

## Social Influence for Perceived Usefulness and Ease-of-Use of Course Delivery Systems

Demei Shen, James Laffey, Yimei Lin, and Xinxin Huang  
University of Missouri, Columbia

### *Abstract*

*This study explores the extent to which subjective norm beliefs of online learners shape perceptions of ease-of-use and usefulness for the use of course delivery systems. Subjective norm beliefs represent the influence that instructors, mentors, and peers have on students to use the course delivery system. The results show that instructor and mentor influences are significant contributors to students' perceived usefulness of the course delivery system. However, only mentor influence is significant to students' perceived ease-of-use of the learning system. These results indicate the importance of the instructors' roles in shaping impressions of the value of using the course delivery systems and the potential underutilization of peer influence to shape behavior in online courses.*

### **Introduction**

Flexibility for time and place make online learning an increasingly prevalent educational format worldwide (Berge, 1997). In the United States, according to a National Center for Education Statistics report (Waits & Lewis, 2003), 56% of all degree-granting post-secondary institutions offered distance education courses, and 12% of post-secondary institutions indicated that they planned to start offering distance education courses in the next 3 years. A survey by the Sloan Consortium (2005) showed the overall percent of post-secondary schools that identify online education as a long-term strategy grew from 49% in 2003 to 56% in 2005. For Associate's degree institutions, the percent grew from 58% in 2003 to 72% in 2005. In accordance with the growing usage of online education, researchers have been trying to build theory and develop effective approaches for research. Additionally, researchers have been drawn to implementation issues related to design, development, management, evaluation, and operations (Lee, Driscoll, & Nelson, 2004). Given that the acceptance and appropriation of the information technology systems used to deliver online distance learning create both opportunities and constraints for the value of online learning, and that understanding how students accept and appropriate learning systems is fundamental to generating strategies for making online learning effective, research on student acceptance of these systems is important to bringing about educational benefits.

One framework for studying user technology acceptance is the technology acceptance model (TAM) (Davis et al., 1989). TAM includes two key components, perceived ease-of-use and perceived usefulness, which have been shown to be determinants of the use of information systems. The TAM model has been tested across a wide range of computer settings and has been shown to be a robust predictor of computer use (Taylor & Todd, 1995; Venkatesh & Davis, 2000). A variety of empirical studies have found that TAM explains a substantial amount of the variance (typically about 40%) in intentions to use and usage behavior of technologies (Venkatesh & Davis, 2000). Consequently, better understanding the factors that influence perceived usefulness and perceived ease-of-use in online learning has potential to improve the design and implementation of learning systems.

Education is a social activity. Compliance with the requirements of others, conformity to the expectations of others, and identifying with the way others work are potentially key elements in determining educational activity, including usage of online learning systems. Fishbein and Ajzen's (1975) theory of reasoned action (TRA) suggests a framework for how these social norms of compliance, conformity, and identification may operate to influence behavior. They called these social influences "subjective norms" and showed that these norms, along with personally held attitudes, could be used to predict behavior. Subjective norm represents "perceived external pressures to use (or not use) the system" (Liker & Sindi, 1997, p. 152). The subjective norm of students is the pressure they feel to use the system from instructors, other students, or key others in the learning context. The construct of subjective norm represents whether students experience any social influence toward their use and appropriation of the online learning system. Unfortunately, even though TRA shows the importance of social attributions, relatively few researchers investigating the value of TAM for predicting technology use have attended to social influence as represented by subjective norms (Lee et al., 2003).

This report describes the extent to which subjective norm beliefs influence students' perceptions of ease-of-use and usefulness toward course delivery systems. The purpose of the study is to better understand how social influences shape perceived usefulness and perceived ease-of-use so as to enable design interventions and better implementation of online learning, which can lead to increased student acceptance and usage of course delivery systems in online education.

*Theoretical Framework:* According to Fishbein and Ajzen's (1975) TRA, people consider the implications of their actions before they decide to engage in a given behavior. TRA also describes human activity as rational and systematic and suggests that the information available is used in a reasonable way to arrive at a behavioral decision (Fishbein, 1980). Fishbein and Ajzen posit that one's behavior is determined by his or her intentions, which in turn, are determined by one's attitude toward the behavior and the subjective norm concerning the behavior. Subjective norm is the personal factor in the theory that represents the perceived influence of the social environment, referring to the social pressure exerted on the person to perform (or not perform) the behavior. Subjective norm has been shown to be a predictor of behavior (Bagozzi et al., 1992; Fishbein & Ajzen, 1975).

