

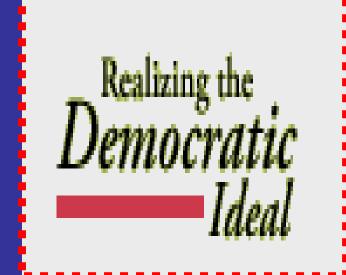
Investigating Relationships among Elements of Interaction, Presence,

and Student Learning in a Graduate Online Course

Lydia Kyei-Blankson, Department of Educational Administration & Foundations



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INTRODUCTION

Purpose of this Study

- Explore the elements students perceive to be most important to their learning in an online course
- The results will help determine the elements that need to be maximized to ensure significant learning experiences in the online course.

Theoretical Framework

Distance education theories:

- 1. Transactional Distance (Moore, 1993;2007; Moore & Kearsley, 1996)
- Online learning is most effective when the perceived pedagogical distance between the instructor and students in the course is minimized with increased interaction
- Three types of interaction:
- -Learner-instructor interaction The two-way communication between the learner and the instructor for content clarification, student feedback and to minimize the impact of distance between the learner and the instructor.
- -Learner-learner Interaction The two-way communication between or among learners via e-mail, phone, group discussions, or chats for collaboration or clarification.
- -Learner-content interaction Interaction the student has with the subject matter by way of the course content, learning activities, assignments, and web links.
- 2. Community of Inquiry (Garrison, Anderson, & Archer, 2000).
- The degree of presence in the online learning environment. Presence is vital to student success in online courses (Yuen, Deng, & Fox, 2009).
- Three types of presence:
- -Social presence -To increase learners' sense of community in the online environment
- -Cognitive presence -To enable learners to construct meaning from the online experience
- -Teaching presence -To increase learner perception of the instructor's ability to provide structure and direction in the online environment

Methods

- A survey research design-Likert scale and open-ended survey items developed based on the literature
- Data analyzed using Excel and Statistical Package for Social Sciences (SPSS)- Descriptive/correlation/Regression Analyses
- Student responses to the open-ended questions were analyzed for themes.

RESULTS

- •96 percent of the students indicated the online learning approach was important to their learning
- •88 percent rated their overall experience in the course as being good to excellent.
- •Student ratings suggest Learner-Instructor Interaction (Table 1) and Teaching Presence (Table 2) are most important to learning.
- •The results show correlation values among the elements of interaction and presence are positive and mostly moderate to strong in magnitude; students who rated their learning experience higher also tended to rate the elements of interaction and presence consistently higher (Table 3)
- •Predictors with the most influence on learning are Teaching Presence, followed by Learner-instructor interaction, and Social Presence (Table 4)

Strategies for Improvement

- •More face time with the instructor for questions and understanding. More details about how to find things on ReggieNet for first time users.
- •Consider one or two actual class sessions to increase teaching presence and Learner-Instructor Interactions

Table 1. Student Ratings and Means for Elements of Interaction

Area of	Percent Ratings			Mean	SD
Interaction	Most Essential	Somewhat Essential	Least Essential		
Learner- Instructor	53%	29%	18%	3.64	.58
Learner- Learner	35%	29%	36%	3.42	.50
Learner-Content	53%	18%	29%	3.53	.54
Overall				3.53	.37

Table 2. Student Ratings and Means for Elements of Presence

Area of	Percent Ratings			Mean	SD
Interaction					
	Most	Somewhat	Least		
	Essential	Essential	Essential		
Social	35%	29%	36%	3.37	.57
Presence					
Cognitive	47%	24%	29%	3.37	.66
Presence					
Teaching	59%	29%	12%	3.55	.56
Presence					
Overall				3.45	.46

Table 3. Intercorrelations of Elements of Interaction and Presence

Elements	Learner-	_		Social	Cognitive	•
	Instructor	Learner	Content	Presence	Presence	Presence
Learner-	-					
Instructor						
Learner-	.74	_				
Learner						
Learner-	.80	.71	_			
Content						
Social	.80	.90	.74	_		
Presence						
Cognitive	.81	.79	.88	.81	_	
Presence						
Teaching	.88	.70	.97	.75	.87	_
Presence						
Learning	.77	.64	.58	.70	.70	.77
Experience						

Table 4. Beta Coefficients for Interaction and Presence Elements

Elements	β
Learner_Instructor_Interaction	2.04**
Learner_Interaction	.19
Learner_Content_Interaction	.22
Social_Presence	.69*
Cognitive_Presence	.49
Teaching_Presence	2.06**

^{*}p<0.05, **p<0.01

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