaitan dengan persepsi fakulti yang mengajar kursus-kursus atas talian begitu juga fakulti yang tidak mengajar kursus-kursus ini. Kajian penyelidikan ini berasaskan soal-selidik yang diedarkan kepada fakulti Indiana State University (ISU) di Amerika Syarikat. Tujuannya ialah untuk meninjau persepsi fakulti berkaitan pengajaran atas talian. Soal asas dalam soal selidik ialah “Apakah yang menghalang anda untuk melibatkan diri dalam pendidikan jarak jauh?” Lima belas kenyataan perlu diberi markah oleh

responden mengikut perspektif masing-masing. Dapatan menunjukkan 53% daripada responden mempunyai atitud yang positif terhadap pengajaran atas talian di ISU. Keputusan-keputusan lain menunjukkan bahawa pelajar-pelajar bimbang terhadap kualiti pelajar dan juga beban tugas fakulti.

Introduction

The notion that learning only takes place in face-to-face environments has since been challenged and overtaken by the use of the internet and network technologies to provide a means of communication to learners wherever they are situated. As the internet becomes a major factor in education, higher education in the US is increasingly turning to distance education technologies to deliver the curriculum at all levels (El Mansour, 2006).

To stay competitive with similar institutions, Indiana State University (ISU) accumulated a long history of delivering the curriculum at all levels via distance education. In spring 2007 enrollments in ISU semester-based distance courses totalled 4,007 at the seven day count. A record high, and a 5.2% increase over Spring 2006 enrollments of 3,808 (Interaction, 2007). In fall 2005 there were 678 classes taught online. That number increased to 762 classes in the Spring of 2006. The courses at ISU are offered using three modalities: Face-to-face, video/television network, and the internet. Some courses are delivered face-to-face in a lab classroom to students registered as on campus-students as well as to students who use video/television network via satellite technologies from other Indiana sites. The course material is then posted on blackboard, an online course management platform for all the students to use.

Background of the Study

As many instructors continue to expand their traditional delivery methods (lecture, laboratory, face-to-face discussion) to include educational options ranging from web-based course supplements to complete delivery of courses online (Freeman & Field, 2004), issues of instructional quality continue to be of concern.

This study grew out of discussions that the investigators had with faculty regarding time spent preparing and posting course content, posting and grading assignments and papers, posting comments and answering student responses to weekly lectures, supervising and participating in chat rooms, responding to individual student's concerns. Furthermore, there was unanimous agreement that teaching online courses requires more time than teaching face-to-face. This observation was also supported.

Holt (2005) in a study that compared faculty time requirements in online and traditional course formats found that faculty time requirements to deliver an online course took significantly more time when compared to a traditional course regardless of employment status, academic rank, course discipline and faculty gender. Several authors also agreed that web-based courses require more time and effort from faculty in comparison with classroom courses of comparable size, content, and credit (Visser, 2000; Rockwell et al., 1999).

Research also suggested that faculty as a whole see internet delivery of classes as a good thing. Researchers also admitted that many, if not most, faculty lack the skills necessary to incorporate it in an effective way. Many teachers have had no prior experience with this method of teaching and the only solution offered to them in most cases was in-service training (Wonacott, 2001). Among the influences to faculty's resistance to teach distance education courses were: a perceived lack of institutional support and training as well as lack of technical training (Clark, 1993). Regarding the online teaching, the workload increases with the increase of the number of students. According to Dibiase et al. (2005) an increase from 18 students in a class to 49 students increased course-related workloads from 47.5 hours to 116.7 hours.

Training at ISU

Indiana State University, through the Center for Instruction, Research, and Technology (CIRT), offers different ways for faculty to develop themselves and increase their competencies in areas of teaching online. These programmes are offered in different formats, to help meet the busy schedules of everyone (CIRT, 2006). One-on-one training is one of the formats designed by the CIRT staff to provide consultations to help faculty with a variety of topics.

Instructors have the choice of signing-up for the topic of their choice (CIRT, 2006). Self-study Tutorials and Computer-based software are also available when there is no time to attend an instructor-led class. The faculty picks the module they want to learn or they may choose an entire course (CIRT, 2006). The training is offered at ISU on a voluntary basis (CIRT, 2006).

The Study

The study sought to participate in the global discussions regarding distance education as perceived by faculty. The purpose of the study was to provide insights for faculty regarding the teaching of distance education courses.

