

Predictors of Faculty Acceptance of Online Education

Predictores de Aceptación de la Facultad de Educación Online

Cindy Stewart

University of Houston-Downtown
Houston, TX 77002 USA
StewartCi@uhd.edu

Christine Bachman

University of Houston-Downtown
Houston, TX 77002 USA

Ruth Johnson

University of Houston-Downtown
Houston, TX 77002 USA

Abstract

An extended version of the Technology Acceptance Model was used to predict intention to teach online. One-hundred and twenty-seven faculty and administrators at an open-enrollment, public university completed an online survey examining acceptance of online courses and degree programs. Results demonstrated that the extended Technology Acceptance Model, which included facilitating conditions and faculty motivation to teach online versus face-to-face, was predictive of intent to teach online and interest in offering online degree completion programs, but it was not predictive of faculty members' perceptions of the value and legitimacy of online education. These data suggest that although technology acceptance is related to behavioral intentions to teach online, it is not related to perceptions about online education.

Keywords: technology acceptance model, faculty acceptance, online education, motivation orientation, online degree, intention to teach online

Resumen

Una versión extendida del Modelo de Aceptación Tecnológica se utilizó para predecir la intención de enseñanza online. Ciento veintisiete miembros de la facultad y administradores en una universidad pública con inscripción abierta completaron una investigación online examinando la aceptación de cursos online y programas de grados académicos. Los resultados demostraron que el Modelo de Aceptación Tecnológica que incluía condiciones de facilitación y motivación de la facultad para enseñar online versus clases presenciales, fue profético del intento de enseñar online y del interés de ofrecer programas para completar grados académicos, pero no fue profético en cuanto a las percepciones de los miembros de la facultad acerca del valor y legitimidad de la educación online. Estos datos sugieren que a pesar que la aceptación tecnológica está relacionada con intenciones conductuales de enseñar online, no está relacionada con las percepciones relativas a la educación online.

Palabras Claves: Modelo de aceptación tecnológica, Aceptación de la Facultad, Educación online, Orientación a la motivación, Grado académico online, Intención de enseñar online.

Introduction

Approximately seventy-five percent of US higher education students are classified as “nontraditional” (Choy, 2002). Nontraditional status is defined as a “student who does not enter postsecondary enrollment in the same year that he or she completed high school, attends part time for at least part of the academic year, works full time, is considered financially independent from a legal guardian, has dependents other than a spouse, is a single parent, or has a General Educational Development (GED) test score” (NCES, 2003). Nontraditional students are an underserved population who have been afforded fewer opportunities to get a postsecondary education due to competing work and family responsibilities. The projected enrollment growth for higher education, however, is the result of nontraditional students attending college in record numbers. In contrast, a recent national report projects that the number of high school students expected to graduate and attend college within the same year is expected to decrease through 2015 (Western Interstate Commission for Higher Education [WICHE], 2008).

Online Degrees

To satisfy nontraditional students' growing demands for flexible course scheduling in higher education, distance education has been employed as a means to accommodate their needs. Ninety percent of four-year, public institutions offer distance education, with the majority of courses delivered fully online (Allen & Seaman, 2005). Online instruction has experienced a compounded annual growth rate of 19% since 2002 (Allen & Seaman, 2010). A recent survey of over 300 institutions reported that over 4.6 million

students are enrolled in online courses across the nation, with the majority of those courses offered by large, public institutions ([Allen & Seaman, 2010](#)). The current economic crisis has only served to increase the demand for online courses and degree programs; consequently, universities Presidents recognize student preferences for online courses ([Allen & Seaman, 2010](#)). Academic leaders, in response to online enrollment increases, include online education as a critical component of their universities' strategic plans and report that it will be necessary for sustained growth ([Allen & Seaman, 2010](#)).

Surprisingly, growth in the number of institutions offering online degree programs is relatively small in comparison to that of online course offerings. Online degree programs increased minimally from 31% in 2004 to 35% in 2006 ([Allen & Seaman, 2007](#)). [Allen and Seaman \(2007\)](#) suspect that those who intend to offer online education are currently doing so and few others will develop online degree programs. A potential cause for the slow expansion from online courses to online degree programs is the perception that online degrees are inferior to traditional degrees ([Maki & Maki, 2002](#); [Parry, 2009](#); [Young, 2000](#)). Traditional educators fear that the lack of face-to-face interaction will impair student learning ([Altschuler, 2001](#)). Some find online courses highly susceptible to fraud, thereby devaluing the degree ([Peabody, 2001](#); [Symonds, 2001](#)). Skeptics doubt the validity of the distance education research that demonstrates that online and traditional education produce comparable student learning outcomes ([Shea, 2007b](#)).

Despite the reservations about online education quality, the literature consistently demonstrates that student learning outcomes are similar for traditional and online courses and degree programs. [Bernard and colleagues \(2004\)](#) reported that online students had a slight advantage over traditional students. In a meta-analytic study of over 400 universities, [Russell \(2005\)](#) found no significant differences between the effectiveness of the traditional and online delivery mode. Moreover, the US Department of Education's ([DOE, 2009](#)) meta-analytic study concluded that online education was effective for undergraduate and graduate students because online students achieve similar learning outcomes in comparison to students in traditional classes. Additionally, the DOE analyses demonstrated that online students may have an advantage over traditional students in that online learners spent more "time on task" than did traditional students. The DOE (2009) attributed improved learning in online courses to differences in content, pedagogy, and time on task.

Faculty Acceptance of Online Degrees

If students achieve similar learning outcomes as those enrolled in traditional degree programs, then what barriers prevent the adoption of online degree programs? The most commonly cited factor inhibiting the development of online degree programs is faculty acceptance of online education ([Stith, 2000](#); [Ulmer, Watson, & Derby, 2007](#)). Higher education generally sets the pace for educational innovation and it is expected that those in higher education would adapt to meet the demands of a changing educational climate. Contrary to these expectations, approximately 95% of faculty members believe that traditional lecture is the most effective means to achieve student learning outcomes ([Blin & Munro, 2008](#)). Since faculty are content area experts, traditional interaction with students affirm their identity as such and thus make them resistant to alter their role of the "sage on the stage" to that of a "facilitator" or "coach", as necessitated in online courses.

Faculty also report a number of other factors related to their resistance to online education. [Yang and Cornelius \(2005\)](#) note that faculty were concerned that their traditional courses were not compatible with online education. Several studies suggest that the amount of time required to transition traditional courses to the online format may be a critical obstacle ([Arbaugh, 2000](#); [Hartman, Dzuiban, & Moskai, 2000](#); [Shea, 2007b](#)). Others have reported that faculty were concerned about compensation issues ([Hartman et al., 2000](#); [Shea, 2007b](#)), inadequate training ([Arbaugh, 2000](#); [Pankowski, 2004](#)), and lack of administrative support ([Bower, 2001](#); [Yang & Cornelius, 2005](#)).

Faculty acceptance thus far has been defined as a professor's willingness to teach an online course. Little research has examined faculty perceptions of the legitimacy and value of online education. [Allen & Seaman \(2007; 2010\)](#) surveyed academic leaders about their perceptions of faculty acceptance of the legitimacy and value of online education. While most academic leaders accept the merits of online education, only 33% felt that their faculty had positive opinions about the delivery mode in 2006, which remained relatively unchanged at 30% in 2009. Identifying factors that lead to faculty acceptance of online education are of central importance to achieving the strategic goals of universities and meeting increasing student demands for online degrees. The cooperation of faculty is essential for the

development and implementation of quality online degree programs as faculty members are responsible for curriculum development and the nature and quality of teaching.