Researchers have begun to study the roles of instructors and peers in fostering effective online learning. For example, Pan, Sivo, and Brophy (2003) reported that subjective norms determined the frequency of using WebCT by students. Subjective norms from a person's superiors (i.e. employers or parents) have been shown to influence a choice to take an online course (Miller, Rainer, & Corley, 2003). Jung et al. (2002) studied undergraduate students enrolled in online courses and found that the instructor's presence and social interactions among students influenced students' motivation, course engagement, learning achievement, and attitudes about using online learning systems. Some researchers have focused on the role of peers and found that peers can be influential in shaping technology acceptance and usage behavior for online courses. Shin (2003) studied the influence of peers on achievement and attitudes toward online learning. Shin's study failed to show a relationship between peer influence and achievement, however, the findings revealed that students with a strong sense of their peers were more satisfied and more likely to persist with online learning.

Thus, TRA and empirical research on the social nature of online education both indicate a role for subjective norms in shaping behavior with online technology. Davis (1989) proposed TAM to explain the psychological interaction of a user with technology. He argued that users'

behavior can be understood through examining users' perceived ease-of-use and usefulness for a particular technology:

- Perceived usefulness is defined by Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p. 320).
- Perceived ease-of-use is defined as "the degree to which a person believes that using a particular system would be free from effort" (Davis, 1989, p. 320).

Early studies (Davis, 1986; Davis, 1989) showed, however, that TAM was incomplete in that it did not account for social influence in the adoption and utilization of new information systems. Davis (1986) noted that it is important to account for subjective norm, the construct denoting social influence. Researchers have used the constructs of perceived usefulness, perceived ease-of-use, and subjective norm to explain technology usage/acceptance for a variety of information systems including online learning. Miller, Rainer, and Corley (2003) conducted a study in an online class delivered by interactive modules, which was developed using Authorware. The course was about Microcomputer Applications, including the Microsoft Office package, as well as some basic computer concepts. At the end of the semester, the 66 students who took the course were administered a survey, which included measures for perceived ease-of-use, perceived usefulness, and subjective norm to predict engagement and participation. Data were analyzed with descriptive statistics and then analyzed with a multiple regression model. They reported that perceived ease-of-use and perceived usefulness both have a significant and positive relationship with the amount of time students spent in the course. Subjective norm, however, did not have a significant impact on engagement in the online course. In her dissertation, Lin (2005) developed and tested a unified model that integrated constructs including attitudes, behavior, and social influence. Her findings indicated that perceived usefulness was a significant factor for predicting intentions to use courseware, and perceived ease-of-use had an indirect effect on intentions to use courseware. Subjective norm had a strong positive effect on technology appropriation behavior; however, it did not influence students' intentions to use courseware. The failure to show a strong relationship between subjective norm and intentions to use courseware is not consistent with other research that conclude that under conditions of mandatory use subjective norm is an important predictor of user intention (Hartwick & Barki, 1994).

Lin et al. (2003) conducted a usability test of a digital government system. Their findings indicated that subjective norm is an important determinant of technology acceptance and behavioral intentions; in addition, individuals tend to take significant referents' opinions into consideration when assessing a technology's usefulness (i.e., subjective norm has significant positive effect on individual acceptance of technology). The results of this study showed that factors, such as perceived usefulness, may mediate the effect of subjective norm on technology acceptance.

Based on the findings of the aforementioned research, perceived usefulness, perceived ease-of-use, and subjective norm appear to be promising variables for explaining behavior in distance learning environments; however, more research is necessary to explicate the possible effect of subjective norm on perceived usefulness and perceived ease-of-use and how these variables may co-influence the usage of technology. Another issue to be taken into account is that students' behavior and attitudes may be influenced differently when interacting with members who hold different roles. Only a few researchers (Taylor & Todd, 1994; Lin, 2005) have tried to account for the differential influence of different referent groups on individuals. In

online learning environments, the influence may come from three referent groups: the instructor, peers, and additional supports (e.g., teaching assistants, mentors, etc.). Since online courses are technology-mediated, understanding how different groups influence students' attitudes toward technology, and in turn, change students' technology-use behavior may help us develop better tools and effective learning activities to support online teaching (Lin, 2005). Consequently, this study examines how impressions of the instructor, peers, and mentors affect students' perceptions of perceived usefulness and perceived ease-of-use for the course delivery system used in a distance education program.

