

The Extent of Both Instructor and Student Discourse in Online Courses

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Abstract: This study was grounded on the assumption that there is a correlation between the extent of both *instructor* and *student discourse* (ISD) in Threaded Discussions (TDs) in online courses. It was also grounded on the assumption that ISD is a factor of importance to both students and the vitality of the online institution. This study empirically examined the extent of ISD in TDs in online courses. The quantitative data analysis indicated that students participate more in TDs when instructors post timely and frequently to the discussion board. The qualitative data analysis indicated that TDs should be *detailed, interesting, enjoyable, and valuable*, and during TDs, instructors should provide students with *continuous encouragement, guidance, assistance, quality and timely feedback, motivation, and support*. Policy makers and online course administrators may achieve greater enrollment and retention rates in online courses with ISD support and a policy on clear expectations in ISD in TDs.

Introduction

Online institutions may facilitate learning through asynchronous forums in online courses. An online course may contain a forum for every lesson or module depending on the policy on forums set forth by online institutions.

Online instructors and students may post and respond to e-text-based messages. Several e-responses and counter-e-responses posted by both instructors and students to course-related questions creating a Threaded Discussion (TD). Online instructors may use TDs in order to create discussions for learning, teaching, and training purposes. E-postings in TDs may be archived from anyplace and at anytime by instructors, students, and other stakeholders of an online institution through a logging in process requiring an ID and password assigned by the online institution. Asynchronous discussion forums such as TDs are considered a communication tool for interactivity purposes.

This study is grounded on the assumption that there is a correlation between the extent of both *instructor* and *student discourse* (ISD) in TDs in online courses. It is also grounded on the assumption that ISD is a factor of importance to both students and the vitality of the online institution. A specific quantitative path analysis was used to conduct this study.

It was hypothesized that there is a direct relationship between the extent of instructor discourse and the extent of student discourse in TDs in online courses.

Purpose

Online institutions hire instructors skillful in assessment and evaluation, teaching methodologies, online communication technologies, and facilitation of learning communities. Additionally, online institutions hire instructors competent in facilitating learning. Given that the roles of online instructors are multiple (e.g., intellectual, social, pedagogical, and technical), a policy on the extent of ISD in TDs is an important factor in the online learning environment.

The purpose of this study was to test the hypothesis that there is a direct relationship between the extent of instructor discourse and the extent of student discourse in TDs in online courses. Additionally, the findings of this study may shed further light on the importance of creating and implementing a policy supporting the extent of ISD in TDs.

The extent of ISD may create a sense of virtual community for answering questions, injecting knowledge, and sharing of expertise, ideas, and opinions. The extent of ISD may also create a meaningful teaching and learning environment reducing the feelings of isolation in the online learning environment. A policy on the extent of ISD in TDs may be a factor of importance to both students and the vitality of the online institution.

The Research Problem

The institution of higher education is becoming an increasingly competitive marketplace. The online university is gaining considerable popularity among those seeking a higher education. Within this competitive marketplace of higher education, the extent of both instructor and student discourse is clearly a factor of great importance to the online institution. The creation and implementation of a policy on the extent of ISD may have an effect on both student success and satisfaction clearly affecting student enrollment and retention.

The success of a higher education enterprise may depend on the effective implementation of a policy on the extent of ISD in TDs in the online learning environment. Online students are usually self-motivated and independent learners skillful with computers. Online students should be given opportunities to interact with instructors and other online learners in order to create a community of learning. Online instructors should utilize TDs. Online institutions should implement a policy on the extent of ISD in TDs.

Review of the Literature

Modern online students may take online courses and continue to meet their personal, family, and professional obligations, and to achieve their academic goals. Modern online students such as Baby Boomers, Gen X, and Echo Boomers may be seeking higher education through online courses where e-communication and connectivity are essential.

Autonomous, self-directed, and goal- and relevancy-oriented students may be looking to find online instruction offering sufficient instructor and student contact. The online learning experience has proven itself to learners who show up at their computers and are determined to complete their online course (Groth, 2007).

Noel-Levitz (2006) found that students' most important concern was to have communication and direction from their professors. Yang and Cornelius (2005) and Paloff and Pratt (2007) have indicated that student success in the online classroom may depend most on the competency of professors, especially those capable of creating a sense of community and emotional connection with students. According to White (2005), adult learners may be disappointed when they are unable to accomplish the academic tasks required in higher education and this frustration could lead to disinterest and eventually withdrawing from courses.

The most valuable assets of any institution of higher learning are the faculty members (Schuster & Finkelstein, 2006). According to Observatory on Borderless Higher Education (2004), "While we may not realize it, we have entered the perfect electric storm, where technology, the art of teaching, and the needs of learners are converging" (p. 2).