Technology Acceptance Model Applied to Academic Settings

The Technology Acceptance Model (TAM) is based on the theoretical notions of Fishbein and Ajzen's (1975) Theory of Reasoned Action, which purports that an individual's beliefs influences her attitudes, which in turn influences her behavioral intentions. Davis (1989) adapted this model to provide explanatory determinants of information technology (IT) acceptance and use in business settings. Davis (1989) predicts intent to use technology based on an individual's ease of use and perceived usefulness of the technology. In the TAM, intent to use technology is determined directly by ease of use and indirectly by perceived usefulness as moderated by ease of use (Agarwal & Prasad, 1999; Venkatesh, 1999). Perceived usefulness has demonstrated direct effects on intent to use technology as well (Venkatesh & Morris, 2000). In addition, ease of use and usefulness directly affect attitudes toward technology, which in turn indirectly affect intent to use technology (Davis, 1989).

The TAM has been used in IT research to explain user acceptance and a wide range of technology based behaviors (Lee, Cheung, & Chen, 2005). Despite the TAM's proven capability of explaining technology acceptance, the model has not been broadly applied outside IT and business. The few studies that have extended the TAM beyond IT have found that the inclusion of additional variables is necessary to add explanatory power (Davis, Bagozzi, & Warshaw, 1992; Hsu & Lu, 2004; Kim, 2008). Several variables have been related to the TAM such as intrinsic motivation (Roca & Gagne, 2008; Venkatesh & Davis, 1996), facilitating conditions (Cheung, Chang, & Lai, 2000), and competence (Roca & Gagne, 2008; Venkatesh & Davis, 2000).

Application of the TAM to acceptance of online education has been examined on very few occasions. Martinez-Torres and colleagues (2008) analyzed an extended version of the TAM with university students. Ease of use, perceived usefulness, enjoyment, competence, facilitating conditions (i.e., student support services), and intent to use e-tools were examined using structural equation modeling (SEM). The findings revealed that enjoyment, perceived usefulness, ease of use, and previous e-tool use predicted students' intentions to use e-tools (Martinez-Torres et al., 2008).

A study conducted with university faculty found that ease of use and perceived usefulness variables were predictive of the intent to teach online classes, but most of the variance was accounted for by perceived usefulness (Gibson, Harris, & Colaric, 2008). In addition, Kim (2008) used SEM to examine factors affecting faculty acceptance of online education using an extended version of the TAM. Ease of use, perceived usefulness, online teaching experience, facilitating conditions (i.e., faculty support and training), competence, and intent to teach online courses were analyzed. Ease of use and perceived usefulness accounted for 80% of the variance in intent to teach online courses. Facilitating conditions and prior online teaching experience accounted for 34% of the variance in ease of use; whereas, online teaching experience and competence accounted for 20% of the variance in perceived usefulness (Kim, 2008). Together, these findings demonstrate that an extended version of the TAM may help predict faculty intent to teach online.

The Current Study

The present study extends the TAM's theoretical framework by including variables demonstrated to add predictive power to the model in educational settings. Specifically, the study examines the original explanatory variables included in the Davis (1989) TAM (i.e., ease of use and perceived usefulness), and includes motivation orientation, online teaching experience and facilitating conditions, which have been shown to enhance the TAM. Moreover, the current study also investigates faculty perceptions of the value and legitimacy of online education, as assessed by Allen and Seaman (2007; 2010). Based on previous research and theory, it was predicted that: 1) Ease of use and perceived usefulness will predict intent to teach online. 2) Online teaching experience will aid the TAM in predicting intent to teach online. 3) Facilitating conditions will improve the TAM's prediction of intent to teach online. 4) Motivation orientation will assist the TAM in predicting intent to teach online. 5) The extended TAM, including facilitating conditions and motivation orientation, will predict intent to teach online. 6) The extended TAM, including facilitating conditions and motivation orientation, will predict interest in online degree programs. 7) The extended TAM, including facilitating conditions and motivation orientation, will predict the value and legitimacy of online education variables.

Method*Participants*

The sample includes six college-level administrators (i.e., Department Chairs, Assistant Deans, and Associate Deans) and 121 faculty members employed at a large, public, open-enrollment university. Demographic data show that there are comparable numbers of men and women and more than half of the participants were members of the College of Humanities and Social Sciences. Less than half of the participants had taught hybrid or online courses (see [Table 1](#) for Participant Characteristics).

Table 1. Participant Characteristics

<i>Variable</i>	<i>n</i>	<i>%</i>
Age		
21-30	3	2
31-40	27	21
41-50	34	28
51-60	35	29
Over 61	23	19
Gender		
Female	60	49
Male	63	51
College		
Business	25	21
Humanities and SOS	63	52
Public Service	12	10
Science and Tech	18	15
University College	3	3
Job Title		
Visiting Professor	2	2
Lecturer	31	27
Assistant Professor	37	32
Associate Professor	25	21
Professor	16	14
Department Chair	3	3
Assistant Dean	1	1
Associate Dean	2	2
Web-enhanced Course		
Yes	99	82
No	21	18
Hybrid Course		
Yes	43	36
No	75	64
Online Course		
Yes	46	39
No	72	61
Interest in Online		
Not interested	27	25
Somewhat	36	34
Interested	15	14
Very Interested	29	27

Note. $N = 127$. Age data were missing for 5 participants, gender for 4 participants, college for 6 participants, job title for 7 participants; taught web-enhanced for 10 participants, taught hybrid for 9 participants; taught online for 9 participants; and interested in teaching online for 20 participants. SOS = Social Sciences; Tech = Technology.

Design and Procedure

Participants received an e-mail invitation to complete an online survey using [Survey Monkey](#) (surveymonkey.com, Portland, OR), which was approved by the university internal review board. Those interested in participating clicked on a link to the Survey Monkey website, reviewed the consent form, and completed the brief online survey. Participants were free to withdraw from the survey at any time and did not receive any compensation for their participation.

Measure

A survey was developed to investigate faculty acceptance of online education, faculty motivation orientation, and intent to teach online. The survey included 44 items that measured demographics, computer use, computer management system (CMS) experience, tool use, ease of use, perceived usefulness, faculty motivation orientation, degree program interest, faculty acceptance of online degrees, and intent to teach online (see the Appendix for the Faculty Acceptance Survey).

Demographic subscale. A four-item subscale measured age, gender, college, and rank.

Experience with computer management system (CMS). A nine-item subscale assessed faculty experience with the CMS. The items examined previous use of the CMS in various delivery modes, comfort with the CMS, and confidence in using the CMS.

A Principle Component Analysis (PCA) with Varimax rotation was performed on the ease of use, perceived usefulness, facilitating conditions and motivation orientation subscales. Items with factor loadings that exceeded .50 were included in the factor (see [Table 2](#) for the factor loadings and coefficient alphas).