This study was based on a survey administered to Indiana State University faculty. Its purpose was to document the perceptions of faculty regarding the following questions:

- What would inhibit faculty from participating in distance education?
- How much time is spent in preparation of traditional classes?
- What is the average amount of time spent weekly for preparation of online classes?
- How many faculty members have had training? (e.g. technology, design of delivery, etc.)
- Is faculty interested in more online training programmes?
- Should ISU reward faculty for being involved in distance education?

These questions grew out of discussions with some faculty members at Indiana State University. Their support for the study was that the perceptions of the faculty would affect the present and future directions of online education at ISU.

Participants

The participants of this study were tenured, tenure-track, and adjunct faculty at Indiana State University. The participants were asked to participate in an online survey. Their participation was voluntary and confidential. The participants were of different ages, genders, and national origins. They consisted of professors, associate professors, assistant

professors, and adjuncts who were teaching traditional courses, online courses or hybrid courses (combination of traditional course and online course).

Procedure

The survey was an adaptation of the survey designed by Catherine Schifter, faculty at Temple University. The survey was already validated. She granted the researchers permission to use her survey as a tool for gathering data. The survey was conducted at Indiana State University. As of Fall 2006 there was a total of 620 instructors. Out of this number a total of 184 (29%) responded to the survey.

Out of this number an average of 90 faculty members responded. The reason for this low number is that respondents did answer some questions and chose not to answer others. The data collected from an average of 90 faculty members was used for the analysis. The survey questions were designed to gather information in order to develop an understanding of what ISU faculty perspectives were regarding online teaching. The researchers hope to incite suggestions on where distance education should endeavor at ISU. The survey was administered as an online web form. All responses are confidential. Subjects were not asked to submit their name. The information provided is kept under lock and key for three years and only used for this research. The demographic information was collected to examine and determine trends in the faculty.

Results and Discussions

The survey "Online Teaching as perceived by the ISU Faculty" was conducted at Indiana State University. The survey was conducted for a total of one hundred and eighty four instructors. Out of this number an average of fifty percent of the faculty responded. The number of respondents to each question varied from 85 to 94 respondents. This is explained by the fact that some respondents choose not to answer some questions. The results are presented in two parts: Demographics and Inhibiting factors.

Demographics of the Respondents

Five participants who answered were under the age of 30 years old. 32 were between the ages of 31 and 45 years old, 48 were between the ages of 46 and 60 years old of age, and nine were 60 years old or above. It is interesting to note in this survey that female instructors participated more actively compared to the male instructors. Out the 94 participants, more than 50% of the respondents (55) were females compared to 39 male participants.

The study revealed that 19 participants out of 85 respondents were full-time professors (10.3%), twenty instructors were associate professors (10.9%), twenty six were assistant professors (14.1%) and twenty were adjunct professors (10.9%). Seventy four participants who answered had between 0 and 10 years of experience as instructors. Twenty five of the instructors had an experience of eleven to twenty years. Ten had an experience between 21–40 years. Out of 94 respondents, only 41 instructors had taken online courses personally (43.6%). Fifty three instructors had never attended any online courses in their career (56.4%). See Figure 1.

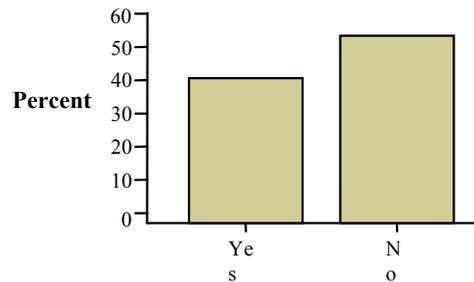


Figure 1 Percentages of the instructors who took online courses

On the contrast, sixty four instructors were teaching distance education courses (68.1%). Thirty instructors were not teaching online courses (31.9%). See Figure 2.

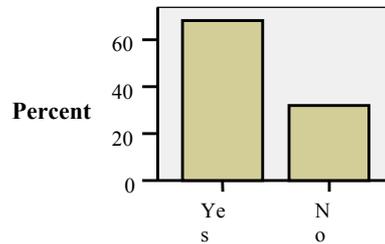


Figure 2 Percentages of the instructors who were teaching online courses

Inhibiting Factors

Faculty was asked to rate the extent to which they agree the factors listed on the online survey would inhibit their decision to continue participating in distance education. To answer the question: What would inhibit you to participate in distance education? The respondents were given a survey of fifteen statements to be rated on a Likert scale from strongly agree (5) to strongly disagree (1). The following is an analysis of the fifteen statements (factors).

