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## Do American and Korean Instructors Hold Same Perceptions of Arguments For and Against Online Teaching? An Exploratory Study

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#### ABSTRACT

This study compared instructors' perceptions of arguments for and against online teaching in the United States and South Korea and examined the impact of selected demographical variables on these perceptions. Results showed that American and Korean instructors had similar perceptions about online teaching. However, the two groups significantly differed on the extent of agreement or disagreement with the statements included in the study. Several of the demographic variables that were examined in the study had significant impacts on participants' responses.

#### Keywords

Online teaching, instructors' perceptions, cross-cultural comparisons

#### INTRODUCTION

In the past few years, popularity of online classes has grown exponentially. Factors such as decreased federal, state, and local funding; increased educational costs (including space, staffing, and transportation); more local and global competition; changed students' expectations and backgrounds; and greater student and community engagement in continuous lifelong learning were some of the reasons that motivated colleges and universities to engage in online initiatives (Gaytan and Slate, 2002). In addition, the integration of technology into the learning environment of schools has the potential to create a student-centered and technology-based environment that allows students to have greater control and responsibility for the learning process (Gaytan and Slate, 2002). Furthermore, Karelis (1999) noted that online courses hold great opportunity for postsecondary education with lower average per-student costs, while delivering pedagogically sound and even individually-tailored instruction. In 2003, 500,000 online courses were available in the USA (Lundgren and Nantz, 2003). Several predictions state that nearly 50 percent of all higher education students are expected to take some classes over the Internet (Tessone et al., 2003). Considering the benefits and the figures that predict an increasing number of online classes in the future, it is expected that the number of instructors willing to teach online classes or to switch from the face-to-face environment to the online environment will increase accordingly.

This situation calls for a better understanding of the beliefs and perceptions of instructors toward online teaching. Understanding instructors' perceptions may help educational institutions to devise mechanisms to motivate instructors to teach online classes. Even though there have been some attempts to determine instructors' attitudes and concerns toward online teaching (Wilson, 2001, Gerlich and Wilson, 2004), we still do not know whether these attitudes are universal and hold across different cultures. In order to make distance learning truly "distant," it is important to know perceptions of instructors from other parts of the world. In addition, very little is known about the variables that may influence instructors' perceptions about online education. No study, to the best of our knowledge, has been conducted to compare factors that may influence perceptions of instructors from different countries and cultures.

The purpose of this study was to explore and compare perceptions of arguments for and against online teaching among university professors from the United States and South Korea. These two countries were selected because they share some

similarities in terms of technology innovation; yet, they differ in terms of cultural characteristics (Hofstede, 1997). As such, instructors' perceptions of online teaching might be affected by cultural characteristics. Additionally, based on previous research, the study examined the impact of variables such as gender, discipline, rank, teaching style, prior online teaching experience, teaching mode, self-reported knowledge about the online environment, and self-reported computer knowledge on instructors' perceptions. More specifically, the following research questions were formulated:

- RQ1: Are there significant differences in perceptions of arguments for and against online teaching between American and Korean instructors?
- RQ2: What are the impacts of selected variables on instructors' perceptions?

#### **BACKGROUND PERSPECTIVES**

Instructors who teach online courses encounter a number of issues. Some of the most-frequently cited are difficulty in understanding the characteristics and needs of online students; difficulty in adapting teaching styles to consider the needs of the students; administrative overhead in collecting and returning work; increased workloads; compensation issues; inconvenience of communication without the benefit of face-to-face interaction; and lack of support mechanisms to help online students overcome challenges with technology (Kleinman and Entin, 2002; Willis, 2001). These issues do not seem to be exclusive to the US educational environment. In South Korea, for example, few schools have formal administrative support for online teaching in terms of finance, course design, and tenure and promotion policies. Despite the popularity of online courses and high Internet adoption rate (Chung and Lim, 2002), the number of online courses available in Korea is still lower than expected. The adoption of online courses by instructors is mostly voluntary with very little support and training opportunities (Chung and Lim, 2002). Even though the US and Korea share certain characteristics, such as leadership in technology innovation, we believed that cultural differences between them could be used in explaining any difference in perceptions between American and Korean instructors.

Some factors that may influence instructors' perceptions, other than national culture, are individual differences. Individual differences have been known to influence perceptions and behaviors in various contexts. Although, few studies specifically examined the effect of individuals differences on instructors' perceptions toward online teaching (Wilson, 2001; Gerlich and Wilson, 2004), more investigation on this topic is still needed. The following paragraphs discussed factors that could influence instructors' perceptions.