## Method

*Context of the Study:* The distance education program examined in this study offers courses in the field of educational technology for educators and design and development professionals. The courses include interface design, digital media design and development, network technologies, and network applications. These courses are fully online and supported by mentors (teaching assistants) who provide both physical and virtual supports through telephone, email, discussion board, instant messaging, and face-to-face meetings.

*Participants:* The study included all students (N=187) in 19 credit-granting online courses during a semester for whom an email address could be obtained through the course registration lists. All 187 students were given the option of participating in this research project, and students who voluntarily completed the consent form became the sample of this study (n=108). The rate of return for the survey was 57.75%. The sample is representative of the students in the online distance education program being studied, but since the students of these educational technology courses are more familiar with technology than might be expected for the typical online student, caution is recommended in generalizing the findings to other groups of students. A description of the subjects including gender, age, and academic status is presented in Table 1.

**Table 1** *Description of the Subjects*

Demographic variable	N	%
Gender		
Female	62	57.6
Male	46	42.4
Age		
Under 20	5	4.7
21-25	23	21.2
26-30	33	30.6
31-35	11	10.6
36-40	5	4.7
41-45	8	7.1
46-50	15	14.1
Over 51	8	7.1

Academic Status		
Undergraduate	33	30.6
Master	58	54.1
Specialist	8	7.1
PhD	5	4.7
Other	4	3.5
<i>Total</i>	<i>108</i>	

*Procedure:* The participants were given the online survey for their courses at the 14th week of a semester. Students were asked to complete the survey and submit it electronically in approximately 4 weeks. They received two reminder emails to increase the rate of response.

*Instruments:* The survey items measuring subjective norm beliefs were modified from Taylor and Todd's (1995) instrument that examined subjective norm beliefs for two different referent groups, peers (reliability coefficient alpha = .92) and supervisors (reliability coefficient alpha = .80). The current study extended the framing of referent groups to be examined in the distance education program to "peers," "the instructor," and "mentors." Mentors are equivalent to teaching assistants and provide both technical and subject matter assistance across a variety of courses. An example of a subjective norm question is "The mentors want me to use the online system frequently." Students were asked to rate their level of agreement on a 7-point Likert scale where "1" represented strongly disagree and "7" represented strongly agree.

The dependent variables, perceived usefulness and perceived ease-of-use, were measured through the Technology Acceptance instrument developed and validated by Davis (1989). Each variable consists of six 7-point Likert scale items with "1" indicating strongly disagree and "7" indicating strongly agree. The reliability levels of both "perceived usefulness" and "ease-of-use" scales in the instrument were .96 and .97 (Lin, 2005), respectively. There are six items to measure each of the variables.

## Results

The analyses include Pearson's correlation and multiple regression. Responses from the questionnaires were gathered and entered into SPSS 12.0.1. Table 2 presents descriptive statistics and correlations for the data set. Significant relationships are found for all bi-variate associations except peer influence and ease-of-use. There are no multicollinearity problems according to the variance inflation factor and tolerance values in the SPSS output.

**Table 2** *Correlation and Descriptive Statistics for Variable*

Variable	Instructor influence	Mentor influence	Peer influence	Perceived usefulness	Perceived ease-of-use
Instructor influence	--	.641**	.557**	.606**	.292*
Mentor influence		--	.374**	.523**	.343**
Peer influence			--	.454**	.074
Perceived usefulness				--	.570**

Perceived ease-of-use					--
Mean	17.66	17.20	13.46	30.70	29.08
Standard Deviation	3.34	3.37	4.50	9.52	10.39

