

# Use of Online Chat Room for a Hybrid Format Research Course in Nursing Graduate Program

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## Introduction

Online teaching is becoming a norm, though students come to online courses with varying preparations (Distler, 2015). How to create an interactive virtual environment on the Internet for helping student's preparations of online courses is a challenge (Distler, 2015). Online chat room may have advantages to provide a virtual communication space similar to face-to-face modalities for promoting knowledge learning and helping student's preparation of tests by online interactive activities (Choudhury & Gouldsborough, 2012). The purpose of this study is to examine the association between performance of online chat rooms (i.e. total score of chat room posting, total number of posting, total number of question, total number of answer, total number of incorrect posting, and total number of posting that exceeding 140 letters with space) and three online test scores of a hybrid format research course among nursing graduate students in the southeastern United States.

## Methods

- Data collection:** A nine weeks chat room transcripts of a hybrid format (i.e. 80% online, 20% offline) research course for 28 nursing students in master and doctor of nursing practice programs on a southeastern United States university's website from August 25, 2015 to November 16, 2015 were captured. The lectures of the course have been opened online every Tuesday and an online chat room has been opened for one week following lectures of the week in the website. Students earn points for posting a question about the lectures and for answering other student's questions. In order to enhance the students' ability to present succinct ideas in limited space, a limit for each posting is set as 140 letters and spaces. Personal background variables such as age, gender race, working status, previous experiences of any type of research course and online social media such as twitter and snapchat, number of year between registering current program and the most recent degree educational program were measured by a online survey.
- Statistics analysis:** Descriptive statistics for the personal background variables were performed. Spearman Rank Correlation for all continues variables and Kruskal-Wallis Test for pairwise comparisons were performed due to the small sample size.

Table 1: Descriptive analysis of personal background variables, performance of chat room, and online tests (n = 28)

Categories	Characteristics	Mean (SD)	Range	Total Number of Participant (%)
Age		34.8 (8.6)	24-52	
Gender				
	1. Female			25 (89.3)
	2. Male			3 (10.7)
Race				
	1. White/Caucasian			18 (64.3)
	2. Asian			5 (17.9)
	3. Black or African American			4 (14.3)
	4. American Indian and Alaska Native			1 (3.6)
Work Status				
	1. Work full time			15 (53.6)
	2. Work part time			11 (39.3)
	3. Do not work			2 (7.1)
Previous Experiences of Research Course				
	1. Yes			16 (57.1)
	2. No			12 (42.9)
Previous Experiences of Online Social Media				
	1. Yes, all the time			8 (28.6)
	2. Yes, I have done a little			6 (21.4)
	3. No, I did not know what Chat Room was			6 (21.4)
	4. No, I heard about it, but never used.			8 (28.6)
Years Between Current Program and Last Degree Educational Program				
	1. Less than 2 years			7 (25.0)
	2. More than 2 years but less than 5 years			12 (42.9)
	3. More than 5 years			9 (32.1)
Total Score for Chat Room Posting (maximum 27 points)		24.9 (2.5)	17-27	
Total Number of Posting		25.7(4.9)	19-40	
Total Number of Question		12.0 (3.1)	9-21	
Total Number of Answer		12.5 (2.9)	9-19	
Total Number of Incorrect Posting		.4 (.6)	0-2	
Total Number of Posting that Exceeding 140 Letters with Space		2.9 (1.7)	0-6	
Online Test 1 (maximum 27 points)		24.7(2.4)	18-27	
Online Test 2 (maximum 20 points)		18.4 (1.5)	14-20	
Online Test 3 (maximum 28 points)		25.4 (1.9)	19-28	

SD= standard deviation

## Results

- The average age of the participants was 34.8 (SD ± 8.6) years. The majority of the participants were female (89.3%), White/Caucasian (64.3%), full-time employed (53.6 %), have previous experiences of research courses (57.1%), and have more than 5 years gap between the current program and the most recent degree education program (32.1%). Only 28.6% of the participants use online social media all the time.
- The total score for chat room posting was positively correlated with online test 3 ( $r = .451, p = .016$ ). The total number of incorrect posting was negatively correlated with online test 2 ( $r = -.442, p = .018$ ) and online test 3 ( $r = -.445, p = .018$ ).
- Those participants who have used online social media all the time have the higher mean score of chat room posting comparing to those who did not know what chat room was ( $F_{3,28} = 8.63; p = .040$ ).
- Those participants who have done a little online social media in previous have the higher mean score of online test 2 comparing to those who heard but never used online social media ( $F_{3,28} = 11.74; p = .005$ ).

Table 2: Correlation between age, performance of chat room, and online tests (n = 28)

Variables	1	2	3	4	5	6	7	8	9	10
1. Age	1.00									
2. Total Score for Chat Room Posting	-.175	1.000								
3. Total Number of Posting	-.053	.168	1.000							
4. Total Number of Question	.089	.262	.778**	1.000						
5. Total Number of Answer	.159	.271	.574**	.186	1.000					
6. Total Number of Incorrect Posting	.034	-.246	.008	-.242	.276	1.000				
7. Total Number of Posting that Exceeding 140 Letters with Space	-.187	-.182	.345	.236	.183	.070	1.000			
8. Online Test 1	-.054	-.087	.147	.175	-.057	-.139	.103	1.000		
9. Online Test 2	-.191	.082	-.054	.112	-.268	<b>-.442*</b>	-.095	.427*	1.000	
10. Online Test 3	.039	<b>.451*</b>	.332	.361	.232	<b>-.445*</b>	-.040	.392*	.577**	1.000