While not conclusive, gender seems to be a factor that influences perceptions toward online teaching. Lundgren and Nantz (2003) found that female students significantly showed more favorable attitudes toward online courses than male students. Gerlich and Wilson (2004), on the other hand, found that male instructors, compared to female instructors, were more likely to teach online courses. The lack of studies on gender differences necessitates inclusion of this variable in the current study.

It appears that teaching disciplines have effects on the adoption of online teaching. Various disciplines may require different pedagogical methodology, which may affect the adoption of online courses (Chen, et al., 2003). Korean business and social sciences disciplines had higher rates of adoption of online classes (Chung and Lim, 2002). Thus, discipline impact on instructors' perceptions was investigated in this study.

In research related to adoption of Internet technology, instructors' rank is a variable that has not been thoroughly studied. An exception is the study by Garret et al. (2000) which reported that academic rank did not influence the intention to adopt a web site for the class. However, they also found that computer knowledge was a significant factor that affected the adoption of web site by instructors. A number of studies have focused on the relationship between computer experience and attitude toward computers. The results, however, have been mixed (Woodrow, 1994; Levine and Donitsa-Schmidt, 1998). We also believe that a person may know how to use a computer for specific software applications but may not have knowledge about using the Internet and related technologies. Therefore, the impacts of academic rank and instructors' knowledge about computers on the online teaching environment were examined.

Teaching style may affect the way in which instructors design their web-based courses. Grasha (1996) defined four clusters that group different teaching styles. Formal authority is defined as a cluster in which the instructor presents information and students receive knowledge. Demonstrator refers to a teaching style in which instructors encourage students to observe processes as well as content. It emphasizes modeling and demonstration. In the facilitator cluster, instructors design activities, social interactions, or problem solving situations that allow students to practice the process of applying course

content. Finally, the delegator cluster places much of the learning burden on the students. In this cluster, instructors provide complex tasks that require student initiative. Based on these four clusters, we studied whether self-reported measure of teaching style makes a difference in instructors' perceptions of online classes.

Despite of the administrative encouragement from some higher education institutions, many instructors are still reluctant to use the Internet for delivering course materials and are even resistive to efforts to increase the use of online courses (Lundgren and Garret, 2002-2003). Garrett et al., (2000) stated that, in spite of the training related to the use and integration of information technology into courses, very few instructors intended to implement the technology soon. To investigate this issue, the impact of prior experience of online teaching environment was examined.

Some researchers suggest a complementary relationship between online and face-to-face courses. Rather than replacing one with the other, many institutions are expanding their online programs (Holden and Mitchell, 1993; Christensen, 2002). Although students perceived that they learned more through face-to-face and were more satisfied with face-to-face than with online course (National Center for Educational Statistics, 2003), empirical studies do not show significant differences between online and face-to-face course performance (Thirunarayanan and Perez-Parado, 2001-2002; Peterson and Bond, 2004). In this study, the effects of instructors' preferred method of teaching (face-to-face, online, and hybrid) was examined.

#### **RESEARCH METHODS**

#### Survey Questionnaire

The survey questionnaire consisted of two sections. The first section requested various types of demographic information, including gender, discipline, rank, tenure status, and teaching style. The second section included seven statements that focused on measurement of instructors' perceptions toward online teaching (Table 1). These statements were adapted and modified from previous studies by Lundgren and Nantz (2003), Gerlich and Wilson (2004), and Garret et al. (2000). The survey instrument was developed, reviewed for content as well as readability, and pilot tested. Feedback from our colleagues was provided and the survey was modified accordingly. For the Korean sample, back translation procedure (Brislin, 1986) was used to ensure that the meaning of the questions was not lost during the translation process. As a result, minor changes were made to the Korean version of the instrument. Instructors responded to those statements on a five-point Likert scale, which ranged from strongly disagree to strongly agree.

#### Samples, Data Collection, and Statistical Techniques

Two-hundred copies of the survey questionnaire were administered to convenience samples of college instructors in the United States and South Korea during Summer and Fall 2004. For the American sample, the survey was distributed to instructors who represented various disciplines at a Midwestern university. In Korea, one of the authors distributed the survey to instructors from different disciplines at two universities. Ninety-two American instructors (response rate was 46 percent) and 41 Korean instructors completed the survey (response rate was 20 percent). SPSS statistical software was used to compute frequencies, means, and percentages. In addition, T-test and ANOVA analyses were used to test for significant differences between the two samples.

