

Online Technology in Social Studies Methods Courses: An Investigation of the Effectiveness of a Suggested Program in Developing Communication Skills in the College of Education at Kuwait University

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Abstract

The current quasi-experimental study sought to investigate the effectiveness of a suggested program in developing online communication skills in social studies methods courses among a sample of students at Kuwait University. Participants were undergraduates from the college students of education (n=110). The randomly selected sample consisted of (50) female students in the control group and (60) female students in the experimental group, for summer semester during the academic year 2015-2016 enrolled in the social studies course, Two sections of social studies were taught to the experimental and control groups, the experimental groups was taught the online communication skills, whereas the control groups was taught the communication skills via traditional method of instruction. To achieve the purpose of the study, a online communication skills test was used before and after treatment to measure the equivalence of the two groups with regard to their level of online communication skills. Analysis of Covariance (ANCOVA) T-test was used to find out if there was any statistically significant differences at ($\alpha=0.05$) in the students online communication skills. The results of the study showed that there were statistically significant differences at ($\alpha=0.05$) in favor of the experimental group on the overall in the online communications skills level.

Keywords: Online technology, Social studies, online communication skills.

Introduction and Theoretical Framework

A study by Eyadat (2009) stated that the early years of the 21st century witnessed a rapid increase in popularity of the online learning concept, particularly among the growing number of students holding full-time jobs for whom it became a top priority. This was supported by Boyd (2005), Aberasturi and Kongrith, (2006), who noted that students enrolled in an online graduate degree program were typically working professionals, whereas Werf & Sabatier (2009) concluded that there is a growing trend towards part time study, whereby students attend classes online at several different colleges and universities. Findings of the Speak Up 2012 online research project illustrated a significant increase in approval of online learning over the past few years, not only among students but also educators, parents and policymakers, the data indicating that the years 2008-2010 witnessed significant increases among the numbers of administrators (39%) and parents (500%) whose vision for the ultimate school would incorporate online classes.

Results of a recent survey by the Babson research group "Tracking online education in the United States" revealed a growth rate of 6.1% (400,000 students), in the number of higher education students taking at least one online course, while Allen & Seaman 2012, reported an unprecedented high (32.0%) of students taking at least one online course. In the view of Bonk (2006), this indicates a continued significant increase in future online learning figures in the U.S. particularly since online enrollment rates now exceed those of traditional classroom enrollment. Consequently, many states, organizations, and institutions are working on strategic plans to implement online education, in response to these changes in enrollment demands.

In their report, Tschida & Sevier (2013) quoting the National Center for Education Statistics (2009), noted an estimated increase of 65% in the number of K-12 public school student enrollments in technology-based distance education courses in the two years from 2002-03 to 2004-05. Given this data, the upward trend in online course popularity seems set to continue and doubtless, the coming years will see an exponential increase in both the number and diversity of courses available. Contemporary researchers, including Moore, Deane, & Galyen (2011); & Sussman, & Dutter, (2010); Atchley, Wingenbach, & Akers (2013); Anderson et al (2012); Clark (2013); Allen & Seaman (2013); also Nash (2014) and Yan Nie (2015) agree that integration of some online course delivery concept is a necessity in the higher education of the future. The comprehensive adoption of a massive online course program would impact significantly on the delivery methodology in the realms of both professional development and higher education programming.

Salyers, Carter, Myers & Barrett (2014); Bichsel, (2013) and Fisher, (2009) all agree that institutions will need to demonstrate a considerable degree of flexibility in attitude and thinking when planning the incorporation of online courses, regarding learner entry, delivery methods, time and place, as well as instructional pace.

It is the expectation that on line learning in their university environment will make a positive contribution to students' effective acquisition of knowledge and provide the added advantage of collaboration, thus facilitating their collaborative learning processes and improving, rather than diminishing pedagogy. Bichsel (2013) commented on the ECAR study of e-learning in that same year, noting that e-learning was of major interest to the majority of institutions, even if at the level of some rather than all departments. The availability of online courses had become ubiquitous, with at least several courses being offered online by over 80% of institutions and more than 50% offering a significant number.

