

12-2013

INSTRUCTOR TIME REQUIREMENTS TO DEVELOP AND TEACH ONLINE COURSES

Lee A. Freeman

Follow this and additional works at: <http://aisel.aisnet.org/siged2013>

Recommended Citation

Freeman, Lee A., "INSTRUCTOR TIME REQUIREMENTS TO DEVELOP AND TEACH ONLINE COURSES" (2013). *2013 Proceedings*. 8.
<http://aisel.aisnet.org/siged2013/8>

This material is brought to you by the SIGED: IAIM Conference at AIS Electronic Library (AISeL). It has been accepted for inclusion in 2013 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

INSTRUCTOR TIME REQUIREMENTS TO DEVELOP AND TEACH ONLINE COURSES

Lee A. Freeman
Department of Management Studies
University of Michigan-Dearborn
lefreema@umich.edu

Abstract:

How much time does it take to teach an online course? Does teaching online take more or less time than teaching face-to-face? Instructors, department chairs, deans, and program administrators have long believed that teaching online is more time-consuming than teaching face-to-face. Many research studies and practitioner articles indicate instructor time commitment as a major inhibitor to developing and teaching online courses. However, while they identify the issue and provide possible solutions, they do not empirically measure actual time commitments or instructor perceptions when comparing online to face-to-face delivery and when comparing multiple iterations of delivery. The results of this study show distinct differences in developing online courses relative to developing face-to-face courses and distinct differences in teaching online courses relative to teaching face-to-face courses. The data from this study can be used by instructors, administrators, and instructional designers to create higher quality course development processes, training processes, and overall communication.

Keywords: Online Learning, Online Course Development, Instructor Time Commitment

I. INTRODUCTION

How much time does it take to teach an online course? Does teaching online take more or less time than teaching face-to-face? What components of teaching make up the differences between the two methods? Does it matter if it's the first time the course has been taught as opposed to the second or third time? Can the technology be separated from the pedagogy for online teaching? How much time does it take instructors to develop an online course? Does online course development take more or less time than face-to-face course development?

These are just some of the many questions that have remained unanswered when it comes to online teaching. Instructors, department chairs, deans, and program administrators have long believed that teaching online is more time-consuming than teaching face-to-face. But this belief is not based on empirical research; it is based on anecdotal evidence, the trade press, and qualitative perceptions. Perhaps the existing beliefs can be supported empirically; perhaps they can not.

Institutions, administrators, and instructors recognize that developing and teaching online courses are not the same as developing and teaching face-to-face courses. Institutions are developing training courses for instructors that cover both the technology utilized and the pedagogical best practices for online learning [Terantino and Agbehonou, 2012]. It is recognized, and has been for some time, that technical support and pedagogical support are necessary for the successful creation of online courses [Li and Shearer, 2005; Oblinger and Hawkins, 2006; Xu and Morris, 2007], yet instructors and administrators still see a lack of technical support and pedagogical support available [Lesht and Windes, 2011]. Whether through internal or external motivators, a greater emphasis on quality standards and measurement is seen as critical to the successful creation of online courses [Chao et al., 2010; Parscal and Riemer, 2010].

However, even with the awareness of and the implementation of many training and support initiatives, the primary inhibitors of online education from an instructor perspective include preparation time for course design and/or delivery [Amiel and Orey, 2007; Crews et al., 2008; Dunlap, 2005; Lesht and Windes, 2011; Maguire, 2005; Sheridan, 2006; Stevens, 2013; Stevenson, 2007], resistance to technological change [Maguire, 2005], and a lack of technical support [Maguire, 2005]. In particular, many researchers and authors have looked at and written about the idea of time spent by instructors developing and delivering online courses, but instructor time has not been assessed or compared across the two delivery modes (online and face-to-face) or across multiple iterations of delivery.

This purpose of this study is to empirically measure the perceptions of and actual time spent developing and teaching online courses. Beyond that, and in order to reach conclusions with greater relevance and value, the activities associated with development and delivery (teaching) have been separated into distinct categories and the activities associated with delivery across multiple semesters have been separated into distinct iterations.