#### DATA ANALYSIS

Fifty-six percent of the American instructors were males, compared to 83 percent of the Korean sample. Twenty percent and 24 percent of American instructors, compared to 56 percent and 20 percent of the Korean sample, were teaching in business and hard-science disciplines, respectively. Fifty-six percent of American instructors, compared to 24 percent of the Korean sample, were teaching in social sciences. Seventeen percent and 31 percent of the American instructors, compared to 22 percent and 36 percent of the Koreans, were instructors and assistant professors. Thirty-two percent and 18 percent of the American sample, compared to 14 percent and 26 percent of the Korean sample, were associate and full-professors. Forty-three percent of American instructors, compared to 15 percent of Korean instructors, indicated that they have taught online classes.

#### **RESULTS OF THE STUDY**

Results of the study are presented in two sections. The initial section provides the answer for the first research question. This research question was answered by using t-test. The second section includes the answer for the second research question. This research question was answered by using the ANOVA procedure.

#### A Comparison of American and Korean Instructors' Perceptions

There was an agreement between American and Korean instructors on all arguments (statements) included in the survey, as shown in Table 1. However, the two groups significantly differed on their extent of agreement or disagreement with such statements. American and Korean instructors alike disagreed with the following statements—"The online class environment is more effective;" "Whatever I deliver in a face-to-face class, I would deliver it in an online class;" and "Online setting is the most appropriate method of teaching in today's environment." However, American instructors, compared to Korean instructors, had a stronger disagreement with such statements.

	USA	A (n1=92)	Korea	(n2=41)	t-test		
Statement	Mean	Std. Deviation	Mean	Std. Deviation	Т	Sig. (2- tailed)	
1. The online class environment is more effective	2.19	.982	2.68	.648	-3.376	0.001	
2. An online class would require more of my effort than a face-to-face class	3.87	1.008	3.83	.758	0.259	0.796	
3. Whatever I deliver in a face-to-face class, I would deliver it in an online class	2.19	1.150	2.56	.781	-2.151	0.034	
4. I am aware that I may lose some of the advantages of face-to-face classes if I teach an online class	4.37	.722	4.09	.684	2.152	0.034	
5. Online setting is the most appropriate method of teaching in today's environment	1.95	.835	2.49	.754	-3.685	0.000	
6. For students who are taking a class online, it would be more difficult than taking the class in a traditional face-to-face environment	3.24	.964	3.35	.863	-0.643	0.522	
7. It would be easy to cheat and plagiarize in an online course	3.58	1.012	3.94	.497	-2.742	0.007	

Table 1. T-test Results

Nevertheless, both American and Korean instructors were more likely to agree with the following statements – "I am aware that I may lose some of the advantages of face-to-face classes if I teach an online class," and "It would be easy to cheat and plagiarize in an online course." While American instructors strongly believed in the former statement (t = 2.152, p = 0.034), Korean instructors had a stronger support for the latter statement. (t = -2.742, p = 0.007). Finally, American and Korean instructors alike supported the following statements—"An online class would require more of my effort than a face-to-face class," and "For students who are taking a class online, it would be more difficult than taking the class in a traditional face-to-face environment."

#### Variables Affecting Instructors' Perceptions

This section discusses perceptions of American and Korean instructors regarding statements included in the questionnaire for a number of variables including gender, discipline, rank, and teaching style. Additional variables that were tested included prior experience of teaching online, teaching mode, self-reported knowledge about online environment, and self-reported computer knowledge. ANOVA was used as the basis for determination of statistically significant differences. A summary of findings is presented in Table 2. Perceptions of Korean instructors were affected only by instructors' preferred teaching modes (face-to-face, online, or hybrid) and self-declared knowledge about computers. Perceptions of American instructors seemed to be influenced by all of variables except discipline and rank.

Gender did not have any significant effect on Korean instructors' perceptions. Male and female instructors had similar perceptions about online teaching. Male American instructors, however, were more likely to support the statement—"I am

aware that I may lose some of the advantages of face-to-face classes if I teach an online class" (p=0.007) than female American instructors. Discipline was a variable that did not influence instructors' perceptions. The rank of the instructor did not have any significant effect on both American and Korean instructors' perceptions.

Regardless of teaching style, instructors from Korea and the USA supported the statement—"I am aware that I may lose some of the advantages of face-to-face classes if I teach an online class." However, there were significant differences in means for American instructors, depending on their teaching style. For instance, pairwise comparisons indicated that there were significant statistical differences between formal authoritative and facilitator styles (p=0.028) and between formal authoritative and delegator styles (p=0.05). In addition, American instructors disagreed with the statement—"Online setting is the most appropriate method of teaching in today's environment." Yet, there were significant differences in means between instructors with formal authoritative and delegator styles (p=0.024), between instructors with demonstration and facilitator styles (p=0.027), and between demonstration and delegator styles (p=0.008).