Note. \* $p < .05$ ; \*\* $p < .01$ .  $n = 108$

Table 3 shows the findings of the multiple regression analysis used to examine how well the influence of the instructor, mentors, and peers (i.e., subjective norms) explain students' perceived usefulness for the system. Results show that subjective norms accounted for 39.9% of the variance in perceived usefulness ( $R_{adj}^2 = .399$ ),  $F(3, 104) = 24.697$ ,  $p < .001$ . Instructor influence was significantly associated with perceived usefulness,  $t(104) = 3.394$ ,  $p < .01$ , and accounted for 10% of the variance in perceived usefulness not accounted for by other independent variables ( $pr = .316$ ). Instructor influence also uniquely accounted for 6.4% of the variance in perceived usefulness ( $sr = .254$ ). Holding other variables constant, as instructor's influence increased by 1 point, perceived usefulness was estimated to increase by 1.055 points (95% CI: .438, 1.671; Beta = .370). Mentor influence was also significantly associated with perceived usefulness,  $t(104) = 2.2920$ ,  $p < .05$ , and accounted for 3% of the variance in perceived usefulness not accounted for by other independent variables ( $pr = .177$ ). Mentor influence also uniquely accounted for 2.95% of the variance in perceived usefulness ( $sr = .172$ ). Holding other variables constant, as mentor influence increased by 1 point, perceived usefulness was estimated to increase by .633 of a point (95% CI= .085, 1.180; Beta = .224). Peer influence was not significantly associated with perceived usefulness,  $t(104) = 1.819$ ,  $p > .05$ .

**Table 3** Multiple Regression Analysis for Perceived Usefulness

Variable	B	SE	$\beta$	sr	95% Confidence Interval	
					Lower	Upper
Constant	-3.478	4.513			-11.714	4.758
Instructor Influence	1.055**	.311	.370	.254	.438	1.671
Mentor Influence	.633*	.276	.224	.172	.085	1.180
Peer influence	.347	.191	.164	.136	-.031	.726

Note.  $R$  Square = .416. Adjusted  $R$  Square = .399.

- $p < .05$ ; \*\* $p < .01$ .

Table 4 shows the findings of the multiple regression analysis used to examine how well the influence of the instructor, mentors, and peers explain students' ease-of-use for the system. Subjective norms accounted for 11.4% of the variance in perceived ease-of-use ( $R_{adj}^2 = .114$ ),  $F(3, 104) = 5.584$ ,  $p < .01$ . Instructor influence was not significantly associated with perceived ease-of-use,  $t(104) = 1.477$ ,  $p > .05$ . Mentor influence was significantly associated with perceived ease-of-use,  $t(104) = 2.252$ ,  $p < .05$  and accounted for 4.67% of the variance in perceived ease-of-use not accounted for by other independent variables ( $pr = .216$ ). Mentor influence uniquely accounted for 4.2% of the variance in perceived ease-of-use ( $sr = .205$ ). Holding other variables constant, as mentor influence increased by 1 point, perceived ease-of-use was estimated to increase by .823 of a point (95% *CI*: .098, 1.549; Beta = .267). Peer influence was not significantly associated with perceived ease-of-use,  $t(104) = -1.226$ ,  $p > .05$ .

**Table 4** Multiple Regression Analysis for Perceived Ease-of-use

Variable	B	SE	$\beta$	sr	95% Confidence Interval	
					Lower	Upper
Constant	8.353	5.502			-2.559	19.624
Instructor Influence	.608	.412	.196	.134	-.208	1.425
Mentor Influence	.823*	.366	.267	.205	.098	1.549
Peer influence	-.310	.253	-.134	-.112	-.811	.191

Note. R Square = .139. Adjusted R Square = .114.

\*  $p < .05$ ; \*\*  $p < .01$ .

## Discussion

The findings show the mean influences of instructors and mentors to be substantially higher than those of peers. Additionally, the regression results show that instructor and mentor influence are significant factors that impact students' perceived usefulness of the course delivery system, while only mentor influence is significantly associated with perceived ease-of-use of the system. Interestingly, in both regression analyses, peer influence is not a significant factor. This result indicates that in fully-online courses where face-to-face interactions are not required, peers may not have much influence on one's attitudes and behavior toward system usage. This finding may reflect that the instances of online learning represented in the study fail to use collaboration and interdependence among students as learning strategies for substantial parts of the courses. However, there may exist other explanations for the limited influence of peers, such as individual differences or learning style preferences. Mentors, on the other hand, can influence students

because students often seek help from them. This finding emphasizes the importance of the availability of mentors in distance education programs.

The findings also show that instructors may influence students' perceived usefulness but not perceived ease-of-use on the technology they use in learning. One possible explanation is that instructors usually deliver the content to students and affect students' motivation to use the system but may not provide much support for how to use the systems, such as helping students solve technical problems. Further research may help explore the reasons for these relationships through examining additional data sources such as the different types or nature of conversations between students and instructors and among students.

*Importance of the Study:* Technology use is an essential part of online learning, and influences the success of online courses. Interactions with remote teachers and other students are made possible by the technology used to deliver the classes. Thus, an examination of students' perceptions of technology and factors that influence the perception has potential to build new knowledge for improving online education. The importance is twofold: theoretically and practically.