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

Table 3: Kruskal-Wallis test of previous experiences of online social media, total score for chat room posting, and online test 2

	Previous Experiences of Online Social Media			
	1. All the time	2. Have done a little	3. Did not know it	4. Heard but never used
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Total Score for Chat Room Posting	<b>26.5 (.9)<sup>††</sup></b>	24.7 (3.9)	23.8 (1.3)	24.3 (2.5)
Online Test 2	18.1 (2.0)	<b>19.7 (.5)<sup>†</sup></b>	18.8 (1.0)	17.4 (.9)

SD= standard deviation;

<sup>††</sup>= pairwise comparisons for group 1 and 3 ( $F_{3,28} = 8.63; p = .040$ ).

<sup>†</sup>= pairwise comparisons for group 2 and 4 ( $F_{3,28} = 11.74; p = .005$ ).

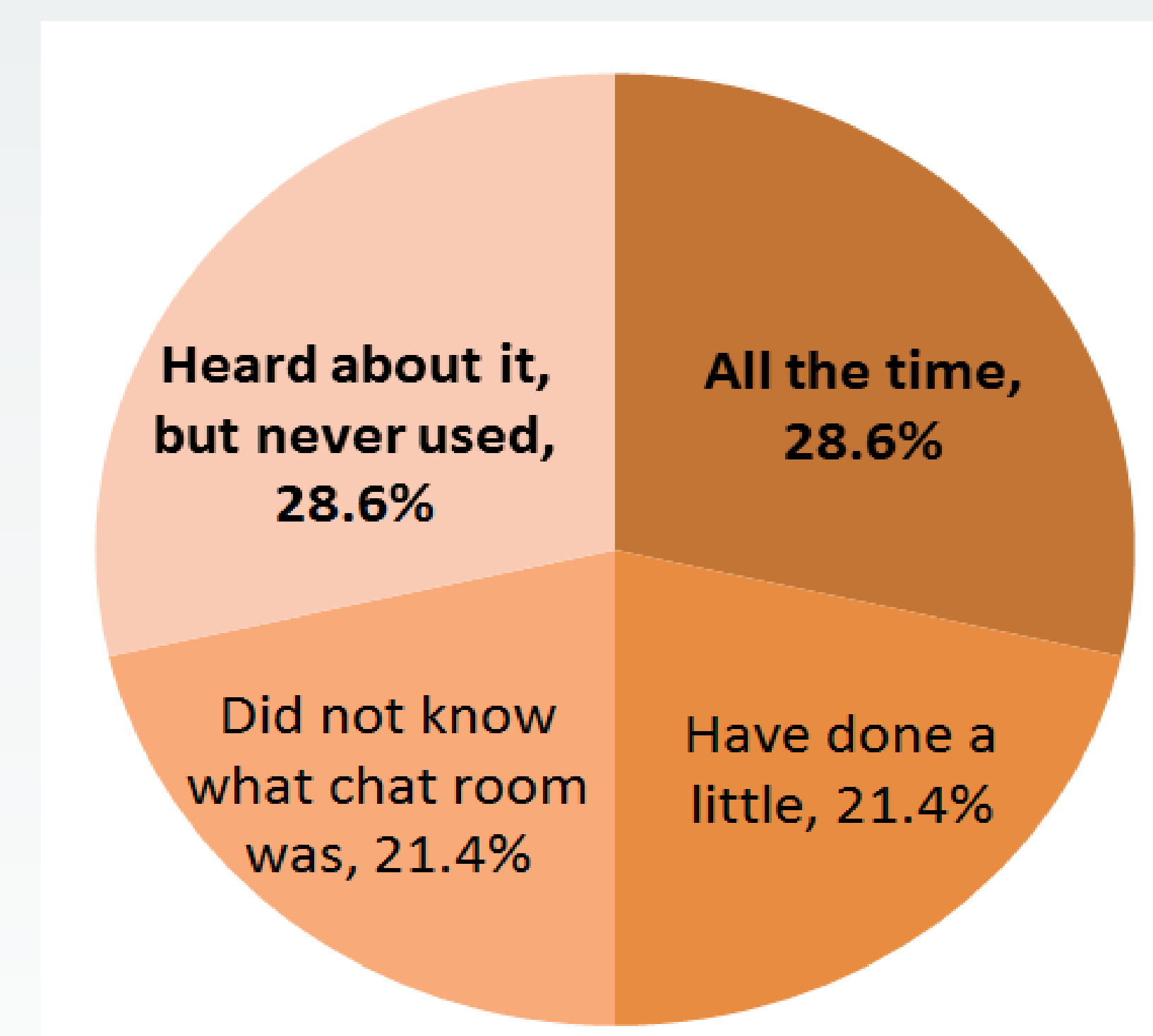


Figure 1: Previous Experiences of Online Social Media

## Conclusion

The results emphasized the associations between the total score for chat room posting, incorrect posting, and results of the online test 2 and 3. The results also indicated the associations between previous experiences of using online social media and the performance of chat room as well as an online test result. Early identification of students' learning barriers by their performance of online chat room and previous experiences of online social media in online teaching may help faculty to recognize the needs of students and to maintain good teaching quality similar to face-to-face campuses.