Scholars recommend that online instructors create a virtual community in order to foster an online learning environment necessary for learners to thrive as e-students (DuFour, DuFour, & Eaker, 2002; Havice & Chang, 2002; Picciano, 2002). According to Overbaugh (2002), telecommunications learners seem to benefit from a heightened sense of academic community resulting from being able to connect with peers. Motivation may be based on the student's behavior such as how quickly assignments are completed and the number of messages between educator and student (Chyung, 2007).

Facilitating TDs may offer rich and diverse information and knowledge and give students a sense of belonging and connectedness to their online courses. TDs provide opportunities for online students to communicate and refine knowledge. TDs have been conceptualized as an important success factor minimizing feelings of isolation and fostering a sense of connection among students (e.g., Picciano, 2002; Richardson & Swan, 2001). In order to overcome feelings of isolation, it is important to establish a sense of community between instructors and students. Community is what gives students a sense of belonging and connectedness to schools (Havice & Chang, 2002). ISD in TDs is an important element fostering student satisfaction and a sense of online community (Kiriakidis, 2007; Brown & Kiriakidis, 2007; Kiriakidis, Gueorguiev, 2007). Online communities allow for social and collegial interaction between instructors and students.

Instructor and Student Discourse

Roles of online instructors are multiple (i.e., intellectual, social, pedagogical, and technical). The *intellectual* role of online instructors is to encourage deeper analysis of the course content. Online instructors should motivate and encourage students to produce high quality academic work by posting thought-provoking questions in TDs. The *social*

role of online instructors is to foster a sense of community among groups of students through timely and quality ISD by engaging students to participating in TDs in order to develop a cohesive online learning community. The *pedagogical* role of online instructors is to facilitate ISD leading to a more in-depth dialogue in the online classes, and assisting students in mastering the curriculum. The *technical* role of online instructors is to be skillful in online communication technologies (e.g., ANGEL, WebCT, Blackboard, eCollege) in order to facilitate learning. The aforementioned subset of the multiple roles of online instructors requires time commitment and a great deal of written communication.

A policy on the extent of ISD in TDs may be an important factor in the online learning environment. ISD is critical to motivation and engagement of online students in active learning. ISD may support both academic and social needs. It may assist in creating a virtual community. The extent of ISD in TDs may assure student success and satisfaction.

The success of online courses may depend upon the extent of ISD supporting the social and academic needs of online students and improving their critical thinking skills. ISD may provide opportunities for deep learning experiences when the instructor and students create a collegial environment with frequent interactions. ISD may be a factor affecting online courses and ultimately the vitality of the online institution. Policy makers, online instructors, administrators, and students may wish to take into consideration the extent of ISD in TDs to ensure student communication, success, and satisfaction.

Conceptual Framework

This study builds upon and extends the facilitation research of others (e.g., Chou, 2001; Deal, 2002, Worley & Chesebro, 2002; Overbaugh, 2002). This study was interested in examining the extent of ISD in TDs.

This study is grounded on the assumption that the extent of ISD in TDs is important in the vitality of the online learning institution. Building on this assumption, in conjunction with the existing research literature, this study recognizes the importance of a policy on ISD in TDs.

This study empirically examined the extent of ISD in TDs in online courses. A better understanding of this relationship may provide meaningful insights toward instructional practices and policy associated with ISD in TDs in online courses.

Research Methodology

This study's path analysis model is grounded on the theoretical and empirical research literature reviewed. A specific quantitative path analysis model was developed in order to test and analyze the direct hypothesized relationship between the extent of instructor discourse and the extent of students discourse. Qualitative data collected from open-ended questions from a course evaluation survey were used to provide further insight

toward any statistically significant relationships and / or differences found in the quantitative path analysis.

Research Design

The researcher used quantitative path analysis, content analysis, and course evaluation surveys to conduct this study. Quantitative path analysis procedures were used to examine the direct hypothesized relationship between the extent of instructor asynchronous discourse and the extent of student asynchronous discourse. Content analysis procedures were used on the computer-mediated transcripts of TDs between instructors and students within several graduate courses in education offered entirely online by an accredited institution of higher education.

Content Analysis

The primary data source for this study was the computer-mediated transcripts generated by online students and their course instructors as they participated in the asynchronous discourse component of their respective online course. With the inherent capacity to archive asynchronous discourse, computer-mediated transcripts provided an ideal means to identify and analyze the extent of asynchronous discourse exchanged among the participants in each of the online courses involved in this study. Content analysis procedures were used to analyze TDs posted by students and instructors in order to quantify ISD (i.e., the extent of both instructor and student discourse).