II. SURVEY

A survey (see Appendix) of 165 instructors from three universities (one in the Southeastern US, one in the Midwestern US, and one in the Western US) served as the means of data collection. Each instructor was asked to complete the online survey regarding their experiences and perceptions of developing and teaching online courses. The survey defined “online courses” as those with >80% of course content delivered through a Learning Management System (LMS) [Allen and Seaman, 2008] with all other courses being defined as “face-to-face.” Question types included fill-in, list selections, and 7-point anchored scales.

The survey required approximately 15-20 minutes to complete. All responses were completed anonymously, and no incentive was provided for participation. Over the course of two weeks, several reminders were sent to perspective respondents soliciting their participation.

III. RESULTS AND ANALYSES

Instructor Representation and Experience

Of the 165 instructors solicited, 78 responded but only 68 responses were usable for a response rate of 41%. The respondents represented all three institutions and the following academic units (out of 19 possible choices): Liberal Arts – 18, Business – 17, Education – 7, Engineering – 5, Computer Science – 2, Law – 1, Library Science – 1, Information Science – 1, Nursing – 1, and Physical Education and Recreation – 1, with 14 respondents selecting Other.

These instructors have been teaching at the university level for an average of 14.2 years, with a range of 0 (fresh out of a Ph.D. program) to 41 years. On average, these instructors developed their first online course in 2001 (range 1990 to 2007) and taught their first online course in 2002 (range 1990 to 2008). These instructors utilized four distinct Learning Management Systems – Blackboard, WebCT and/or WebCT after purchase by Blackboard, a Sakai-based system, or a home-grown system.

Each respondent has developed an average of 2.13 distinct online courses and has taught an average of 2.03 distinct online courses, both with a range of 0 to 10. The response of 0 is possible as someone could have developed a course, but never taught it online; similarly, someone could have taught an online course without having developed it (i.e., developed by someone else). A question was asked regarding the number of online courses the respondents have taken as a student, as opposed to developed and/or taught from the instructor's perspective. Only 13 of the 68 respondents had ever taken an online course as a student, with an average of 4 classes each. It is hypothesized that over time this number will increase as a greater number of Ph.D. students will have taken online courses at some point in their educational career before becoming a professor.

Face-to-Face and Online Versions

Approximately 75% of the respondents indicated that a face-to-face version of their online course exists and pre-dates the online version. None of the respondents indicated that their online course pre-dates a face-to-face version. This simply means that of the 25% who have an online course without a corresponding face-to-face course, a face-to-face version could, at some point, be created, but it has not yet been.

Comparing face-to-face and online “versions” of the same course, 21% of the respondents have never taught the course in the classroom while only 4% have never taught it online. A full 57% have taught the face-to-face version five or more times with 45% having taught the face-to-face version over 10 times. For the online version, 48% have taught it five or more times with only 23% having taught it online 10 or more times. This large drop regarding online teaching is likely due to the online version not having been in existence for nearly as long as the classroom version. The percentage who haven’t taught the classroom version closely matches the number of courses that do not exist in the classroom (approximately 25%, see above), with the difference explained by potential overlap of courses – i.e., multiple instructors developing different versions of the same online course that does not exist in the classroom – and the possibility that the respondent has taught the face-to-face version of the course at a previous institution but it does not exist at the respondent’s current institution.

Course Development Time and Planning

For face-to-face courses, only 7% of the respondents begin course development more than 16 weeks (approximately the beginning of the preceding academic semester) prior to the start of the course. This compares to 12% of respondents beginning their online course development more than 16 weeks prior to the start of the course. Similarly, over 70% of the respondents waited to within 8 weeks of the start of the course to begin development of their face-to-face course, whereas this number is only 40% for online courses. In general, more faculty begin online course development earlier and fewer faculty wait as long to start development.