Previous experience teaching online courses did not seem to influence perceptions of online teaching among Korean instructors. In contrast, American instructors who taught online courses, compared to those who did not, were more likely to disagree with the statement—"The online class environment is more effective" (p=0.001) and the statement—"Online setting is the most appropriate method of teaching in today's environment" (p=0.002). However, they were more likely to support the statement "I am aware that I may lose some of the advantages of face-to-face classes if I teach an online class" (p=0.037).

The preferred teaching mode (face-to-face, online, and hybrid) turned out to be a variable that significantly impacted American and Korean instructors' perceptions for several of the items included in the survey. Korean instructors who selected face-to-face as their preferred teaching mode, compared to those who preferred the hybrid mode, were more likely to disagree with the statement "The online class environment is more effective" (p = 0.026). Similarly, significant differences in means were found for American instructors' perceptions. American instructors who preferred face-to-face environment were more likely to disagree with the statement—"The online class environment is more effective." (p=0.026). In the same way, there were significant differences in means for American instructors' perceptions between those who preferred face-to-face environment and those who preferred the hybrid mode (p=0.030) with respect to the following statement—"Whatever I deliver in a face-to-face class; I would deliver it in an online class." Additionally, the pairwise comparison indicated that there were significant differences between means for instructors' perceptions between instructors who preferred face-to-face and hybrid modes (p=0.00) for the following statement—"Online setting is the most appropriate method of teaching in today's environment." Instructors who preferred the face-to-face environment were more likely to disagree with the previous statement. Finally, American instructors who preferred online environments, compared to those who preferred the hybrid mode, were more likely to support the statement—"I am aware that I may lose some of the advantages of face-to-face classes if I teach an online class" (p=0.036).

Self-reported measure of knowledge of the online environment was a variable that influenced only the American respondents. American instructors who indicated that their knowledge of the online environment was poor to fair were more likely to disagree with the statement—"The online class environment is more effective" (p=0.021). Self-reported measure of instructors' knowledge about computers influenced perceptions in both countries. American instructors who indicated that their knowledge about computers was poor to fair were more likely to disagree with the statement—"The online class environment is more effective" (p=0.021). Self-reported measure of instructors' knowledge about computers was poor to fair were more likely to disagree with the statement—"The online class environment is more effective" (p=0.002). Korean instructors who rated their knowledge as "good-to-excellent" were more likely to support the statement that "It would be easy to cheat and plagiarize in an online course" (p=0.05).

#### DISCUSSION AND CONCLUSIONS

This study examined perceptions of American and Korean instructors on a number of statements related to online teaching. Even though both countries differ in terms of cultural characteristics (Hofstede, 1997), American and Korean instructors had similar perceptions of arguments for and against online teaching. However, the two groups significantly differed on their extent of agreement or disagreement with the statements.

	1. Gender		2. Discipline		3. Rank		4. Teaching Style		5. Prior Experience of Online Teaching		6. Teaching Mode		7. Knowledge of Online Environment		8. Knowledge of Computers	
Statement	USA	Korea	USA	Korea	USA	Korea	USA	Korea	USA	Korea	USA	Korea	USA	Korea	USA	Korea
1. The online class environment is more effective	NS	NS	NS	NS	NS	NS	NS	NS	0.001 <sup>b</sup>	NS	0.000 <sup>b</sup>	0.026 <sup>b</sup>	0.021 <sup>b</sup>	NS	0.002 <sup>b</sup>	NS
2. An online class would require more of my effort than a face-to-face class	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3. Whatever I deliver in a face-to-face class, I would deliver it in an online class	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.030 <sup>b</sup>	NS	NS	NS	NS	NS
4. I am aware that I may lose some of the advantages of face-to-face classes if I teach an online class	0.007 <sup>b</sup>	NS	NS	NS	NS	NS	0.019 <sup>b</sup>	NS	0.037 <sup>b</sup>	NS	0036 <sup>b</sup>	NS	NS	NS	NS	NS
5. Online setting is the most appropriate method of teaching in today's environment	NS	NS	NS	NS	NS	NS	0.002 <sup>b</sup>	NS	0.002 <sup>b</sup>	NS	0.00 <sup>b</sup>	NS	NS	NS	NS	NS
6. For students who are taking a class online, it would be more difficult than taking the class in a traditional face-to-face environment	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7. It would be easy to cheat and plagiarize in an online course	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.050 <sup>b</sup>

Table 2. A Summary of ANOVA Results<sup>a</sup>

a. NS: Not Significant

b. P- value according to ANOVA procedure.