Course Evaluation Surveys

The participating online educational institution selected for this study requires students to respond to course evaluation survey questions designed to assess student perceptions of the administrative, technological, and instructional components of the online educational institution. Course evaluation survey questions include rating both the online course and the online instructor, should students recommend the online course to another person, and a question on students' opinion about TDs. The researcher was interested in this last survey question: "Please tell us about your experience in the threaded discussions." This open-ended course survey question was used to provide further insight toward the nature of the quantitatively measured hypothesized relationship.

Participants and Setting

The setting consisted of an online institution of higher education offering graduate level degree programs in education entirely online. The participating institution is: (a) accredited by the appropriate accrediting body; (b) there are no residency requirements; (c) all communications and interactions between students and instructors take place online using email and threaded discussions using the institutions' computer server; (d) instructors are required to participate in asynchronous discussion forums; and (e) students are required to participate in asynchronous discussion forums. Asynchronous discussions

are text-based, mandatory, and contribute between 5% and 25% of each student's final grade. A student meets the course requirements on TDs by posting between one and three responses to each question posted by the instructor in each lesson or module of online courses.

Data Collection

The researcher collected the aforementioned data from the online databases of the participating online institution of higher education. Specifically, the online databases contained copies of the threaded discussions. The researcher selected randomly 75% of the threaded discussions. The collected data were saved into a text file which was edited to ensure student and instructor anonymity. The edited data were saved into one database file in order to perform content analysis.

Data Analysis

In this study's quantitative path analysis model, both student and instructor discourse were continuous variables. Descriptive statistics were performed in order to compute the student n size and the extent of student discourse (number of student postings), and the instructor n size and the extent of instructor discourse (number of instructor postings). Descriptive statistics were also performed to compute the mean and standard deviation of the number of student postings and the number of instructor postings.

A path coefficient may report the relative strengths or weaknesses of the extent of instructor discourse on the extent of student discourse. Path coefficients for the relationship between student postings and instructor postings with $\alpha = .05$ and $p < .05$ for statistical significance were calculated. The extent of instructor discourse was the predictor variable and the extent of student discourse was the criterion variable.

Research Results

Quantitative Data

Based on the content analysis, there were 14 instructors and 249 students. The content analysis revealed 169 instructor e-postings and 1,014 student e-postings. With these numbers, this study's sample size was $n = 263$ participants and the total number of e-postings posted by both instructors and students was 1,183.

Table 1 presents the descriptive data for instructor and student discourse. It includes the mean level and corresponding SD. The number of student e-postings represents the extent of asynchronous student discourse. The number of instructor e-postings represents the extent of asynchronous instructor discourse.

Table 1
Descriptive Data for Instructor and Student Discourse

	n Size	Number of Postings	M(SD)
Students	249	1,014	72.43 (32.517)
Instructors	14	169	12.07 (9.042)
Total	263	1,183	16.04788 (5.00)

The relationship between the number of instructor e-postings and the number of student e-postings was found to be of statistical significance. The Pearson Correlation value for the relationship between the extent of student discourse and the extent of instructor discourse was found to be $r = .763(**)$ where $* = p < .05$; $** = p < .01$ level (2-tailed). The correlation coefficient was positive and statistically significant. Correlation coefficients of determination indicated that this relationship was of practical significance (the variance in the extent of student postings was associated with the extent of instructor postings). The R square change was .582 with $F = 16.695$ significant at $p = .002$. Thus, the data analysis indicated that this direct relationship was both of statistical and practical significance.

The relationship between the extent of instructor discourse and the extent of student discourse in online courses was found to be of statistical significance ($r = .763, p < .01$). The direct effect of the extent of instructor discourse on the extent of student discourse measured the same relationship as the correlation between these two variables (instructor discourse and student discourse). The path coefficient for this path segment was identical to the correlation coefficient for these two variables ($\beta = .763, p < .01$).

Qualitative Data

In order to provide further insights toward the implications of the quantitative findings and strengthen possible interpretations, the researcher collected the responses to the last course survey question: "Please tell us about your experience in the threaded discussions." This open-ended course survey question provided further insight toward the nature of the quantitatively measured hypothesized relationship between the extent of instructor discourse and the extent of student discourse. Survey responses to this question were transcribed and saved into a database for analysis. Approximately 249 statements were collected and main themes were derived from this analysis. Specifically, the themes from the quantitative data analysis are summarized in the following keywords with regard to the hypothesized relationship:

TDs are: *detailed, interesting, enjoyable, and valuable*

During TDs, Instructors provided: *continuous encouragement, guidance, assistance, quality and timely feedback, motivation, and support*

Ninety-five percent (237 statements) of students whom responded to the last survey question indicated that the instructors were very helpful during the TDs and the postings were *detailed, interesting, enjoyable, and valuable*. Students thanked their instructors for all of the help they offered during the length of the online course. Students wrote: (a) "Thank you for always responding to my TDs quickly and for your helpful comments with each posted question"; (b) "Thank you for your detail postings to the TDs"; (c) "I find this aspect of using TDs very interesting"; (d) "Thank you so much for your help. TDs were very enjoyable"; (e) "Thank you for the quality TDs that made this course a delight"; (f) "Thank you! I thoroughly enjoyed learning through the TDs"; (g) "Thank you for the very interesting TDs"; (h) "I feel very motivated by your comments in the TDs"; (i) "I was very impressed with the TDs, especially with your valuable comments, quick responses, and obvious willingness to help students"; and (j) "I REALLY enjoyed the TDs in this class."