While knowing when the course development process began is important, knowing how long it lasted (and therefore when it ended) is just as important. Forty-six percent completed their online course development in eight weeks or less, 87% completed in sixteen weeks or less, and 12% took longer than 20 weeks. In terms of actual hours, 29% of the respondents needed over 100 hours to develop their online course with this percentage increasing to 47% for earlier course developments. The median is nearly 70 hours, down from over 90 hours for earlier course developments. It seems immediately clear that efficiencies of time are realized in subsequent course development efforts. Relative to when development started, it seems that respondents were able to judge the amount of work and time required accurately enough to, on average, complete the work before the start of the semester. However, with nearly half only requiring eight weeks or less (19% required four weeks or less), it seems that if anything, instructors overestimated the time required, or simply provided themselves enough time to not finish at the last minute.

A partial explanation for the time needed to develop online courses is that just over half of the respondents (53%) indicated that they developed over 90% of the course content themselves. Over 75% of the respondents developed at least half of the course content themselves. Textbook publishers and instructional designers also provided content, but not to the same extent, though 81% of the courses utilize a textbook. Table 1 provides the full set of responses. The data in the table should be read as “X percent of respondents indicated that [source] provided [range of content developed] of the content” – i.e., “eight percent of respondents indicated that they provided 0-10% of the content” while “seven percent of the respondents indicated that a textbook publisher provided 41-50% of the content.” The key take-away from Table 1 is that a majority of the course content is being developed by the instructor, but publisher materials and content developed by instructional designers and other support personnel have their place as well.

Table 1. Percent of Course Content Developed by...

	Respondent	Textbook Publisher	Pedagogical Support or Instructional Designer
0-10%	8%	64%	86%
11-20%	3%	7%	8%
21-30%	5%	5%	2%
31-40%	2%	1%	1%
41-50%	3%	7%	1%
51-60%	6%	5%	0%
61-70%	3%	2%	1%
71-80%	4%	3%	0%
81-90%	11%	3%	0%
91-100%	53%	1%	1%

When asked about the entire course (content, assessments, structure, design, etc.), 59% of the respondents indicated that they developed 91-100% of the entire course with only 8% indicating they developed less than 10% of the entire course.

Course Enrollment

Regarding course enrollments, 30% of the courses have between 21 and 25 students (the largest enrollment range) with 76% of the courses having enrollments between 6 and 30 students. In the classroom, 21% of the courses have between 21 and 25 students (also the largest enrollment range) with only 61% of the courses having enrollments between 6 and 30 students. While both course types also showed high numbers of courses with enrollments of 46+ (15% and 14% for online and classroom, respectively), 21% of classroom courses had enrollments between 31 and 45 where this accounted for only 7% of online courses. This seems to indicate not only a tendency towards smaller enrollment in online courses, but also an apparent demarcation within online courses at around 30 students. There are courses with larger enrollments, but they tend to be much larger and not on a continuum as with classroom courses.

Course Development Perceptions

Several questions were used to measure instructor perceptions of the time required to develop online courses. One question compared online course development to face-to-face course development. Respondents were asked to indicate their level of agreement with the statement "it is more time consuming to develop an online course than a face-to-face course" based on a 7-point scale ranging from Strongly Disagree to Strongly Agree with a mid-point of Neutral. Eighty-one percent agreed with this statement (not including Neutral), with 43% choosing Strongly Agree.

Two questions directly compared the development of subsequent online courses. Respondents were asked to indicate their level of agreement with the statements "it is more time consuming to develop a second online course than to develop a first online course" and "it is more time consuming to develop a third online course than to develop a second online course" based on a 7-point scale ranging from Strongly Disagree to Strongly Agree with a mid-point of Neutral. The responses are shown in Table 2. Only 50% (n=34) of the respondents had developed more than one online course, so the number of respondents to these two questions was lower.

Table 2. Online Course Development Compared to Previous Courses

	It is more time consuming to develop a second online course than to develop a first online course	It is more time consuming to develop a third online course than to develop a second online course
Strongly Disagree	2%	4%
Disagree	27%	25%
Somewhat Disagree	29%	27%
Neutral	31%	34%
Somewhat Agree	7%	7%
Agree	5%	2%
Strongly Agree	0%	2%

These questions, in combination, point to the conclusion that there is a definite difference in course development between online and face-to-face courses, but subsequent online course developments are less time consuming (not merely equally time consuming) than prior online course developments. This suggests that there is something that occurs during or after the development of a first online course to make subsequent online course developments much less time consuming, and this matches the respondents' indications of the number of hours needed for online course development discussed earlier.