According to Hofstede's (1997) classification, American culture can be characterized, compare to Korean culture, as being high in uncertainty avoidance, individualism, and masculinity, and low in power distance. Therefore, Americans may be more prone to risk taking, willing to assume changes, and challenge new ideas. Korea, on the other hand, exhibits a culture that is less prone to risk taking and, in general terms, may avoid changes. The incorporation of new technology, in this case distance learning technology, brings structural changes (Laudon and Laudon, 2004) and uncertainty. However, the results of this study showed that Korean instructors appeared to have more favorable perceptions of online teaching when compared to American professors. This was shown by the extent of agreement or disagreement with the statements included in the survey. Even though American instructors, compared to Korean instructors, are willing to take risks (high uncertainty avoidance); yet, they would challenge the idea of using online environment (low power distance). As a result, these two cultural dimensions seemed to have a mixed effect on American instructors' perceptions. Therefore, there were factors, other than national cultural differences, such as individual differences and organizational culture that had stronger impacts on instructors' perceptions in both countries. Additionally, people in Korea are known to be early adopters of information technology, particularly the Internet (ASIA Times, 2004; Kim, 2004), which may minimize potential impacts of the national culture on instructors' perceptions of online teaching.

As related to instructors' perceptions of online teaching between the American and Korean instructors, significant differences existed for several demographic variables. Gender, teaching style, prior experience in teaching online, preferred teaching mode, knowledge of computers, and knowledge of online environment influenced American instructors' perceptions for some statements. Preferred teaching mode and knowledge about computers impacted Korean instructors' perceptions on some statements.

Both Korean and American instructors agreed with the generally recognized weaknesses of the online class environment. However, the degree to which they agreed differed. Instructors who preferred online and hybrid teaching modes showed less support for arguments against online teaching. Instructors may admit weaknesses of online teaching; yet, once they experience it, they tended to increase their knowledge of the online environment and, in turn, understand the merits of online teaching. For example, those instructors who taught online courses had stronger disagreement with statements such as "The online class environment is more effective," and "Online setting is the most appropriate method of teaching in today's environment."

American instructors indicated that lack of time and knowledge about the Internet environment were the major reasons for not teaching online classes. Korean instructors mentioned lack of university support, lack of knowledge, and lack of monetary incentives as the major reasons for not teaching online classes. Other reasons for not teaching online classes that were identified by the instructors in both countries included the lack of compatibility of some disciplines with online teaching environment and the lack of demand for such classes. Conversely, American instructors who had taught online classes indicated career development and administration pressure as the major incentives. Also, instructors in both countries indicated that attracting more students to their programs and enjoying teaching online were among the reasons for teaching online classes. Even though extra support such as training, technical staff, and monetary incentives might help in developing positive perceptions toward online courses, some instructors still believed that online teaching environment does not fit well with the methodology of their disciplines.

Instructors were asked to respond to a question in the survey that was related to their main concerns about online teaching. American and Korean instructors alike indicated that the loss of rich context from face-to-face interaction was their main concern. Additionally, assessment issues such as integrity, reliability, and inability of verifying who actually does the work were among highlighted concerns. Other concerns were the difficulty of integrating field trips and lab experiments into online classes and technology-related issues.

To take full advantage of online teaching, educational institutions may want to critically evaluate the concerns mentioned by the instructors, recognize individual differences among instructors, and plan accordingly. In order to recognize differences in teaching styles and disciplines, institutions must provide training on various features that promote interaction between students and instructors, so that instructors can utilize their teaching styles and overcome the shortcomings of online instruction. Finally, while the majority of American instructors reported that their preferred method of teaching was "face-to-face", the majority of Korean instructors reported "hybrid" method as their preferred format. Therefore, migration from face-to-face environment to online through the hybrid method is something that educational institutions should consider.

#### LIMITATIONS AND FUTURE RESEARCH

Although the current study had several interesting findings, it is not without limitations that need to be considered when interpreting the results. For example, the use of small sample sizes and the use of self-reported information are primary limitations. The findings of this study provide some opportunities for future research. Exploring other factors that may influence instructors' perceptions of online teaching may greatly help in devising mechanisms to facilitate and promote the online environment. Also, this study should be repeated in the future to see whether instructors' perceptions about online teaching have changed overtime. Finally, a comparison of instructors' perceptions toward online environment with students' perceptions should be of interest to researchers.

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