Analysis

To analyse the data related the 12 statements that describe inhibiting factors, the confidence interval was used at the level of 0.05. Confidence interval for the population mean was more informative than the simple results. It provided a range of plausible values (lower and upper limits) within which the mean may lay. In this study, the interval was calculated at a 95% level for the fifteen statements which are mentioned below.

These limits were calculated by using the length of the period in the measurement scale. The Likert scale used in the study included five levels: strongly disagree, disagree, undecided, agree, and strongly agree. Each level of the instrument was assigned a number in the following way: strongly disagree was coded 1, disagree 2, undecided 3, agree 4, and strongly agree 5. The length of the period between any one level and the

level that came immediately before it or after it was 1. For example, the length of the period between the first level (strongly disagree) and second level (disagree) was one ($2 - 1 = 1$).

The length of the period between the second level (disagree) and the third level (undecided) was also one ($3 - 2 = 1$). The same calculation applies to the other remaining levels. The length of the period was calculated for the purpose of determining the real limits for the Likert scale. This was done by dividing the length of the period, which was one by two (lower and upper limits) of the Likert scale. The next step was to subtract the result, which was 0.5 from the lower level ($1 - 0.5 = 0.5$), and added the same result to the last level ($5 + 0.5 = 5.5$). These calculations resulted in finding the real limits of the Likert scale. These limits ranged from 0.5 to 5.5.

In addition, to get a clearer picture, it was necessary to increase the levels of the scale to be more than five (statistically, an increase in the number of scale levels yields a clearer picture of the results). As a consequence, the increased levels of the scale to six levels were: very bad (VB), bad (B), acceptable (ACC), good (G), very good (VG), and excellent (EX).

The new length period was calculated by dividing five (the length period of the real limits) by six (the new number of levels). The obtained result was 0.83. The new boundaries were then calculated by adding 0.83 to each level as indicated in Table 1. Then the confidence interval obtained statistically by the SPSS program, was used on the new measurement to demarcate the level for each statement of this study.

Table 1 Lower and upper limits of the new scale

Lower Limit	Operation	Upper Limit	Level status
0.50	$0.50 + 0.83$	1.33	Very Bad (VB)
1.34	$1.34 + 0.83$	2.16	Bad (B)
2.17	$2.17 + 0.83$	2.99	Acceptable (ACC)
3.00	$3.00 + 0.83$	3.82	Good (G)
3.83	$3.83 + 0.83$	4.65	Very Good (VG)
4.66	$4.66 + 0.83$	5.50	Excellent (EX)

The principal question involved in the survey was “What would inhibit you to participate in distance education?”. Fifteen statements needed to be rated by the respondents (Appendix):

Concern about Faculty Workload

The confidence interval for this statement was located between the level of “good” and “very good”. The Mean (M) of 3.69 and Standard Deviation (SD) of 1.380 indicated that most of the respondents supported this statement (Table 2). It was clear that most of the instructors were concerned about the faculty workload as an inhibitor factor in participating in online teaching.

Lack of Professional Prestige

The confidence interval for this statement was located between the levels of “bad” and “acceptable”. The Mean of 2.20 and SD of 1.351 indicated that most of the respondents did not support this statement (Table 2). Most of the instructors did not agree that lack of professional prestige inhibited them from participating in the distance education.

Time to Prepare for Online Classes

The confidence interval for this statement was located in the level of “good”. The Mean of 3.43 and SD of 1.392 indicated that most of the respondents supported this statement (Table 2). Most of the instructors perceived time to prepare for the online classes as an inhibitor factor.

Lack of Support and Encouragement from Departmental Colleagues

The confidence interval for this statement was located in the level of “acceptable”. The Mean of 2.51 and SD of 1.359 indicated that only half of the respondents were supportive of this statement (Table 2). From the result it can be seen that support and encouragement from the department to participate in distance education was apparent.

Lack of Technical Background

The confidence interval for this statement was located between the levels of “bad” and “acceptable”. The Mean of 2.29 and SD of 1.327 indicated that more than half of the respondents were against this statement (Table 2). Almost half of the instructors did not agree that due to lack of technical background inhibited them from participating in the distance education.