Course Delivery Perceptions

Turning to the actual course delivery (i.e., teaching), several questions were used to measure instructor perceptions of the time required to teach online courses. All three questions compared teaching online courses to teaching face-to-face courses. Respondents were asked to indicate their level of agreement with the statement “it is more time consuming to teach an online course the first time than a face-to-face course the first time” based on a 7-point scale ranging from Strongly Disagree to Strongly Agree with a mid-point of Neutral. The second and third statements replaced the word “first” with “second” and “third,” respectively. Table 3 shows the responses.

Table 3. Online Course Teaching Compared to Face-to-Face Courses

	It is more time consuming to teach an online course the first time than a face-to-face course the first time	It is more time consuming to teach an online course the second time than a face-to-face course the second time	It is more time consuming to teach an online course the third time than a face-to-face course the third time
Strongly Disagree	5%	7%	13%
Disagree	5%	13%	18%
Somewhat Disagree	6%	18%	10%
Neutral	3%	11%	18%
Somewhat Agree	13%	23%	23%
Agree	29%	13%	3%
Strongly Agree	40%	15%	15%

As with course development, teaching an online course the first time is much more time consuming (82% agree; 16% disagree) than teaching a face-to-face course the first time. However, as the course is taught in subsequent terms, there is much less difference between online and face-to-face teaching. In fact, by the third time teaching an online course, there seems to be no difference in time when compared to the third time teaching a face-to-face course (41% agree; 41% disagree).

It seems evident that developing online courses is more time consuming than developing face-to-face courses, but that the development of each subsequent online course is not as time consuming as the previous online course development. In addition, teaching online is more time consuming than teaching face-to-face, but this is only the case for the first time and perhaps the second time teaching the course. After the second time, teaching a course online or face-to-face is relatively the same in terms of time.

Components of Development and Delivery

To understand more fully the nature of the time commitment to online course development and teaching, five questions asked the respondents to compare specific components of the development and/or teaching process across online and face-to-face courses, as well as across multiple/subsequent times teaching in each mode. For example, one such component of course development and teaching is Content Development. Regarding Content Development, respondents were asked to indicate how this component compared between online and face-to-face courses when teaching a course the first time, second time, and third time in each delivery mode. Respondents were given a 7-point scale ranging from Much More Time-Consuming to Much Less Time Consuming with a mid-point of Neither.

The four components in addition to Content Development were Pre-Semester Setup (Syllabus, Schedule, Assignments, Etc.), Instructor-Student Interaction, Grading & Assessment, and Overall Involvement in the Class. Table 4 provides the responses for these questions, where T1, T2, and T3 represent the comparisons of teaching online relative to teaching face-to-face the first time, second time, and third time, respectively.

Table 4. Online Course Development and Delivery Components Compared to Face-to-Face Courses

	Content Develop.			Pre-Semester			Interaction			Grading/Assess.			Involvement		
	T1	T2	T3	T1	T2	T3	T1	T2	T3	T1	T2	T3	T1	T2	T3
Time-Consuming for Online															
Much More	48%	10%	11%	41%	7%	5%	27%	24%	23%	16%	10%	11%	21%	14%	17%
More	21%	21%	14%	25%	29%	16%	24%	20%	17%	21%	27%	26%	19%	19%	17%
Somewhat More	16%	36%	24%	16%	33%	27%	24%	27%	26%	17%	22%	29%	16%	24%	17%
Neither	14%	19%	30%	16%	24%	38%	21%	24%	29%	27%	24%	20%	19%	19%	22%
Somewhat Less	2%	7%	14%	2%	7%	14%	0%	2%	3%	10%	12%	11%	17%	10%	17%
Less	0%	5%	5%	0%	0%	0%	5%	2%	3%	10%	5%	3%	5%	7%	6%
Much Less	0%	2%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	7%	6%

When teaching a course the first time, Content Development (85%) is clearly more time-consuming for online courses than face-to-face courses. The same can be said for Pre-Semester Setup (82%) and Instructor-Student Interaction (75%), while Grading & Assessment (54%) and Overall Involvement in the Class (56%) were less so.