Although there are studies of technology adoption in online learning environments (Grando, Alshare, & Kwun, 2005; Lin, 2005; Miller, Rainer, & Corley, 2003; Ndubisi & Chukwunonso, 2004), few studies have focused on the social nature of online learning and how social pressure influences students' perceptions of ease-of-use and usefulness of the technology. This study addresses this gap and advances current theory on technology acceptance by showing that different roles have differential impact on technology acceptance in online distance learning.

Practically, higher education programs are recognizing that students are choosing online learning and are seeking best ways to implement online learning. For example, a study of online learning in nursing education found that students selected online courses because online distance learning best fit their circumstances (Leasure, Davis, & Thievon, 2000). In that study no differences in student outcomes were found between the traditional educational settings and online learning. Similarly in research on MBA education, Arbaugh (2000) found that how the instructors exert their instructional influence in online classrooms is the primary determinant of student learning and argues for increased and improved faculty development for helping instructors develop skills and strategies. The findings of the study reported in this article suggest that mentors and instructors significantly influence students' perception of ease-of-use and usefulness toward the course delivery systems. This emphasizes the importance of the role of course leadership in helping students appreciate the learning system. As a result, educators may consider experimenting with better strategies for supporting online learners. For example, providing support via mentors could be a feasible and effective way. In addition, further research on how mentors influence online users is necessary. Further, to bring the benefits of the social nature of learning to the online classroom educators may need new approaches to help establish social influence among students. For instance, including activities that require interaction and interdependency among students may foster collaboration and social capital among students. The need for collaboration and development of social capital may foster more peer influence and support for students' adoption of technology.

*Limitations of the Study:* This study explores how social influences shape online learners' perceptions toward usage of course delivery systems. Social influences were defined as online learners' subjective norm beliefs about instructors, mentors, and peers. The subjective norms examined in the current study are the social influences from within the learning environments; future studies may also want to examine other social influences such as colleagues, friends, and

family who are external to the technology system. Another limitation of this study is that it examined one online learning program and there is considerable variety in the way that online learning is implemented across disciplines and institutions. Therefore, although statistically significant relationships are reported, caution is recommended in generalizing these results to other contexts. In addition, although this study included both graduate and undergraduate students and students with varying levels of prior experience in online learning, the sample size did not permit robust statistical examination of possible effects of prior experience and status. Differences among students in prior experience or goals may have moderating influences upon how the social nature of the class influences attitudes toward technology and differences in online learning experience may directly contribute to their attitude toward technology. The possible roles of prior experience and status deserve further study. The results reported here show that the social nature of the online learning course plays a role in the use of the technology, which mediates that learning, however, much research is need to articulate how the social influences associate with other influences and under what circumstances the social beliefs are more or less influential.

## References

- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84, 888-918.
- Arbaugh, J. B. (2000). How classroom environment and student engagement affect learning in internet-based MBA courses. *Business Communication Quarterly*, 63(4), 9.
- Bagozzi, R. P., Davis, F. D., & Warshaw, P. R. (1992). Development and test of a theory of technological learning and usage. *Human Relations*, 45, 659-686
- Berge, Z. L. (1997). Computer conferencing and the online classroom. *International Journal of Educational Telecommunications*, 3(1), 3-21.
- Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results*. Unpublished doctoral dissertation, MIT Sloan School of Management, Cambridge.
- Davis, F. D. (1989). Perceived usefulness, perceived ease-of-use, and user acceptance of information technology. *MIS Quarterly*, 13, 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35, 982-1003.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Grandon, E., Alshare, K., & Kwun, O. (2005). Factors influencing student intention to adopt online classes: A cross-cultural study. Retrieved December 20, 2005, from <http://delivery.acm.org/10.1145/1050000/1047853/p46-grandon.pdf?key1=1047853&key2=4988412211&coll=GUIDE&dl=GUIDE&CFID=50725129&CFTOKEN=77202820>
- Hartwick, J., & Barki, H. (1994). Explaining the role of user participation in information system use. *Management Science*, 40(4), 440-465.
- Jung, I., Choi, S., Lim, C., & Leem, J. (2002). Effects of different types of interaction on learning achievement, satisfaction, and participation in web-based instruction. *Innovations in Education and Teaching International*, 39(2), 153-162.
- Leasure, A. R., Davis, L., & Thievon, S. L. (2000). Comparison of student outcomes and preferences in a traditional vs. World Wide Web-based baccalaureate nursing research course. *Journal of Nursing Education*, 39, 149-154.
- Lee, J.S., Cho, H., Gay, G., Davidson, B., & Ingraffea, A. (2003). Technology acceptance and social networking in distance learning. *Educational Technology & Society*, 6(2), 50-61.