Table 2. Factor Loadings for Principle Component Analysis with Varimax Rotation for Ease of Use, Perceived Usefulness, and Facilitating Conditions

<i>Scale</i>		<i>α</i>	<i>AVE</i>	<i>Loading</i>
Ease of Use		.63	58%	
	Easy to find online resources			.79
	Easy to become skillful			.88
Perceived Usefulness	Easy to use CMS			.60
		.95	56%	
	Educational technology is useful			.71
	Online teaching is compatible			.92
Facilitating Conditions	Appropriate for degree content delivery			.81
	Effective for student learning			.91
		.82	73%	
	Internal training and development			.88
	External training and development			.91
				.77

Note. AVE = Average Variance Extracted.

Ease of use. Three items derived from Davis' (1989) TAM measured ease of use using a four point response scale ranging from 1 (not at all easy to use) to 4 (very easy to use). A PCA was performed on the items and a single factor emerged, which accounted for 58% of the variance.

Perceived usefulness. Five items derived from Davis' (1989) TAM measured perceived usefulness using a four point response scale ranging from 1 (not at all) to 4 (very much). A PCA was performed on the items and two factors were identified: the first factor consisted of four items, which accounted for 56% of the variance and a second factor consisted of a single item and accounted for an additional 20% of the variance. Analysis of internal reliability for the five items was .78, but internal reliability improved dramatically if the single item (i.e., online teaching will impact my teaching effectiveness) that loaded onto the second factor was deleted.

Facilitating conditions. Three items assessed facilitating conditions for online teaching and used a four point response scale ranging from 1 (not interested) to 4 (very interested). A PCA was performed and the items loaded on a single factor that accounted for 73% of the variance.

Faculty motivations for teaching online courses. A nineteen item subscale assessed motivation orientation for online teaching using a four point response scale that ranged from 1 (not motivated) to 4 (very motivated). PCA yielded a two factor solution (intrinsic and extrinsic motivation dimensions) that accounted for 52% of the total variance (see Table 3 for the factor loadings and coefficient alphas).

Faculty motivations for teaching traditional courses. Motivation orientation for traditional teaching was measured with 14 items using a four point response scale ranging from 1 (not motivated) to 4 (very motivated). A PCA was performed and a three factor solution emerged: an intrinsic motivation factor and two extrinsic motivation factors (flexible schedule and unconfident), which accounted for 66% of the variance (see Table 4 for the factor loadings and coefficient alphas).

Faculty acceptance of the legitimacy and value of online education. Three items measured faculty acceptance of online education by examining perceived prestige of online degrees, perceived opportunities for online graduates in the workforce, and perceived opportunities for online graduates to attend graduate school. Participants could either agree or disagree with the statements. Reliability analysis demonstrated that internal consistency of the items was good, $\alpha = .75$.

Faculty intent to teach online. Three items examined faculty members' intent to teach online. The items assessed interest in teaching online, interest in offering online degree programs, and the number of online courses interested in teaching in a given semester. Analysis of the items demonstrated good internal reliability, $\alpha = .88$.

Table 3. Factor Loadings for Principle Component Analysis with Varimax Rotation of Faculty Motivations to Teach Online Courses Scale

Scale Item	Intrinsic	Extrinsic
Teaching responsibilities	.05	.81
Research responsibilities	-.01	.77
Service responsibilities	.13	.85
Home responsibilities	.01	.72
Scheduled at inconvenient times	.04	.65
Scheduled at inconvenient locations	.22	.57
Commuting issues	.26	.53
Comfortable with CMS	.48	.51
Enjoy teaching online	.79	.28
Confident with teaching abilities	.64	.37
Student evaluations will improve	.57	.05
Students desire online courses	.70	.19
Students learn more in online courses	.79	-.00
I am more responsive	.71	-.13
I am more motivated	.81	.09
Prefer online interaction	.77	-.02
Prefer online grading	.61	.36
Easier to teach online	.57	.20
Financial incentive to teach online	.42	.38

Note. Factor loadings greater than .50 and clearly aligned on a single factor are **boldfaced**. Coefficient alphas for the scales are: Intrinsic, $\alpha = .91$; Extrinsic, $\alpha = .84$.

Results

A series of hierarchical regression analyses were performed to predict the intent to teach online, interest in offering online degree programs, and faculty acceptance variables using ease of use, perceived usefulness, online teaching experience, facilitating conditions, and online versus traditional motivation for instruction. Menard (1995) states that hierarchical regression is most appropriate when theory drives the order of predictor entry into the model. The ease of use and perceived usefulness factors were entered into step one of the model and step two and three involved the inclusion of facilitating conditions and motivation orientation, respectively. Significant F change demonstrated that the inclusion of additional predictors into the model improved the variance accounted for in each of the criterion. Regression statistics for the various models tested are described below.

<i>Table 4. Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Faculty Motivations to Teach Traditional Courses Scale Scale Item</i>	<i>Intrinsic</i>	<i>Schedule</i>	<i>Unconfident</i>
Schedule is flexible	-.15	.78	.12
Like the commute	.12	.83	-.03
Convenient times	.18	.89	.03
Convenient locations	.18	.89	-.02
Not comfortable with CMS	.17	.05	.87
Unconfident with online	.12	.05	.84
Student evaluations will suffer	.08	-.06	.58
Students desire traditional	.43	.12	.27
Enjoy traditional courses	.57	.34	-.22
Prefer traditional interaction	.81	.09	.04
Students learn more	.90	.16	.19
I am more responsive	.93	.12	.15
I am more motivated	.91	.17	.18
Easier to teach traditional	.61	.18	.14

Note. Factor loadings that exceed .50 are boldfaced.

Coefficient alphas for the scales are: *Intrinsic*, $\alpha = .90$; *Schedule*, $\alpha = .88$; *Unconfident*, $\alpha = .65$.

The TAM and Intent to Teach Online

Overall, the model significantly accounted for 8.4% of the variance in intent to teach online, $F(2, 79) = 3.5$, $p < .05$. Results indicated that perceived usefulness did not significantly predict intent to teach online, $F(1, 79) = .03$, $p = .88$, but ease of use was predictive of intent to teach and independently accounted for 28.9% of the variance ($\beta = .54$, $p < .01$).

Previous Online Teaching Experience, the TAM, and Intent to Teach Online

Regression analysis indicated that 7.8% of the variance was accounted for by ease and usefulness, $F(2, 76) = 3.2$, $p < .05$, but online teaching experience provided no predictive benefits to the TAM, $F(3, 75) = 2.3$, $p = .09$.

Facilitating Conditions, the TAM, and Intent to Teach Online

The TAM accounted for 9.3% of the variance in intent to use, $F(2, 75) = 3.9$, $p < .05$. When facilitating conditions was added into the model, it accounted for an extra 22.3% of the variance in intent to teach online, $F(3, 74) = 11.4$, $p < .0001$. Together, facilitating conditions and the TAM accounted for 31.6% of

the variance in intent to teach online. Regression analyses indicated that ease of use ($\beta = .46$, $p < .01$) and facilitating conditions ($\beta = .58$, $p < .0001$) significantly predicted intent to teach online.

Online Motivation Orientation, the TAM, and Intent to Teach Online

The TAM significantly predicted intent to teach online, accounting for 11.4% of the variance, $F(2, 47) = 3.0$, $p < .05$. Adding the online motivation factors accounted for 26.7% more of the explained variance in intent to teach online, $F(4, 45) = 6.9$, $p < .0001$, for a total of 38.1% of the variance. Results demonstrated that ease of use ($\beta = .42$, $p < .05$), intrinsic motivation ($\beta = .53$, $p < .05$), and extrinsic motivation ($\beta = .60$, $p < .01$) significantly predicted intent to teach online.