Comparing the second time teaching a course in both modes, Content Development (67%), Pre-Semester Setup (69%), and Instructor-Student Interaction (71%) are still more time-consuming for online courses than face-to-face courses (though each category has moved a bit towards the center of the spectrum). Grading & Assessment (59%) and Overall Involvement in the Class (57%) remain fairly consistent for the second time teaching, though both moved a bit towards the “more time-consuming” end of the spectrum.

Moving to the third time teaching a course in both modes, Content Development (49%), Pre-Semester Setup (48%), and Overall Involvement in the Class (51%) all decreased their ratings as more time-consuming for online courses than face-to-face courses from previous iterations. However, Instructor-Student Interaction (66%), while slightly lower as well, remains high, and Grading & Assessment (66%) is at its highest level yet, and is the only factor to increase in this iteration.

In all of these measures, the Neither rating received relatively large responses, which means the weight of the responses towards online courses being more time-consuming than face-to-face courses is even stronger. Still, there is supporting evidence to the earlier finding that teaching an online course the second and third time becomes about as time-consuming as teaching a face-to-face course the second and third time. The factors that still remain more time-consuming for online teaching compared with face-to-face teaching, even after teaching the course three times, are Instructor-Student Interaction and Grading & Assessment, the two specific factors that can not be prepared in advance for online courses (unlike Content Development and Pre-Semester Setup) or likely occur equally across all courses in all modes (Overall Involvement in the Class).

Learning Curves

To corroborate and perhaps focus the earlier responses regarding changes in time commitment over time, respondents were given the following definitions:

Learning curves refer to the time it takes to “get used to” the course and/or the method of teaching. In other words, the amount of time before you are comfortable as an instructor. The technological learning curve concerns the skills and nuances associated with the technology used to deliver the course. The pedagogical learning curve concerns the methods and nuances of both designing and delivering a course to meet the learning objectives. All courses (online and face-to-face) have pedagogical learning curves. For the following questions, assume that only online courses have a technology learning curve.

Respondents were then asked to indicate how many times teaching their first online course it took them to make it through the Technology learning curve for e-learning. The next two questions asked respondents to indicate how many times teaching an online course and a face-to-face course, respectively, it took them to make it through the Pedagogical learning curve for that course in the respective mode of delivery. Table 5 provides the responses.

Table 5. Learning Curves

	Online Technology Learning Curve	Online Pedagogical Learning Curve	Face-to-Face Pedagogical Learning Curve
One Time	38%	22%	38%
Two Times	30%	36%	38%
Three Times	8%	28%	12%
Four Times	15%	7%	3%
Five Times	3%	3%	5%
Six Times or More	5%	3%	3%

The responses in Table 5 clearly show that instructors make it through the Online Technology Learning Curve faster than the Online Pedagogical Learning Curve, and they make it through the Face-to-Face Pedagogical Learning Curve the fastest. This makes intuitive sense as instructors have been teaching in the face-to-face mode for years or decades (on an individual basis) and centuries and millennia (on an institutional and societal basis). The “how to teach” issues of face-to-face courses have been around for a long time, and instructors have experience with and resources for dealing with these issues. However, the effort and energy to “convert” the pedagogical issues from face-to-face to online is not a straightforward exercise. While some instructors make it through the Online Pedagogical Learning Curve after teaching the course only one time, it takes three times before a clear majority of instructors have made it through this learning curve. Still, while the Online Pedagogical Learning Curve requires three iterations of teaching the course, the Online Technology Learning Curve requires about one less iteration. This indicates that the “problems” and myths and concerns associated with online course development and delivery are more likely associated with pedagogy than with technology, though both are surely factors at the onset.

Overall Preferences and Perceptions

In addition to the data collected regarding the numerous aspects of online course development and delivery discussed above, respondents were asked to indicate their opinions about developing and teaching online courses as well as their preferences for course delivery.

