# Overt and Covert Instructor Interaction and Student Participation in Asynchronous Online Debates

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**Abstract:** The idea that online debates are beneficial to promote learning is not new. Yet, students do not actively participate or participate as well as anticipated. Two factors that may affect participation are instructor guidance and interaction. For this case study, two instructors taught sections of the same course, but with different approaches. Both instructors provided similar guidance as how students should participate in the debates. They also interacted with students through various communication tools; however, one participated in the discussions (Overt Approach) and the other did not (Covert Approach). A content analysis of embedded statements in three debates was conducted. The highest statement frequencies were in the first debate in Unit 3 for both Approaches. The Overt Approach had higher frequencies than the Covert Approach in the second debate in Unit 9; this observation was reversed in final debate in Unit 13. Substantive statements, prevalent across debates for both Approaches, appeared to promote student participation. However, the Covert Approach had significantly more Substantive statements of *Elaborate* in the Unit 3 Debate and *Critique and Evidence* in Unit Debate 13 than found in the Overt Approach. The Overt Approach yielded higher Non-Substantive statements of *Side-track* than found in the Covert Approach overall.

**Keywords:** Online debates, distance learning, student engagement, overt instructor interaction, covert instructor interaction.

## Introduction

The use of online discussion as an instructional method is commonplace in university and college. The literature on online instruction is replete with the idea that asynchronous discussions and debates are beneficial to students and can promote learning and student satisfaction (An, Shin, & Lim, 2009; Davidson-Shivers & Rasmussen, 2006; Jung, Choi, Lim, & Leem, 2002; Ko & Rossen, 2010; Romiszowski & Mason, 2004; Vonderwell, Liang, & Alderman, 2007). Cheung, Hew, and Ling Ng (2008) argued that instructors want students to contribute and participate actively in online discussions. In a later case study, Cheung and Hew (2010) indicated that students post their opinions when the instructor displayed an open-minded attitude; however, they suggested that their observations were contextually-dependent. Yet, there is still a concern that students may not actively participate or participate as well as anticipated, or at the very least, there is a lack of understanding of how to promote effective participation (Dennen, 2008; Maurino, 2007).

One factor that may affect online student participation is instructor guidance and interaction with their students according to Davidson-Shivers, Guest, and Gray's (2010) review of pertinent literature. Liu, Bonk, Magjuka, Lee, and Su (2005) qualitative study examined instructor roles by interviewing faculty and confirmed that they saw their roles in terms of pedagogy, management, social facilitation, and technology. Mazzolini and Maddison (2007) found that students were influenced by the instructor's commitment, responsiveness, and expertise.

However, there is some disagreement as to how much and when an instructor's presence or

guidance is needed. Early on, Berge (1995) contended that it is the instructor who sets and maintains the decorum of online discussions by facilitating and involving all learners in them. Liu et al. (2005) also found that, when interviewing students, the majority saw the instructor as a facilitator. Additionally, Swan (2003) argued that aspects of instructor interaction are crucial and that an online instructor's role can help guide and direct learner motivation and learning. She also contended that online settings encourage instructors to adopt a leadership-facilitative role, whose primary goal is to ensure feedback, abate anxieties, and correct misconceptions. Maurino (2007) concurred by stating that "the need for more instructor involvement and effort is indicated in much of the research" (p. 247) as did Palloff and Pratt (2003).

Yet others suggest that too much instructor interaction might stifle student participation (Bonk, 2004; Dennen, 2008; Liu et al., 2005; Mazzolini & Maddison, 2007). For instance, Liu et al. found that although students viewed instructors as facilitators, they were unsure about the effectiveness of the instructor. Ellis and Davidson-Shivers (2010) also found that that amount of instructor guidance, in terms of structured directions, affected student participation. In other words, when too much was provided, student participation diminished. Additionally, Mazzolini and Maddison found that the more frequently instructors participated, the less often students posted, which might indicate that students do not want instructors to play a visible, recurrent role in discussions. Mazzolini and Maddison also suggested that instructor involvement could be indirect, by providing feedback later rather than immediately, and that the timing of such postings—at the end of a discussion rather than within—had little effect on student participation and appreciation. This latter finding might suggest that it is also appropriate or possibly better for instructors to respond at the end, to 'wrap' things up by clarifying misconceptions and making final comments than participating during a discussion.