Related Literature:

Bass & poole 2003; Stone & Chaney, 2011; Nagel, 2009; Lee. & Young, 2013, Al Hanna, 2013; O' Hara & Pritchard, 2104; Degirmenci 2014; Ya Ni, 2015, Literature resulting from research done during the previous decade has indicated benefits from online technology encompassing enhanced reading instruction, positive impact on language acquisition and learning, general learning support, active student motivation, and promotion of student-centered learning.

Focusing on a systematic examination of the research literature from the period 1996 - July 2008, the US Department of Education carried out a meta-analysis identifying over 1,000 empirical studies of online learning. Results of the analysis in 2010 illustrated significant differences in favor of online learning, with students in online learning conditions performing somewhat better than those receiving traditional face-to-face instruction. Patrick & Powell (2010) conducted a study on the Effectiveness of Online Teaching and Learning. Two sections of the same course were investigated, one online and asynchronous and the other face-to-face, with the same instructor teaching both sections and using the same instructional materials. Variables were gender, age, learning preferences and styles, media familiarity, effectiveness of tasks, course effectiveness, test grades, and final grades. Results were unequivocal with 96% of students finding the online course to be either as effective as or more effective than instruction by the traditional face-to-face method.

Liu (2007), conducting a quasi-experimental study comparing the effects of online vs. traditional instruction on graduate students' learning, during a course for K-12 school teachers on Research Methods in Education. Results indicated a significantly higher performance by the experimental group in the majority of quizzes and the final test. A review by Hiltz, Ahang and Turoff (2002) compared the documentation of 19 empirical studies comparing the learning effectiveness of asynchronous online courses with that of equivalent face-to-face courses. Objective grading of content learning in addition to survey responses from faculty and students provided overwhelming evidence of online course effectiveness superiority over traditional course delivery.

Contemporarily with the extending interest in distance learning, many researchers including Anderson, Boyles, & Rainie, 2012, Whitworth, & Berson 2003; and Werf & Sabatier 2009, examine the projected changes in the field of higher education. The exponential growth and resources offered by information technology, and the expansion of online education in particular, has prompted many universities to reconsider their roles and responsibilities in the realization that higher learning is now pervasive, no longer restricted by the physical boundaries of the graduate school. Some researchers were of the opinion that by the end of the second decade of this century higher education will have changed irrevocably, with teleconferencing the accepted norm and distance learning the channel to access inexpert resources. As the growth in demand for higher education worldwide exceeds international student mobility, there will be continued rapid growth in the number of institutions offering comprehensive online courses.

According to the Center for Distance Learning at Kuwait University online courses have been available since 2001, offering three courses in 2001/2002, and 11 scheduled courses in the first semester of the 2003/2004 academic year. In view of the general acceptance and increasing use of online instruction, it is incumbent upon educators to assess the learning effectiveness of online classes compared to traditional classes. Although recognized that within the field of social studies education an important area of debate and investigation is the use of electronic technology to enhance student learning, few studies have been conducted at Kuwait University to assess its effectiveness in the specific field of the social studies curriculum course. There is therefore, a particularly acute need for research within the field of social education studies and technology. The present study serves two purposes, primarily to investigate the effects of online course based learning among College of Education Students at Kuwait University, and to develop their online communication skills. The study is the first of its kind in the field of social education. The research aimed to answer the following question:

Are there any statistically significant differences ($\alpha=0.05$) in the online communication skills among Kuwait university students that can be attributed to using the suggested electronic technology program?

Rationale of this study

In Kuwait, little empirical data is available about the extent of preparation of social studies teachers to use online courses. There has been no systematic research investigating the methods of the social studies faculty in the use of online integration technology, therefore we need to update our knowledge in the field of online technology methodology in social studies courses. The present study aims to illustrate either the utilization of online based instruction by College of Education social studies teachers improves the classroom-learning environment, and increases students' technological fluency and digital literacy.

Methodology:

Design and procedure

The quasi-experimental research presented in this study was conducted by the Curriculum and Instruction department at Kuwait University, during the social studies curriculum course for the summer semester of the academic year 2015/2016. The social education course comprised two sections both taught by the same instructor, the class meeting five times a week for 50 minute sessions for a ten-week intensive course.

The same content and materials were used for both experimental and control groups. In both the experimental (online) and control group (traditional classroom), the dependent variables of learning performance were pre-tested and post- tested. Participants were randomly assigned to the two groups to ensure experiment validity.