Lack of Support and Encouragement from Dean or Chair

The confidence interval for this statement was located between the levels of “bad” and “acceptable”. The Mean of 2.24 and SD of 1.352 indicated that most of the respondents did not support this statement (Table 2). From this result, it was known that there was a good support and encouragement from the dean or the chair of a department for the online teaching.

Lack of Institutional Support

The confidence interval for this statement was located in the level of “acceptable”. The Mean of 2.43 and SD of 1.359 indicated that most of the respondents were against this statement (Table 2). From the confidence interval, it can be concluded that the institution supported the instructors in participating in online teaching.

Concern About Quality of Courses

The confidence interval for this statement was located between the levels of “acceptable” and “good”. The confidence interval was located almost completely in the level of “good”. The Mean of 3.25 and SD of 1.554 indicated that most of the respondents supported of this statement (Table 2). Most of the instructors were worried about the quality of the courses.

Lack of Technical Support by the Institution

The confidence interval for this statement was located in the level of “acceptable”. The Mean of 2.49 and SD of 1.336 indicated that almost only half of the respondents were supportive of this statement (Table 2). It can be seen from the response that the institution almost met with all the needs required for the distance education technically.

Less Time for Departmental Research

The confidence interval for this statement was located between the levels of “acceptable” and “good”. The Mean of 2.98 and SD of 1.492 indicated that most of the respondents were supportive of this statement (Table 2). The response rate to this statement indicated that most of the instructors felt that the department should give them much time for doing the research.

Lack of Salary Increase

The confidence interval for this statement was located between the levels of “acceptable” and “good”. The Mean of 3.07 and SD of 1.452 indicated

that most of the respondents were supportive of this statement (Table 2). From the result it can be seen that most of the instructors felt there was a lack of increase in their salary.

Lack of Momentary Support for Participation (e.g., stipend, overload)

The confidence interval for this statement was located between the levels of “acceptable” and “good”. But the confidence interval was totally leaning towards the level of “good”. The Mean of 3.28 and SD of 1.438 indicated that most of the respondents were supportive of this statement (Table 2). Most of the instructors felt that they were not given good support for their participation in the online teaching.

Lack of Credit Toward Tenure and Promotion

The confidence interval for this statement was located between the levels of “acceptable” and “good”. But the interval was totally leaning towards the level of “acceptable”. The Mean of 2.73 and SD of 1.512 indicated that more than half of the respondents were supportive of this statement (Table 2). From this result it can be seen that the statement “lack of credit toward tenure and promotion” could be one of the reasons inhibiting instructors from distance education.

Concern About Quality of Students

The confidence interval for this statement was located between the levels of “acceptable” and “good”. The Mean of 3.03 and SD of 1.434 indicated that most of the respondents supported this statement (Table 2). Most of the instructors were concerned about the quality of students.

Shortage of Students

The confidence interval for this statement was located between the levels of “acceptable” and “good”. The confidence interval was located almost completely in the level of “good”. The Mean of 2.83 and SD of 1.479 indicated that more than half of the respondents supported this statement (Table 2). Budget cuts like shortage of students was also one of the reasons for inhibition of the instructors participating in online teaching.

Table 2 Means and standard deviations for the fifteen statements and their confidence intervals

Q	M	SD	SE	Confidence Interval	EX	VG	G	ACC	B	VB
					4.66– 5.5	3.83– 4.65	3.00– 3.82	2.17– 2.99	1.34– 2.16	0.5– 1.33
1	3.69	1.380	0.145	3.97 - 3.41						
2	2.20	1.351	0.142	2.48 - 1.92						
3	3.43	1.392	0.146	3.72 - 3.14						
4	2.51	1.359	0.143	2.79 - 2.23						
5	2.29	1.327	0.139	2.56 - 2.02						
6	2.24	1.352	0.142	2.52 - 1.96						
7	2.43	1.359	0.142	2.71 - 2.15						
8	3.25	1.554	0.165	3.57 - 2.93						
9	2.49	1.336	0.140	2.76 - 2.22						
10	2.98	1.492	0.158	3.29 - 2.67						
11	3.07	1.452	0.154	3.37 - 2.77						
12	3.28	1.438	0.152	3.58 - 2.98						
13	2.73	1.512	0.159	3.04 - 2.42						
14	3.03	1.434	0.151	3.33 - 2.73						
15	2.83	1.479	0.157	3.14 - 2.52						

The survey also asked the participants “Have you had formal training for distance education instruction?”. Forty six answered yes, while forty nine answered no. When asked “Where did you receive the training?”. Fifty three answered the question; forty one had training in blackboard, one had picked information up on it throughout the years, and one was taught by a graduate student.