Traditional Motivation Orientation, the TAM, and Intent to Teach Online

The original TAM accounted for 8.5% of the variance, $F(2, 64) = 3.0$, $p < .05$, and the model that included the traditional motivation factors accounted for an additional 24.8% of the variance, $F(5, 61) = 6.5$, $p < .0001$; therefore, the extended model accounted for a total of 33.3% of the variance in intent to teach online. Ease of use ($\beta = .56$, $p < .01$) and intrinsic motivation ($\beta = -.61$, $p < .001$) independently predicted intent to teach online.

The Extended TAM and Intent to Teach Online

The extended model, including facilitating conditions and the online motivation factors accounted for 46.5% of the total variance in intent to teach online. Ease of use, usefulness, and extrinsic motivation to teach online independently predicted intent to teach online. Moreover, regression analyses showed that ease of use, facilitating conditions, and intrinsic motivation to teach traditional courses significantly predicted intent to teach online (see Table 5 for the extended TAM regression analyses).

Table 5. Hierarchical Regression Analyses for Intent to Teach Online Predicted from the TAM, Facilitating Conditions, and Motivation Orientation for Online and Traditional Instruction

Step	Variables	Online Motivation				Traditional Motivation			
		β	R^2	ΔR^2	F	β	R^2	ΔR^2	F
Step 1	Ease of Use	.56**				.54**			
	Usefulness	-.32	.11	.09*	3.0*	-.22	.09	.09*	3.0*
Step 2	Ease of Use	.48*				.45*			
	Usefulness	-.40				-.25			
	Facilitating Conditions	.49**	.29	.24***	6.3***	.61***	.32	.24***	10.1**
Step 3	Ease of Use	.42*							
	Usefulness	-.41							
	Facilitating Conditions	.17**							
	Intrinsic Online	.32							
	Extrinsic Online	.55**	.43	.14***	6.6***				
	Intrinsic Traditional					-.46***			
	Schedule					-.10			
Unconfident					-.31	.47	.14**	8.7***	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

The Extended TAM and Interest in Offering Online Degree Programs

Hierarchical regression analyses using the extended TAM, which included facilitating conditions and either online motivation or traditional motivation, accounted for 51.4% and 55.3% of the variance in interest in offering online degree programs, respectively. Regression analyses showed that facilitating

conditions, intrinsic motivation to teach online, and intrinsic motivation to teach traditional courses predicted interest in online degrees (see Table 6 for the hierarchical regression analyses).

The Extended TAM and Faculty Acceptance of the Legitimacy and Value of Online Education

A series of hierarchical regression analyses predicted perceived prestige, employment opportunities, and graduate school opportunities using the extended TAM. The findings are presented below.

The extended TAM and perceived prestige of online degrees.

The original TAM did not significantly predict perceived prestige, but the extended TAM with online motivation orientation accounted for a total of 36.3% of the variance in perceived prestige, $F(5, 36) = 4.1$, $p < .01$. Also, results showed that online intrinsic motivation significantly predicted perceived prestige of online degrees ($\beta = -.19$, $p < .05$). Neither the original nor extended TAM model with traditional motivation orientation predicted perceived prestige of online degrees (see Figure 1 for descriptive data about faculty perceptions of the prestige of online degrees).

Table 6. Hierarchical Regression Analyses for Interest in Offering Online Degree Programs Predicted from the TAM, Facilitating Conditions, and Motivation Orientation for Online and Traditional Instruction

	Variables	Online Motivation				Traditional Motivation			
		β	R^2	ΔR^2	F	β	R^2	ΔR^2	F
Step 1	Ease of Use	.23				.26			
	Usefulness	-.12	.02	.02	.57	-.23	.03	.03	1.0
Step 2	Ease of Use	.10				.14			
	Usefulness	-.25				-.29			
	Facilitating Conditions	.65***	.38	.36***	10.0	.76***	.47	.44**	18.7***
Step 3	Ease of Use	.04							
	Usefulness	-.30							
	Facilitating Conditions	.45**							
	Intrinsic Online	.70**							
	Extrinsic Online	-.02	.43	.13**	9.7***				
	Intrinsic Traditional					-.36**			
	Schedule					.06			
Unconfident					-.12	.55	.08**	12.4**	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

The extended TAM and perceptions of online graduates' opportunities for employment.

The original TAM did not predict perceptions of job opportunities, but the extended model with online motivation orientation factors accounted for 27.6% of the variance, $F(5, 35) = 2.7$, $p < .05$, and the extended TAM with traditional motivation orientation factors accounted for 21.4% of the variance in faculty perceptions of online graduates' employment opportunities, $F(6, 62) = 2.8$, $p < .01$. Additionally, intrinsic motivation to teach traditional courses significantly predicted employment opportunity perceptions ($\beta = .35$, $p < .01$). Figure 1 depicts descriptive data about faculty perceptions of online graduates' job opportunities.

The extended TAM and perceptions of online graduates' opportunities to attend graduate school.

Neither the TAM nor the extended TAM with online or traditional motivation orientation factors predicted faculty perceptions of online graduates' opportunities to attend graduate school (see Figure 1 for descriptive data about faculty perceptions of online students' graduate school opportunities).

Discussion

Substantial research has used the TAM to explain technology use in a variety of settings (Argawal & Prasad, 1999; Lee et al., 2005; Martinez-Torres et al., 2008; Venkatesh & Davis, 2000). However, critical reviews of the TAM have revealed that additional predictors such as intrinsic motivation, enjoyment, competence, technology experience, and facilitating conditions bolster the TAM's explanatory capabilities (Davis et al., 1992; Gibson et al., 2008; Kim, 2008; Martinez-Torres et al., 2008; Venkatesh & Davis, 2000). However, few studies have explained technology use by higher education faculty using the TAM (Gibson et al., 2008; Kim, 2008).