When asked to develop their first online course, 83% of the respondents indicated that they were initially excited to teach online with less than 15% indicating they were not excited. Having then gone through the development process and at least one iteration of teaching an online course, 75% of the respondents indicated that they enjoy developing online courses and 85% indicated that they enjoy teaching online courses. The initial excitement has remained fairly constant through development and delivery, and provides one more indication that instructors enjoy online teaching and can adjust to the nuances of the technology and pedagogy.

At the undergraduate level, there was a strong preference (59%) for face-to-face course delivery. Only 25% preferred online delivery. While the face-to-face preference drops to 41% at the graduate level, the online preference only rises to 27% (with a large group of “neutral” responses). There is a definite move towards online delivery at the graduate level among the respondents, but it does not show up as a full shift in preferences. Rather, it is as if it were a partial shift with the respondents moving from face-to-face to neutral, but not all the way to online. When asked about overall course delivery preferences, 44% preferred face-to-face with 21% preferring online (again with a large group of “neutral” responses).

IV. IMPLICATIONS

While an empirical understanding of instructor perceptions regarding online course development and teaching is helpful, the true benefit will only come when these results are used in positive ways – by instructors, administrators, and institutions. Trainers and instructional designers should carefully coach instructors through their first time teaching online, making sure instructors know that time commitment is an issue and that the time commitment will likely get better the next time.

Trainers and support personnel should make instructors aware of realistic expectations in terms of the pedagogical learning curve and the technological learning curve. These two areas, while linked together because of online courses, should be treated separately when possible. All parties need to be aware that the Technological learning curve is shorter, but still exists. Instructors should be reminded that learning objectives, many assessments, and much of the course content for an online course will be the same as for a face-to-face course.

Instructional designers should look for time-consuming (and perhaps unnecessary) pedagogical approaches during online course development. Additionally, instructors need to be aware that

some aspects of teaching online may be faster than in a face-to-face class and some aspects may be more time-consuming. Through multiple iterations of delivery, instructors will fine-tune the course to match their needs and the needs of the students. In the end, instructors have been teaching for years and decades, and moving to a new medium can be difficult for some. It is important to remind them that there were hurdles and problems the first time they taught in the classroom, but now (after many years and iterations), the class runs smoothly.

While instructors already begin developing online courses in advance of when they begin developing face-to-face courses, administrators and support personnel need to be cognizant of instructor time and other commitments. At some point, there will be a reduction in effectiveness and efficiency if a course development project starts too early, i.e., too far in advance of the first day of teaching. This is likely true for both online and face-to-face courses, but institutions and administrators within them usually do not spend time coordinating the development of face-to-face courses and the accompanying resources required.

V. FUTURE RESEARCH

This study has shed light on many aspects of online course development and teaching. However, it is just the first attempt to understand these processes, especially in relation to face-to-face course development and teaching. Ideally, future studies can expand the data set to include a greater number of institutions, and therefore better representation across academic disciplines. Additional work is necessary to answer the following questions and gain a more complete understanding of possible influences on instructor perceptions and time commitments:

- What is the impact of different levels and methods of development support?
- Is there a difference across academic disciplines?
- Is there a difference across academic levels (undergraduate versus graduate)?
- Is there a relationship between instructor preferences and ratings of enjoyment with perceptions and time commitments?
- What is the impact of course enrollments?
- What are the impacts of pedagogical (levels and types of interaction, level of engagement, asynchronous versus synchronous delivery, etc.) choices?
- What are the impacts of technological (LMS choice, tool usage within the LMS, etc.) choices?
- Will greater exposure to online courses as a student (e.g., MBA, PhD) impact perceptions and time commitments for developing and teaching online courses?

VI. CONCLUSION

Many research studies and practitioner articles indicate instructor time commitment as a major inhibitor to developing and teaching online courses. However, while they identify the issue and provide possible solutions, they do not empirically measure actual time commitments or instructor perceptions when comparing online to face-to-face delivery and when comparing multiple iterations of delivery. The results of this study show distinct differences in developing online courses relative to developing face-to-face courses and distinct differences in teaching online courses relative to teaching face-to-face courses.