When asked “How much time do you spend preparing for one online class per week?”. The total preparation hours for all 60 respondents were 600 hours. The average was 11.33 hours per class preparation.

When asked “How much time in hours you spend in preparation of one traditional class per week?”. Ninety one responded, with a total of 608 preparation hours, averaging 7.41 hours for class preparation per traditional class. The results of this study showed that the average time for preparation of online classes at ISU, is 3.92 hours more than for traditional class preparation.

Appendix

What would inhibit you to participate in distance education?
5-strongly agree to 1-strongly disagree. Table #1

5	4	3	2	1
Concern about faculty workload				
<u>35</u> 34%	<u>22</u> 21%	<u>17</u> 17%	<u>5</u> 5%	<u>12</u> 12%
Lack of professional prestige				
<u>6</u> 6%	<u>13</u> 13%	<u>17</u> 17%	<u>11</u> 11%	<u>43</u> 42%
Time to prepare for online class				
<u>25</u> 24%	<u>27</u> 26%	<u>14</u> 14%	<u>12</u> 12%	<u>13</u> 13%
Lack of support and encouragement from departmental colleagues				
<u>10</u> 10%	<u>12</u> 12%	<u>21</u> 20%	<u>18</u> 17%	<u>29</u> 28%
Lack of technical background				
<u>8</u> 8%	<u>11</u> 11%	<u>15</u> 15%	<u>22</u> 21%	<u>35</u> 34%
Lack of support and encouragement from dean or chair				
<u>9</u> 9%	<u>8</u> 8%	<u>17</u> 17%	<u>18</u> 17%	<u>38</u> 37%
Lack of technical support provided by the institution				
<u>9</u> 9%	<u>13</u> 13%	<u>18</u> 17%	<u>19</u> 18%	<u>32</u> 31%
Concern about quality of courses				
<u>26</u> 25%	<u>21</u> 20%	<u>12</u> 12%	<u>9</u> 9%	<u>21</u> 20%
Lack of technical support provided by the institution				
<u>10</u> 10%	<u>11</u> 11%	<u>21</u> 20%	<u>21</u> 20%	<u>28</u> 27%
Less time for departmental research				
<u>19</u> 18%	<u>17</u> 17%	<u>19</u> 18%	<u>11</u> 11%	<u>23</u> 22%
Lack of salary increase				
<u>18</u> 17%	<u>20</u> 19%	<u>23</u> 22%	<u>6</u> 6%	<u>22</u> 21%
Lack of monetary support for participation (e.g., stipend, overload)				
<u>21</u> 20%	<u>26</u> 25%	<u>17</u> 17%	<u>7</u> 7%	<u>18</u> 17%
Lack of credit toward tenure and promotion				
<u>15</u> 15%	<u>18</u> 17%	<u>15</u> 15%	<u>12</u> 12%	<u>30</u> 29%
Concern about quality of students				
<u>18</u> 17%	<u>19</u> 18%	<u>21</u> 20%	<u>12</u> 12%	<u>20</u> 19%
Budget cuts – Shortage of teachers				
<u>16</u> 16%	<u>16</u> 16%	<u>20</u> 19%	<u>11</u> 11%	<u>26</u> 25%

Summary and Implications

While online teaching is growing in popularity and enrollment numbers, little is known regarding the perceptions of faculty who teach online courses as well as faculty who do not. Today's educational institutions must pay more attention to their faculty's perceptions of online teaching in order to stay competitive in the educational market as many university have already embraced online teaching and learning.

This study will constitute an invaluable feedback to take into account in the process of making decisions towards the future of online teaching at ISU and at other higher education institutions. This information is designed to; dispel some of the myths regarding online teaching, giving real perspectives of faculties of a higher education institution (Indiana State University), and to generate thoughts, ideas for the future direction of distance education.

Clearly the results showed that 53% of the respondents had a positive attitude towards online teaching at ISU. Only 16% had a negative attitude towards online teaching. ISU and online teaching has the chance to win over the 25% that were neutral. This can be a new target study for research in the future to find out why they are neutral and what can be done to change their attitudes towards participation, and creativity in this area. In addition the replication of the study at other universities will yield more valid and reliable results.

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