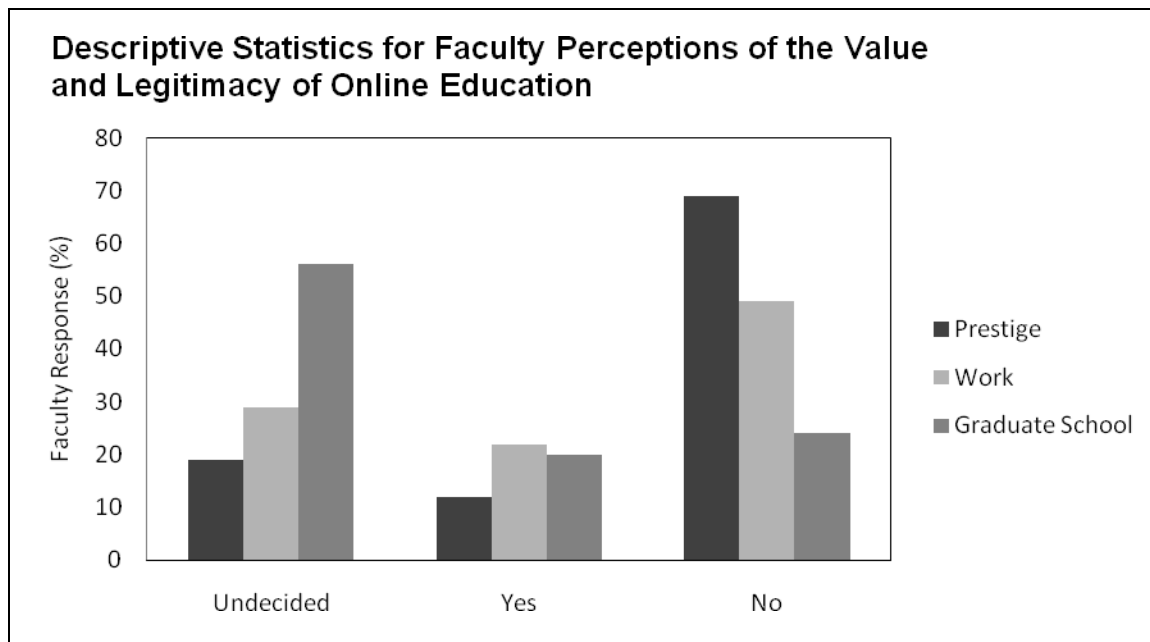


Figure 1. *Prestige = Do you think an online degree is as prestigious as a traditional degree?*
Work = Do you think that students who complete online degrees will have the same opportunities in the workforce as students who complete traditional degrees?
Graduate School = Do you think that students who complete online degrees will have the same opportunities to attend graduate school as students who complete traditional degrees?

In the present study, results demonstrated that the TAM predicted faculty members' intent to teach online, supporting hypothesis 1. Further analyses revealed that perceived usefulness did not predict intent to teach online; whereas, ease of use was independently predictive of intent to teach online. These findings are inconsistent with previous TAM research in which perceived usefulness independently predicted intent to teach online, while ease of use had less predictive power (Gibson et al., 2008; Kim, 2008).

Online teaching experience and the TAM has predicted ease of use and intent to teach online (Kim, 2008). The current study did not replicate those results or find support for hypothesis 2. Surprisingly, neither comfort with the CMS nor having taught online had a direct or indirect effect on intent to teach online. These results may be due to faculty members lacking confidence in their online teaching abilities or experiencing fear from the risks associated with online instruction (e.g., lack of departmental support or faculty acceptance).

Consistent with previous research, facilitating conditions enhanced the predictive power of the TAM (Cheong, Park, & Hwang, 2004; Kim, 2008; Venkatesh & Davis, 1996; 2000), which supports hypothesis

3. Universities often underestimate the need for faculty training and support to transition from traditional to online instruction (Alavi & Gallupe, 2003). Furthermore, Mulienberg & Berge (2001) cited lack of faculty training and support as common barriers to the adoption of online education. The findings in the current study demonstrate the need for universities to prioritize faculty training to encourage adoption of online instruction.

Davis and colleagues (1992) added intrinsic and extrinsic motivation to the TAM as predictors of intent to use technology. The present study extends previous research by examining online motivation factors that assist the TAM in predicting intent to teach online. Both intrinsic and extrinsic motivation to teach online improved the explanatory capability of the TAM, which supports hypothesis 4. Extrinsic motivation to teach online was the strongest predictor of intent to teach online, followed by intrinsic motivation, and then ease of use. These data support previous research suggesting that intrinsic motivation is an important factor in explaining technology use (Davis et al., 1992; Martinez-Torres et al., 2008). Findings suggest that faculty who intend to teach online courses are motivated not only because they prefer the schedule flexibility afforded online instructors, but because they also enjoy teaching online, prefer online communication with students, and are more motivated and responsive in their online classes. Additionally, faculty who intend to teach online find it easy; they are confident in their teaching abilities and believe that online students learn more in this delivery mode.

Examination of the TAM and motivations for teaching traditional courses revealed that the extended model was superior in explaining faculty members' intent or reluctance to teach online. Specifically, findings demonstrated that intrinsic motivation to teach traditional courses was the strongest independent predictor of reluctance to teach online; conversely, ease of use predicted intent to teach online. Put simply, faculty who find the CMS easy to use intend to teach online, but instructors who enjoy traditional courses, are more motivated and responsive in traditional courses, and believe that students learn more in traditional courses are those reluctant to teach online. Clearly, these findings provide unique insights into how motivation to teach in traditional formats deters faculty from embracing online teaching. To encourage reluctant faculty members to teach online, it may be necessary to demonstrate that online instruction can be a rewarding experience.

Facilitating conditions and motivation orientation predicted intent or reluctance to teach online over and above what was predicted by the TAM alone, which supports hypothesis 5. Results showed that faculty who desired flexible schedules and found online teaching easy and useful intended to teach more online courses in a given semester. In comparison, faculty members who were motivated to teach traditional courses intended to teach online only if they believed that online instruction was easy and necessary support was provided. However, instructors who did not plan to teach online were those who enjoyed traditional courses, were motivated and responsive in traditional courses, and believed that students learned more in traditional courses. The current study validates previous studies which explained intent to use technology using the TAM and intrinsic motivation to teach online (e.g., Davis et al., 1992; Martinez-Torres et al., 2008) and broadens the research to include an explanation for faculty resistance to online education by using motivation to teach traditional courses as a predictor of intended behavior.

Intention to use technology and sustained use of technology requires substantial commitment from the user. Current technology use has been predicted by intention to use technology in several studies (Davis et al., 1992; Martinez-Torres et al., 2008; Venkatesh & Bala, 2008; Venkatesh & Davis, 2000). However, these studies have examined how current technology use is moderated by intent to use. These models differ significantly from the model used in this study in two ways: 1) the extended TAM directly predicted use and 2) use was defined by a long-term commitment to use technology. Hypothesis 6 investigated whether the extended TAM predicted faculty members' interest in offering online degree programs. Developing and maintaining an online degree program requires faculty to commit to teaching several online courses in a strategic manner each semester. The results provided support for hypothesis 6 with intrinsic motivation to teach online as the strongest predictor of interest in offering online degree programs, followed by facilitating conditions. Intrinsic motivation has been proven a stronger motivator than extrinsic motivation for faculty participation in online education (Bonk, 2001; Maguire, 2005; Parker, 2003). In prior research, intrinsic motivation and facilitating conditions are moderated by perceived usefulness and intentional use in explaining current technology use (Davis et al., 1992; Martinez-Torres et al., 2008). The current research indicates that faculty who enjoy online instruction, are more motivated in online courses, prefer online interaction with students, and believe that students learn more in online courses are interested in offering online degree programs. Moreover, faculty who are interested in receiving internal and external training and peer evaluations of their courses are also interested in offering

online degrees in their disciplines. In contrast, faculty members who are intrinsically motivated to teach traditional courses are not interested in offering online degree programs.

Given that the extended TAM predicted intent to teach online and interest in offering online degree programs, it was further used in hypothesis 7 to explain faculty members' perceptions of the value and legitimacy of online education. Using the extended TAM, intrinsic motivation to teach online was the strongest predictor of prestige perceptions. In particular, faculty members who were intrinsically motivated to teach online thought that the online and traditional degrees were equally prestigious.