Developing online courses is more time consuming than developing face-to-face courses, but the development of each subsequent online course is not as time consuming as the previous online course development. In addition, teaching online is more time consuming than teaching face-to-face, but this is only the case for the first time and perhaps the second time teaching the course. After the second time, teaching a course online or face-to-face is relatively the same in terms of time. In addition, the Technology learning curve is shorter than the Online Pedagogical learning curve.

While the data from this study can be used by instructors, administrators, and instructional designers to create higher quality course development processes, training processes, and overall communication, there is still much to be learned through further data analysis as well as additional data collection. Instructor time commitment is an issue, and now a more clear understanding is available.

VII. REFERENCES

- Allen, I.E. and J. Seaman (2008) *Staying the Course: Online Education in the United States, 2008*, Sloan-C.
- Amiel, T. and M. Orey (2007) "Do You Have the Time? Investigating Online Classroom Workload", *Journal of Educational Technology Systems* (35), pp. 31-43.
- Chao, I.T., T. Saj, and D. Hamilton (2010) "Using Collaborative Course Development to Achieve Online Course Quality Standards", *International Review of Research in Open & Distance Learning* (11)3, pp. 106-126.
- Crews, T.B. et al. (2008) "Workload Management Strategies for Online Educators", *Delta Pi Epsilon Journal* (50)3, pp. 132-149.
- Dong, L. and R. Shearer (2005) "Project Management for Online Course Development", *Distance Learning* (2)4, pp. 19-23.
- Dunlap, J.C. (2005) "Workload Reduction in Online Courses: Getting Some Shuteye", *Performance Improvement* (44)5, pp. 18-25.
- Lesht, F. and D.L. Windes (2011) "Administrators' Views on Factors Influencing Full-Time Faculty Members' Participation in Online Education", *Online Journal of Distance Learning Administration* (14)5.
- Maguire, L.L. (2005) "Faculty Participation in Online Distance Education: Barriers and Motivators", *Online Journal of Distance Learning Administration* (8)1.
- Oblinger, D.G. and B.L. Hawkins (2006) "The Myth about Online Course Development", *Educause Review* (41)1, pp. 14-15.
- Parscal, T. and D. Riemer (2010) "Assuring Quality in Large-Scale Online Course Development", *Online Journal of Distance Learning Administration* (13)2.
- Sheridan, R. (2006) "Reducing the Online Instructor's Workload", *Educause Quarterly* (3), pp. 65-67.
- Stevens, K.B. (2013) "Contributing Factors to a Successful Online Course Development Process", *Journal of Continuing Higher Education* (61), pp. 2-11.
- Stevenson, K.N. (2007) "Motivating and Inhibiting Factors Affecting Faculty Participation in Online Distance Education", *UMI Dissertations Publishing*.
- Terantino, J.M. and E. Agbehonou (2012) "Comparing Faculty Perceptions of an Online Development Course: Addressing Faculty Needs for Online Teaching", *Online Journal of Distance Learning Administration* (15)2.
- Xu, H. and L.V. Morris (2007) "Collaborative Course Development for Online Courses", *Innovative Higher Education* (32)1, pp. 35-47.

APPENDIX I. SURVEY QUESTIONS

PROFESSIONAL INFORMATION

Please select the Unit/College/School of which you are a member.

At which institution are you employed.

Number of years teaching at university level post-doctorate.

Year doctorate earned.

DISTANCE LEARNING EXPERIENCE

Number of online courses you have taken as a student.

Semester in which you developed your first online course.

Semester in which you taught your first online course.

Number of online courses you have developed in total.

Number of online courses you have developed at your current institution.

Number of online courses you have been asked to develop but did not, and reason(s) why not.

Number of unique online courses you have taught in total.

Number of unique online courses you have taught at your current institution.

Number of unique online courses you have been asked to teach but did not, and reason(s) why not.