Participants:

Participants in this study were 110 students- 50 males and 60 females- at the Kuwait University, representing all the undergraduate students enrolled in the social studies course and chosen randomly using the cluster sampling method during the summer semester of the academic year 2014/2015. This course was comprised of two sections, one randomly assigned as the control group (50 students) and the second assigned as the experimental group (60 students).

To ensure the equivalence and homogeneity of the two groups (control and experimental), T-test of independent samples was used at the beginning of the study (results are presented in table 1 below).

Table 1: results of T-test of independent samples used at the beginning of the study

Group	N	Mean	SD	Standard Error	DF	T-value	P
Control	50	3.00	1.20	0.2349	108	-0.63	0.53
Experimental	60	3.04	1.19	0.2256			

The results of the t-test of independent samples show that there was no significant difference between communication skills of the experimental group and that of the control group ($t_{108}=-0.63, P=0.53$). This indicates that the two groups were equivalent and homogenous with regard to their online communication skills before starting the experiments. Thus, any significant change in the students' online communication skills would be attributed to the difference in the suggested program.

Instrument:

Atwelve-item **online communication skills** instrument was developed to measure students' online communication skills in relation to the social studies course. On a Likert-type scale ranging from 1(strongly disagree) to 5(strongly agree), students were asked to rate their agreement with the items, which were worded positively. A higher score on these items indicates more online communication skills in the social study education course. For a list of these items, please see Appendix A.

The instrument went through two stages of validity verification. In the first stage, the survey items were submitted to a panel of six instructional technologists. The panel's task was to rate each item for clarity and usefulness in measuring learners' attitudes toward online communication skills in the social studies course. Based on the panel's recommendations and suggestions, necessary changes were made to the survey. The second stage began three weeks prior to the end of the semester during which the study was conducted. The survey was administered to a randomly selected sample of 20 students who were enrolled in the social studies course. These students, who were later excluded from the sample used in the study, were asked to rate the survey items for clarity of expression. Based on students' feedback, a final version of the survey was prepared. The internal consistency of the instrument was determined two weeks prior to the end of the semester using a sample of 40 students (22 females and 18 males) enrolled in the social studies course. This sample of students was also excluded from the sample used in the study itself. The calculated coefficient alpha reliability for the online communication skills scale was 0.85. This figure suggests that the instrument is suitable to measure students' online communication skills in the social studies course. In order to collect data, the instrument was handed to students during the last week of the semester.

The suggested social studies course program:

The experimental group of the social studies course was taught in a flexible (mixed) mode by the instructor who completed a workshop on developing web-based course during the first semester of the year 2012. The instructor worked on developing a web-based version of the social studies course using Blackboard Learning and Community Portal System, an authoring environment, which utilizes asynchronous (Bulletin, e-mail) and synchronous(chat) communication tools. Face-to-face lectures of five class hours per week were supplemented by a variety of web-based materials including an extensive collection of interactive, collaborative practice materials, an extensive set of PowerPoint slides available as a supplement to the textbook and extensive files of repeatable practice quizzes. Online communication was set up to support the assessments: these consisted of a portfolio, which followed the development process of the web-based materials and led the web-based course as a final product. As part of the development cycle, students were asked to get feedback from fellow students or external sources by using e-mail and chat rooms. The chat rooms were also available for other forms of discussion (e.g., for advice and help).

Results:

To answer the research question, the researcher calculated the means and standard deviations of students' online communication skills scale and presented them in Table 2.

Table 2: Means and standard deviations of the students' online communication skills on the post test

	Groups			
	Experimental		Control	
Mean	SD	Mean	SD	
4.43	0.98	3.10	1.25	

Table 2 shows differences in the online communications skills between the control and the experimental groups. To determine the significance of these differences and since the study is quasi-experimental, analysis of covariance (ANCOVA) was conducted, and the results are represented in Table 3

Table 3: Analysis of covariance (ANCOVA) for students' online communication skills on the post test

Source of variance	Sum of squares	df	Mean square	F	p.	Eta square
Group	30.12	1	30.12	30.90	.004	22%
Treatment	64.20	1	64.20	71.33		
Error	108.45	117	.90			
Total	202.78	119				

Table 3 shows significant differences between the experimental group and the control group of students' online communication skills, in favor of the experimental group (see table 2).