The extended TAM was also predictive of faculty members' perceptions of job opportunities for online and traditional degree graduates wherein intrinsic motivation to teach traditional courses was the strongest predictor of work opportunity perceptions. Specifically, faculty who enjoyed teaching traditional courses and believed that students performed better in traditional courses thought that traditional and online graduates would not have equal opportunities for employment in the workforce. Participants' perceptions are consistent with studies that have examined businesses' hiring practices, which have found that 4% of hiring managers were willing to accept a candidate with a fully online degree in comparison to 27% who were willing to accept graduates who completed both traditional and online courses and 96% who were willing to accept traditional graduates ([Adams, 2008](#); Adams & DeFleur, 2006; Adams, DeFleur, & Heald, 2007).

The extended TAM did not predict faculty perceptions of online and traditional degree students' opportunities to attend graduate school; therefore, the data provided only partial support for hypothesis 7. Adams (2008) found that very few graduate schools accept online degree students. Online degree graduates have less than a 10% chance of admittance into graduate schools (Adams, 2008; Defleur & Adams, 2004). Research also suggests that those who offer online bachelor degrees are reticent to admit online graduates into graduate level programs (Defleur & Adams, 2004). As the descriptive data shows (see Figure 1), participants in the current study differ little from faculty nationwide; there is a perceptual disparity in academia that online education is inferior to traditional education ([Giannoni & Tesone, 2003](#); [Yick, Patrick, & Costin, 2005](#); Stith, 2000; Ulmer, Watson, & Derby, 2007) and that perception is not only held by academics, but those in businesses as well (Adams, 2008).

Conclusions

Dedicated and committed faculty are essential to the success of online education and the extended TAM can be used to identify those faculty members. The extended TAM was predictive of faculty intent to teach online courses and interest in offering online degree programs, but findings were inconclusive related to faculty's perceptions of the merits of online instruction. Factors such as image and subjective norms, which were included in the most recent TAM might have proved useful in explaining faculty perceptions of the legitimacy and value of online education and should be included in future studies (Venkatesh & Bala, 2008). Further, those institutions interested in offering online degree programs should provide sufficient technical support and development opportunities for faculty as facilitating conditions was consistently predictive of technology use, as was intrinsic motivation to teach online. Finally, faculty members who are intrinsically motivated to teach traditional courses are resistant to online education. It may behoove institutions to focus online adoption efforts on faculty who are amenable to online education.

References

- Adams, J. (2008). Understanding the factors limiting the acceptability of online courses and degrees. *International Journal on E-Learning*, 7, 1-24. Retrieved from http://pilotmedia.com/adams/xPDF/improve_onlinedegrees.pdf
- Adams, J., & DeFleur, M. H. (2006). The acceptability of online degrees as a credential for obtaining professional employment. *Communication Education*, 55, 32-45.
- Adams, J., DeFleur, M. H., & Heald, G. (2007). The acceptability of online degrees in health hiring professions. *Communication Education*, 56, 292-307.

- Agarwal, R., & Prasad, J. (1999). Are individual differences germane to the acceptance of new information technologies? *Decision Sciences*, 30, 361-391.
- Alavi, M., & Gallupe, R. B. (2003). Using technology in learning: Case studies in business management programs. *Academy of Management Learning and Education*, 2, 139-153.
- Allen, I. E., & Seaman, J. (2005). Growing by degrees: Online education in the United States (Research Report No. 3). Retrieved from http://www.sloan-c.org/publications/survey/pdf/growing_by_degrees.pdf
- Allen, I. E., & Seaman, J. (2007). Online nation: Five years of growth in online learning (Research Report No. 5). Retrieved from http://www.sloan-c.org/publications/survey/pdf/online_nation.pdf
- Allen, I. E., & Seaman, J. (2010). Learning on demand: Online education in the United States, 2009 (Research Report No. 7). Retrieved from <http://www.sloan-c.org/publications/survey/pdf/learningondemand.pdf>
- Almeda, M. B., & Rose, K. (2000). Instructor satisfaction in University of California Extension's Online Writing Curriculum. *Journal of Asynchronous Learning Networks*, 4, 175-188. Retrieved from http://old.sloanconsortium.org/publications/jaln/v4n3/v4n3_almeda.asp
- Altschuler, G. (2001, August 5). The e-learning curve. *The New York Times*, pp. 13. Retrieved from <http://www.nytimes.com/2001/08/05/education/college-prep-the-e-learning-curve.html?pagewanted=1?pagewanted=1>
- Arbaugh, J. B. (2000). Virtual classroom characteristics and student satisfaction in internet-based MBA courses. *Journal of Management Education*, 24, 32-54.
- Bernard, R. M., Abrami, P. C., Lou, Y., Evgueni, B., Wade, A., Wozney, L., Wallet, P.A., Fiset, M., & Huang, B. (2004). How does distance education compare to classroom instruction? A meta-analysis of the empirical literature. *Meta-Analysis of Distance Education Studies*, 10, 63-96.
- Blin, F., & Munro, M. (2008). Why hasn't technology disrupted academics' teaching practices? Understanding resistance to change through the lens of activity theory. *Computers and Education*, 50, 475-490.
- Bonk, C. J. (2001). *Online Teaching in an Online World*. Bloomington, IN: CourseShare.com. Retrieved from http://www.publicationshare.com/docs/exec_summary-c.pdf
- Bower, B. (2001). Distance education: Facing the faculty challenge. *Online Journal of Distance Learning Administration*, 4. Retrieved from <http://www.westga.edu/~distance/ojdl/summer42/bower42.html>
- Cheong, J. H., Park, M. C., & Hwang, J. H. (2004). Mobile payment adoption in Korea: Switching from a credit card. Paper presented at the International Telecommunications Society (ITS) 15th biennial conference, September, Berlin, Germany. Abstract retrieved from http://userpage.fu-berlin.de/~jmueller/its/conf/berlin04/Papers/Hwang_paper.pdf
- Cheung, W., Chang, M. K., & Lai, V. S. (2000). Prediction of internet and World Wide Web usage at work: A test of an extended triandis model. *Decision Support Systems*, 30, 83-100.
- Choy, S. (2002). Nontraditional undergraduates. In: US Department of Education, National Center for Educational Statistics, Washington, DC: US Government Printing Office.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13, 319-339.
- Davis, F. D., Bagozzi, R., & Warshaw, P. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22, 111-1132.
- DeFleur, M. H., & Adams, J. (2004). Acceptability of online degrees as criteria for admission to graduate programs. *Journal of Computing in Higher Education*, 16, 150-163.

- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Giannoni, D. L., & Tesone, D. V. (2003). What academic administrators should know to attract senior level faculty members to online learning environments. *Online Journal of Distance Learning Administration*, 6. Retrieved from <http://www.westga.edu/~distance/ojdla/spring61/giannoni61.htm>
- Gibson, S. G., Harris, M. L., & Colaric, S. M. (2008). Technology acceptance in an academic context: Faculty acceptance of online education. *Journal of Education for Business*, 4, 355-359.
- Hartman, J., Dzuiban, C., & Moskai, P. (2000). Faculty satisfaction in ALNs: A dependent or independent variable. *Journal of Asynchronous Learning Networks*, 4, 231-244. Retrieved from <http://www.sloanconsortium.org/jaln/v4n3/faculty-satisfaction-alns-dependent-or-independent-variable>
- Hsu, C., & Lu, H. (2004). Why do people play online games? An extended TAM with social influences and flow experience. *Information and Management*, 41, 853-868.
- Kim, M. R. (2008). Factors influencing the acceptance of e-learning courses for mainstream faculty in higher institutions. *International Journal of Instructional Technology and Distance Learning*, 5, 29-44.
- Lee, M. K. O., Cheung, C. M. K., & Chen, Z. (2005). Acceptance of internet-based learning medium: The role of extrinsic and intrinsic motivation. *Information & Management*, 42, 1095-1104.
- Maguire, L. (2005). Literature review - Faculty participation in online distance education: Barriers and motivators. *Online Journal of Distance Learning Administration*, 8. Retrieved from <http://www.westga.edu/~distance/ojdla/spring81/maguire81>
- Maki, W., & Maki, R. (2002). Multimedia comprehension skill predicts differential outcomes of web-based and lecture courses. *Journal of Experimental Psychology*, 8, 85-98.
- Martinez-Torres, M., Marin, S. L. T., Garcia, F. B., Vazquez, S. G., Oliva, M. A., & Torres, T. (2008). A technological acceptance of e-learning tools used in practical and laboratory teaching, according to European higher education area. *Behavior and Information Technology*, 6, 495-505.
- Menard, S. (1995). *Applied logistic regression analysis*. Thousand Oaks, CA: Sage Publications.
- Muilenberg, L. Y., & Berge, Z. L. (2001). Barriers to distance education: A factor analytic study. *The American Journal of Distance Education*, 15, 7-22.
- Pankowski, P. (2004). Faculty training for online teaching. *THE Journal*. Retrieved from <http://thejournal.com/Articles/2004/09/01/Faculty-Training-for-Online-Teaching.aspx>.
- Parker, A. (2003). Motivation and incentives for distance faculty. *Online Journal of Distance Learning Administration*, 6. Retrieved from <http://www.westga.edu/~distance/ojdla/fall63/parker63.htm>
- Parry, M. (2009, August 31). Professors embrace online courses despite qualms about quality. *Chronicle of Higher Education*. Retrieved from: <http://chronicle.com/article/Professors-Embrace-Online/48235/>
- Peabody, Z. (2001, September 27). College education online: Pass? Fail? *Los Angeles Times*. Retrieved from <http://articles.latimes.com/2001/sep/27/news/tt-50356>
- Roca, J. C., & Gagne, M. (2008). Understanding e-learning continuance intention in the workplace: A self-determination theory perspective. *Computers in Human Behaviors*, 24, 1585-1604.
- Russell, G. (2005). The distancing question in online education. *Innovate*, 1(4). Retrieved from http://innovateonline.info/pdf/vol1_issue4/The_Distancing_Question_in_Online_Education.pdf
- Shea, P. (2007a). Bridges and barriers to teaching online college courses: A study of experienced faculty in thirty-six colleges. *Journal of Asynchronous Learning Networks*, 11, 73-128. Retrieved from <http://www.sloanconsortium.org/jaln/v11n2/bridges-and-barriers-teaching-online-college-courses-study-experienced-online-faculty-thi>

- Shea, P. (2007b). Study unearths what motivated RIT faculty to teach online. RIT Online Learning. Retrieved from http://online.rit.edu/about/newsletter/one_article.cfm?which=99
- Stith, B. (2000). Web-enhanced lecture course scores big with students and faculty members. THE Journal, 27, 20-22.
- Symonds, W. (2001, December 3). Giving it the old online try. Business Week. Retrieved from http://www.businessweek.com/magazine/content/01_49/b3760072.htm
- Ulmer, L. W., Watson, L. W., & Derby, D. (2007). Perceptions of higher education faculty members on the value of distance education. The Quarterly Review of Distance Education, 8, 59-70.
- US Department of Education, Office of Planning, Evaluation, and Policy Development. (2009). Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies. Retrieved from <http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>
- US Department of Education, National Center for Education Statistics. (2003). Distance education at degree-granting postsecondary institutions: 2000-2001 (NCES Publication No. 2003-017). Retrieved from <http://nces.ed.gov/pubs2003/2003017.pdf>
- Venkatesh, V. (1999). Creation of favorable user perceptions: Exploring the role of intrinsic motivation. MIS Quarterly, 23, 239-260.
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. Decision Sciences, 39, 273-304.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 2, 186-204.
- Venkatesh, V., & Morris, M. G. (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. MIS Quarterly, 24, 115-139.
- Western Interstate Commission for Higher Education. (2008). Knocking at the college door: Projections of high school graduates 1992-2022 (Publication No. 2A365). Retrieved from <http://www.wiche.edu/pub/11556>
- Yang, Y., & Cornelius, L. F. (2005). Preparing instructors for quality online instruction. Online Journal of Distance Learning Administration, 8, 12-31. Retrieved from <http://www.westga.edu/~distance/ojdl/spring81/yang81.htm>
- Yick, A. G., Patrick, P., & Costin, A. (2005). Navigating distance and traditional higher education: Online faculty experiences. The International Review of Research in Open and Distance Learning, 6. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/235/853>
- Young, J. (2000, February 18). Distance and classroom education seen as equally effective. The Chronicle of Higher Education, pp. A55. Retrieved from <http://wiredcampus.chronicle.com/article/DistanceClassroom/15897/>

Appendix: Faculty Acceptance of Online Degree Programs Survey

Demographics

Age

- a. 20-30 years old
- b. 31-40 years old
- c. 41-50 years old
- d. 51-60 years old
- e. 61 or older

Gender

- a. Female
- b. Male

College

- a. Business
- b. Humanities and Social Sciences
- c. Public Service
- d. Science and Technology
- e. University College

Job title

- a. Visiting Professor
- b. Lecturer
- c. Assistant Professor
- d. Associate Professor
- e. Professor
- f. Department Chair
- g. Assistant Dean
- h. Associate Dean
- i. Dean

Computer Use

How comfortable do you feel with using the computer?

- a. Not comfortable
- b. Somewhat comfortable
- c. Comfortable
- d. Very comfortable
- e. Not applicable

How comfortable do you feel with using internet based search engines such as Google, Bing, and Yahoo?

- a. Not comfortable
- b. Somewhat comfortable
- c. Comfortable
- d. Very comfortable

How comfortable do you feel with using internet based social networking programs such as My Space, Face book, Twitter, etc.?

- a. Not comfortable
- b. Somewhat comfortable
- c. Comfortable
- d. Very comfortable

Please rate how often you use the following programs/tools/software on the computer: Never, Occasionally, Often, Very often

- a. Word processing program such as Word
- b. Spreadsheet program such as Excel
- c. Presentation program such as Power Point
- d. Calendar program such as Outlook
- e. Email
- f. Internet

Previous Blackboard Use

Have you used Blackboard Vista before?

- a. Yes
- b. No

Have you taught a face-to-face class that was web-enhanced in which a website was available for students to use?

- a. Yes
- b. No

If so, how many?

- a. 1 class
- b. 2-4 classes
- c. 5-7 classes
- d. 7-10 classes
- e. 10 or more classes

Have you taught a hybrid course?

- a. Yes
- b. No

If so, how many?

- a. 1 class
- b. 2-4 classes
- c. 5-7 classes
- d. 7-10 classes
- e. 10 or more classes

Have you taught a fully online course before?

- a. Yes
- b. No

If so, how many?

- a. 1 class
- b. 2-4 classes
- c. 5-7 classes
- d. 7-10 classes
- e. 10 or more classes

How comfortable do you feel with Black Board Vista, if you have used it before?