Ninety-seven percent (242 statements) of students whom responded to the last survey question indicated that the instructors provided *continuous encouragement, guidance, assistance, quality and timely feedback, motivation, and support* during the TDs. Students wrote: (a) "Your continuous encouragement helped me"; (b) "I appreciate your guidance through the TDs in this course"; (c) "I appreciate your timely feedback to the TDs"; (d) "I had fun with the TDs. With all of your assistance, I have succeeded and completed this journey"; (e) Your TDs have been fantastic and will be useful in my career; (f) "TDs enriched the course and really helped me built a better view about curriculum"; (g) I really enjoyed the TDs and appreciate your help and guidance throughout this entire time"; (h) "Your availability over the web was comforting and helpful"; (i) "Your quick responses to TDs helped me and I enjoyed taking this challenging course"; (j) "Thank you for the encouragement on the TDs. It was very much appreciated and energizing"; (k) Your comments were very encouraging throughout this course. I find your comments motivating"; (l) "I very much appreciate all the motivation, suggestions, and support you offered during this course. Although this was a totally new field for me, I found this course very interesting"; (m) "You have provided us with great feedback during the threaded discussions"; (n) "The TDs of this course have been such a pleasurable experience. I have gained a wealth of knowledge"; (o) "Thank you for all of your support in answering TD questions"; (p) "Your timely responses and assistance are appreciated"; (q) "Your kind words and encouragement helped me with this challenging course and the TDs were fun!"; (r) "I have been out of school for over 10 years so I was a bit concerned in the beginning of the course; However, your encouragement and support are appreciated"; (s) "Your comments were encouraging. Thanks for your help and support."

Interpretations and Implications for Policy and Practice

The findings of this study suggest that there is a direct relationship between the extent of instructor discourse and the extent of student discourse in online courses. These findings suggest that students participate more in TDs when instructors posted timely and frequently to the discussion board. These findings also suggest that the role and commitment of online instructors in prompting student discourse for learning stimulation

and motivation (i.e., guide, motivate, monitor, and encourage students to fully participate in online discussions) is important in online classes.

Policy makers, administrators, and faculty may wish to use the findings of this study to develop a policy on ISD in TDs in order to improve course design, curriculum, and delivery methods by utilizing pragmatic discourse strategies and operational activities. Policy makers and administrators need to support and encourage ISD in TDs.

Online course administrators may achieve greater enrollment and retention rates in online courses by encouraging and supporting ISD in TDs. Online administrators may define the extent of ISD in TDs in a policy on ISD and include such as policy in the faculty handbook. ISD allows online students to experience academic success in a technologically-based setting.

Online course administrators should work with online course developers, instructors, and technical support experts in order for online instructors to utilize communications technology tools that support frequent ISD. A policy on the extent of ISD may assist instructors and students in creating a more meaningful learning and teaching environment. With ISD support and a policy on clear expectations in ISD in TDs, students may be assisted in becoming more engaged in TDs and more satisfied with learning in the online learning environment.

Questions still remain unanswered concerning whether or not the findings of this study would vary as a function of a policy on the extent of ISD in TDs of the online higher education institution with regard to: (a) academic level of online courses; (b) the multiple roles of the instructor teaching undergraduate and/or graduate online courses; and (c) the academic fields (e.g., business, education, information technology). Scholars may wish to examine the effect of the extent of instructor discourse on the extent of student discourse should student discourse be synchronous and multimedia-based.

Limitations of the Study

In conjunction with this research study's assumptions, there are some limitations to this study that may limit its generalizability to other research settings. The findings of this study may not be generalizable to the entire spectrum of online learners. The results may be indicative of only the responding sample and boundaries of this population of online learners. The constructs of this study were analyzed at a given point in time while dynamic technological changes can occur in the online learning environment. This research study did not develop an instrument for evaluating a policy on ISD in TDs or for measuring student satisfaction or success with the asynchronous online learning systems.

Conclusion

The findings of this study suggest that there is a direct strong positive relationship between instructor and student discourse in online courses. This relationship was of practical and statistical significance. The greater the extent of instructor discourse the

greater the extent of student discourse in online courses. These findings contribute to a better understanding of policy on the extent of ISD leading to student retention, success, and satisfaction.

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