Discussion and Conclusions:

In spite of current researchers' interest in the study of online learning courses, there is a dearth of research available on the relationship between learners' online communications skills and electronic programs. This study sought to measure learners' online communication skills in a social studies course. By measuring learners' perceptions, the study attempted to find whether electronic programs promote online communication skills among students.

The descriptive results of this study indicated that overall there was a positive perception of improved telecommunication skills among them as a result of online interaction in the electronic programs course. This valuable finding, which aligns with the findings of Patrick and Powell, 2010, and Liu, 2005, was exemplified by the result that above 77% of the learners strongly agreed or agreed on the following points: electronic programs encourage students to develop communication skills, also that online communication skills with others encouraged them to learn more.

In addition, students were able to direct their questions and concerns to the instructor online and at any convenient time. Moreover, through online interaction with students and instructor, students were able to get help on topics that needed more explanation, online interaction with the instructor helped students to ask questions they might not have asked otherwise. In addition, through online interaction with other students, learners were able to share ideas and concerns regarding the course. Learners felt that online interaction in the course was going to be reflected on their final grades in the course and online interaction with students and instructors stimulated learners to think about the course material in new ways.

Based on this finding, one can conclude that in order to promote learning in a Web-based course, students need to be encouraged to participate in online activities that enable interaction. For example, students can participate in discussion boards, email, asynchronous conferencing, chatting, and clusters. This finding supports those of a number of relatively recent studies. (Anderson, Boyles, & Rainie, 2012; Lawton, 2013; Werf & Sabatier, 2009)

In general, we can attribute this finding to the ability of this program to make students feel more responsible for studying, feel more involved in the class, and improve their discussion skills in class. Finally, since Arabic literature lacks research in electronic technology and its utilization in all aspects of students' learning, the researcher recommends conducting further studies in developing other skills, and in teaching different subjects at different levels.

In conclusion: In light of the recent growth of online education and its impact on higher education, more and more institutions of higher education plan to integrate online technology into their settings, therefore, it is imperative to social studies teachers to incorporate instructional practices that are student centered. By focusing on students, teachers are able to encourage student interest, which translates into increased student communications skills to learn. In addition, the challenges of designing effective online learning environments will continue for all nationalities. As we move toward a global economy, the need to provide effective Online-learning environments across cultures will be increasingly important.

Recommendations:

This study adds up to the growing field of literature on online learning and the following theoretical and practical recommendations can be suggested.

Theoretical Recommendations

- Future research should investigate a larger sample of universities in Kuwait .
- Administrators should take the initiative to point out the positives of participation to the faculty, as this study points out online instruction could help improve communication between faculty and students, and encourage students to turn in assignments that are more reflective.
- A follow-up quantitative study focusing on examining factors that influence faculty members to use online course in their curriculum , include faculty demographics, specifically age and gender, class size, and institutional support, and the barriers that exist which make the use of the online courses difficult is also recommended.

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Appendix A

Online communication skills

Using the following scale, please indicate your agreement with each of the items that follow by circling the number that best describes your belief about online interaction in the social studies course:

Scale:

5=Strongly Agree, 4=Agree, 3=neither Agree nor Disagree, 2=Disagree, 1=Strongly Disagree

1. I usually receive online feedback from the instructor about 5 4 3 2 1 questions and concerns I post online.
2. I can direct my questions and concerns to the instructor 5 4 3 2 online at any convenient time.
3. Online interaction with the instructor helped me to ask 5 4 3 2 questions I might not have asked otherwise.
4. Through online interaction with other students, I can share 5 4 3 2 ideas and concerns regarding this course.
5. Online interaction with others encourages me to learn more. 5 4 3 2 1
6. Online interaction with students and instructor helped me 5 4 3 2 1 to learn the course material.
7. My interaction with the online course material helped me 5 4 3 2 1 to understand what I learn.
8. Online interaction with students and instructor stimulates me 5 4 3 2 1 to think about the course material in new ways.
9. Through online interaction with students and instructor, I can 5 4 3 2 1 get help on topics that need more explanation to understand.
10. I feel the online interaction that takes place in this course will 5 4 3 2 1 be reflected positively on my final grade in the course.
11. I feel the online interaction in this course will make a new 5 4 3 2 experience for me that I have not gone through before.
12. I think my online interaction in this course has been more than 5 4 3 2 1 any other face-to-face interactions I have had in other courses.