COURSE DEVELOPMENT & DELIVERY

For each of the last three online courses you have developed (or fewer if you have not developed three):

	Most recent developed course	Second most recent developed course	Third most recent developed course
Development			
Number of times you have taught this course face-to-face			
Number of times you have taught this course online			
Developed first for face-to-face or online delivery			
If developed first for online delivery, has it been developed for face-to-face delivery			
Is this course within your area of expertise.			
Percent of online course content			

(teaching materials) you developed			
Percent of online course content created by the publisher			
Percent of online course content created by pedagogical support or instructional design personnel?			
Percent of entire online course you developed (content, assessment, structure, design, etc.)			
Number of weeks to develop the online course, and approximate total hours			
Semester you first taught this course face-to-face			
Semester you first taught this course online			
Average face-to-face enrollment			
Average online enrollment			
How far in advance of face-to-face delivery did you begin course development (measured in weeks)			
How far in advance of online delivery did you begin course development (measured in weeks)			
What forms of support were available to you during the development period for online delivery			
What form(s) of compensation did you receive during the development period for online delivery			
What form(s) of compensation did you receive during the first semester/quarter you taught this course online			
Course Management System utilized for development.			
Course Management System utilized for most recent delivery (if different than for development).			
Structure			
How many units or modules does this course contain?			
Do you use a textbook?			
Do you use a coursepack or other supplemental reading materials?			

Do you have small group activities in your course?			
If you utilize discussions, do you grade or rate student participation?			
How do you encourage your students to email you within this course?			
What percentage of a student's overall course grade is based on participation?			
What percentage of a student's overall course grade is based on individual work (as opposed to group work and not including participation)?			
Do you have your students share their work with each other?			

TIME COMMITMENT

Indicate your level of agreement with the following statements:

It is more time consuming to develop an online course than a face-to-face course.

It is more time consuming to teach an online course the first time than a face-to-face course the first time.

It is more time consuming to teach an online course the second time than a face-to-face course the first time.

It is more time consuming to teach an online course the third time and beyond than a face-to-face course the first time.

It is more time consuming to develop a second online course than to develop a first online course.

It is more time consuming to develop a third online course than to develop a second online course.

How do the following tasks compare between online and face-to-face courses when teaching a course the first time, second time, and third time in each mode:

	Teaching online the first time relative to teaching face-to-face the first time is...	Teaching online the second time relative to teaching face-to-face the second time is...	Teaching online the third time relative to teaching face-to-face the third time is...
Content development			
Pre-semester setup: syllabus, schedule, assignments, etc.			
Student questions, office hours,			

etc.			
Grading and assessment			
Weekly time involved "in" the class			

LEARNING CURVES

Many faculty, distance learning coordinators, and administrators feel that there are two learning curves that a faculty goes through when first developing and teaching online courses – technological and pedagogical. These learning curves refer to the time it takes to “get used to” the course and/or the method of teaching. In other words, the amount of time before you are comfortable as an instructor. The technological learning curve concerns the skills and nuances associated with the technology used to deliver the course. The pedagogical learning curve concerns the methods and nuances of both designing and delivering a course to meet the learning objectives. All courses (online and face-to-face) have pedagogical learning curves. For the following questions, assume that only online courses have a technology learning curve.

After how many times teaching your **first online course** did you make it through the **technology** learning curve for e-learning:

After how many times teaching an **online course** have you made it through the **pedagogical** learning curve for that particular course:

After how many times teaching a **face-to-face course** have you typically made it through the **pedagogical** learning curve for that course:

OVERALL IMPRESSIONS

Initial level of excitement for teaching online when developed first course:

Who/what was the impetus for this first online course development?

at the request of your department chair; at the request of your dean; part of a curricular program development strategy/plan; your own initiative; other

What is your current preference for course delivery?

Indicate your level of agreement with the following statements:

My technology self-efficacy is higher than average
 I enjoy teaching online courses
 I enjoy developing online courses

ABOUT THE AUTHOR

Lee A. Freeman is an Associate Professor of Information Systems in the College of Business at the University of Michigan-Dearborn and the Campus Online Learning Lead for the University of Michigan-Dearborn. Lee holds a Ph.D. from Indiana University and he has been an associate editor of *JISE* since 2007. His teaching interests include systems analysis and design, IS policy, and IS outsourcing; and his primary research interests include computer self-efficacy, the pedagogy of online learning, mental modeling, and information ethics. He has published in *MIS Quarterly*, the *Communications of the ACM*, *Communications of the AIS*, and the *Journal of IS Education*, among others.