- Lee, Y., Driscoll, M. P., & Nelson, D. W. (2004). The past, present, and future of research in distance education: Results of a content analysis. *American Journal of Distance Education*, 18(4), 225-241.
- Liker, J. K., & Sindi, A. A. (1997). User acceptance of expert systems: A test of the theory of reasoned action. *Journal of Engineering and Technology Management*, 14, 147-173.
- Lin, C., Hu, PJ-H., & Chen, H. (2003). Technology implementation management in law enforcement: COPLINK system usability and user acceptance evaluations. Retrieved February 11, 2006, from [http://www.diggov.org/dgrc/dgo2003/cdrom/PAPERS/hci\\_usability/lin\\_coplink.pdf](http://www.diggov.org/dgrc/dgo2003/cdrom/PAPERS/hci_usability/lin_coplink.pdf)
- Lin, Y. (2005). *Understanding students' technology appropriation and learning perceptions in online learning environments*. Unpublished doctoral dissertation, University of Missouri, Columbia.
- Miller, M., Rainer, R. K., & Corley, J. K. (2003). Predictors of engagement and participation in an on-line Course. *Online Journal of Distance Learning Administration*, 6(1).
- Ndubisi, N. O., & Chukwunonso, N. C. (2004, July). On-line learning adoption intention: Comparing the predictive power of two competing models. Proceedings of HERDSA conference, Miri, Sarawak, Malaysia.
- Pan, C. S., Sivo, S., & Brophy, B. (2003, April). The use of a course management system in the light of the technology acceptance model: A student perspective. Paper presented at 8th Annual Teaching in the Community Colleges Online Conference, Honolulu, HI.
- Shin, N. (2003). Transactional presence as a critical predictor of success in distance learning. *Distance Education*, 24(1), 69-86.
- Sloan Consortium (2005). Retrieved Feb. 2005, from <http://www.sloan-c.org/resources/survey.asp>.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6(2), 144-175.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46, 186-204.
- Waits, T., & Lewis, L. (2003). *Distance education at degree-granting postsecondary institutions: 2000–2001* (NCES 2003–017). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

## Appendix

## Zone Experience Study 2nd Questionnaire

Direction: In this questionnaire, rating scales with strongly disagree-strongly agree are the end points. Remember there are no right or wrong answers, just answer as accurately as possible. Please use the scale below to answer the questions. For example, if you strongly agree with the statement, circle 7; if you strongly disagree, circle 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you.

	Strongly Disagree			Neutral			Strongly Agree
	1	2	3	4	5	6	7
1. My <b>INSTRUCTORS</b> expect me to use <the course management system (CMS)>							
2. My <b>INSTRUCTORS</b> want me to use <the CMS> frequently							
3. Generally speaking I try to do what <b>INSTRUCTORS</b> think I should do							
4. The <b>ZONE MENTORS</b> expect me to use <the CMS>							
5. The <b>ZONE MENTORS</b> want me to use <the CMS> frequently							
6. Generally speaking I try to do what the <b>ZONE MENTORS</b> think I should do							
7. My <b>CLASSMATES</b> expect me to use <the CMS>							
8. My <b>CLASSMATES</b> want me to use <the CMS> frequently							
9. Generally speaking I try to do what <b>CLASSMATES</b> think I should do							
10. Using <the CMS> helps me learn about & accomplish the course requirements quickly							
11. Using <the CMS> helps me to be a productive student							
12. Using <the CMS> enhances my effectiveness on the course coursework							
13. Using <the CMS> makes it easy to do the course coursework							
14. Using <the CMS> improves my academic performance							
15. I find <the CMS> a useful tool for my learning in this course							
16. Learning to use <the CMS> is easy for me							
17. <The CMS> is flexible to interact with							
18. I find it's easy to get <the CMS> to do what I want to do							

19. It's easy for me to become skillful at using <the CMS>
20. My interaction with <the CMS> is clear and understandable
21. <The CMS> is easy to use