- a. Not comfortable
- b. Somewhat comfortable
- c. Comfortable
- d. Very comfortable
- e. Not applicable

If you have not used Black Board Vista before, how confident are you that you could use it to teach a class?

- a. Not confident
- b. Somewhat confident
- c. Confident
- d. Very confident
- e. Not applicable

If you have taught web-enhanced, hybrid, or online classes, please rate how useful the following tools were in meeting your learning outcomes: Not useful, Somewhat useful, Useful, Very useful, Not applicable

- a. Announcements
- b. Assessments/Tests/Quizzes
- c. Assignments/Papers
- d. Discussion Board
- e. Chat
- f. Learning Modules
- g. Mailbox or Email
- h. Web-links/media files
- i. Syllabus
- j. Grades
- k. My progress
- l. My notes
- m. Technology Acceptance Model

Ease of Use.

Please use the following scale to indicate how easy the following are to use: Not easy at all, Somewhat easy, Easy, Very Easy

- a. How easy is it to find online education resources?
- b. How easy is it to become more skillful in using online educational technology
- c. How easy is it to get Blackboard Vista to do what you want it to do?

Perceived Usefulness.

How useful is educational technology for content delivery?

- a. Not useful
- b. Somewhat useful
- c. Useful
- d. Very useful

How will teaching online impact your teaching effectiveness?

- a. Not at all
- b. Less effective than face-to-face
- c. More effective than face-to-face

How compatible is online education with the way you teach your courses?

- a. Not compatible
- b. Somewhat compatible
- c. Compatible
- d. Very compatible

How effective is online education for student learning?

- a. Not effective
- b. Somewhat effective
- c. Effective
- d. Very effective

How appropriate is online education as the sole delivery mode for all degree course content?

- a. Not appropriate
- b. Somewhat appropriate
- c. Appropriate
- d. Very appropriate

Student Interest in Online Education

Do you think that some students are better suited for online education?

- a. Yes
- b. No

Open question

If so, who?

Please rate how motivated you think students are by the following reasons for completing an online degree: Not motivated, Somewhat motivated, Motivated, Very motivated

- a. Time constraints due to work responsibilities
- b. Time constraints due to home responsibilities
- c. Schedule does not offer classes during the day time when I want them
- d. Schedule does not offer classes during the evening when I want them
- e. Schedule does not offer classes on the weekend when I want them
- f. Commuting related issues such as wear and tear on car, gas, and mileage
- g. Enjoy taking online classes
- h. I make better grades in online classes than in hybrid or face-to-face classes
- i. I am more responsible in online classes
- j. I am more motivated in online classes
- k. I prefer online interaction with students
- l. I prefer online interaction with my professor
- m. Speed up the completion of my degree
- n. Find online classes easier than traditional classes

Please rate how motivated you think students are by the following reasons for completing a face-to-face degree: Not motivated, Somewhat motivated, Motivated, Very motivated

- a. My schedule is flexible enough to afford me attending face-to-face classes

- b. I have a reliable car and do not mind driving to school
- c. Schedule offers classes at times I want to take them
- d. I enjoy face-to-face classes
- e. I prefer face-to-face classes because of the interaction with students
- f. I prefer face-to-face classes because of the interaction with the professor
- g. I make better grades in face-to-face classes
- h. I am more responsible in face-to-face classes
- i. I am more motivated in face-to-face classes
- j. I find face-to-face classes easier than online classes

Faculty Motivations for Online and Traditional Instruction

Please rate how motivated you are by the following reasons for teaching online courses: Not motivated, Somewhat motivated, Motivated, Very motivated

- a. Time constraints due to other teaching responsibilities
- b. Time constraints due to research responsibilities
- c. Time constraints due to service responsibilities
- d. Time constraints due to home responsibilities
- e. My courses are scheduled at inconvenient times
- f. My courses are scheduled at inconvenient locations
- g. Commuting related issues such as wear and tear on car, gas, and mileage
- h. Enjoy teaching online classes
- i. Comfortable with Blackboard Vista
- j. Confident in my online teaching abilities
- k. Student evaluations will improve if I teach online
- l. Students desire online courses
- m. My students learn more in online classes than in hybrid or face-to-face classes
- n. I am more responsive to my students in online classes
- o. I am more motivated while teaching online classes
- p. I prefer online interaction with students
- q. I prefer online grading
- r. Financial incentive provided for online teaching
- s. Find online classes easier to teach than traditional classes

Please rate how motivated you are by the following reasons for teaching face-to-face courses: Not motivated, Somewhat motivated, Motivated, Very motivated

- a. My schedule is flexible enough to afford me to teach face-to-face classes
- b. I have a reliable car and do not mind driving to school
- c. I am scheduled to teach at times that are convenient for me
- d. I am scheduled to teach at locations that are convenient for me
- e. I enjoy face-to-face classes
- f. Not comfortable with Blackboard Vista
- g. Unconfident with my online teaching skills
- h. Student evaluations will suffer if I teach online
- i. Students desire traditional courses
- j. I prefer face-to-face classes because of the interaction with students
- k. Students learn more in face-to-face classes
- l. I am more responsive to students in face-to-face classes
- m. I am more motivated while teaching face-to-face classes
- n. I find face-to-face classes easier to teach than online classes

Faculty Acceptance of Online Degrees

Do you think that an online degree is as prestigious as a degree earned by taking face-to-face classes?

- a. Yes
- b. Undecided
- c. No

Do you think that students who complete online degrees will have the same opportunities in the work force as students who complete face-to-face degrees?

- a. Yes
- b. Undecided
- c. No

Do you think that students who complete online degrees will have the same opportunities to attend graduate school as students who complete face-to-face degrees?

- a. Yes b. Undecided c. No

Faculty Intent to Teach Online

How interested are you in teaching online courses?

- a. Not interested b. Somewhat interested c. Interested d. Very interested

How interested are you in your discipline offering an online degree completion program?

- a. Not interested b. Somewhat interested c. Interested d. Very interested

How interested are you receiving additional training at UHD to teach online?

- a. Not interested b. Somewhat interested c. Interested d. Very interested

How interested are you in receiving additional training from certification programs to teach online?

- a. Not interested b. Somewhat interested c. Interested d. Very interested

How interested are you in having your online courses peer evaluated?

- a. Not interested b. Somewhat interested c. Interested d. Very interested

How many courses would you teach online each long semester?

- a. 0 b. 1 c. 2 d. 3 e. 4

Support and Development Opportunities

If online degrees were offered at UHD, how important is the following to you: Not important, Somewhat important, Important, Very important

- a. 24/7 Black Board Vista support
- b. Black board Vista tutorials
- c. E-Library resources
- d. E-Library tutorials
- e. Virtual Writing Center
- f. Virtual Advising Center
- g. Virtual Student Services Center
- h. Virtual Students with Disabilities Center
- i. Faculty were trained in how to offer good online courses
- j. That the UHD online degree programs were recognized as being of high-quality
- k. That students completing online degrees had the same learning opportunities as face-to-face graduates
- l. That students completing online degrees had the same post-graduate opportunities as face-to-face graduates in terms of hiring opportunities and attending graduate school

Manuscript received 13 May 2010; revision received 26 Jul 2010.



This work is published under a Creative Commons Attribution-Non-Commercial-Share-Alike License
For details please go to: <http://creativecommons.org/licenses/by-nc-sa/3.0/us/>