To further the understanding of such instructor interactions in online discussions, this case study focused on student discourse in three debates in two sections of the same graduate course. Specifically, we examined whether there were notable differences among student postings in the two course sections when instructor guidance was provided through direct or indirect involvement within these asynchronous discussions.

**Purpose of the Study**

This case study was conducted in order to determine whether two different approaches to instructor guidance and interaction would have any effect on what, and how much, students posted in online discussions and debates. Key to this case study is that two instructors used two different approaches to guide student participation in online discussions throughout the semester. We labeled the approaches Covert and Overt after the course had ended and during analyses.

The Covert Approach was a "behind the scenes", or indirect, form of interaction for student discussions. Although she provided guidance on how students should participate in the directions for any given discussion or debate, the instructor informed students that the discussions and debates were their own forum and that she would not directly participate (or interact) during them. The students also knew that the instructor would observe and provide feedback at the end of the discussions or debates to each individual student through the gradebook and to the whole group in the form of unit summaries that clarified misconceptions and included additional information about the given topic or issue. In the Overt Approach, or direct form of guidance and interaction, the other instructor actively participated by commenting to individuals and to the group during discussions or debates. This instructor also provided scores and comments on discussion and debate participation on an individual basis in the LMS gradebook.

Although there were several discussions throughout the term, we chose to analyze student participation in three debates with controversial issues as topics, which allowed for alternative viewpoints to be shared and supported. We performed analyses on the substantive nature of messages by examining embedded statements, or subtext within each posting. That is, how many and what types of statements occurred in the online debates for each type of instructor approach used. As a follow-on analysis, t-tests were performed on the averages of the embedded codes for both course sections.

**Methodology**

**Participants and context**

A total of 32 graduate students were enrolled in two sections of the same required online course on learning psychology during a fall semester at a U.S. southeast regional university. The majority of participants were female students (i.e., Covert Approach = 16 women, 1 man; Overt Approach = 15 women plus instructor). Most were in the College of Education earning a master's degree in various teacher education, educational media, or instructional design programs. Although this was an online course, the vast majority of students lived within the regional area and could have driven to campus. Of those in teacher education programs, most students earned their undergraduate

degrees from the same university and taught in public and private schools within the region.

The first and second authors were participant-researchers in this assignment. Both were the instructors for one of the two course sections.

**The course**

The course was on a psychology of learning and the goals, content and sequence of topics were the same for both sections. Additionally, both sections had the same major course requirements that included: a) participation, b) three scholarly reference annotations, c) three personal reflection papers, and d) two exams. The assigned percentages for course requirements were also the same for each section; 25 percent of the final grade was based on participation, of which asynchronous discussions and debates were a major part.

For each course unit, lecture notes, reading assignments, and asynchronous discussions were provided. Short unit assignments such as finding websites, locating additional readings, or sharing examples were sometimes included. Beginning with the third week of classes, there were two discussions in which students needed to participate; again, this was the same for both sections. The main difference between the two sections was how instructors facilitated and interacted with students in the asynchronous discussions. These distinctions are described as follows.

***Covert approach course section.*** The course instructor for the Covert Approach (also lead author) had taught the course in the online delivery mode since 2001. With the Covert Approach, she observed, but did not directly participate in the discussions. Instead, this approach allowed students to use discussions as their own forum; hence, instructor interactions were not readily observed. However, instructor feedback was provided through unit summaries on unit content and activities. These summaries, sent to the entire class, included the instructor's point of view on the issue and general clarifying remarks about misconceptions that might have occurred during the discussion. The instructor would comment to the whole group on their activity via email during the week. On an individual basis, students received feedback about their participation through instructor emails at the end of the unit as well as scores with comments to each through the online gradebook.

***Overt approach course section.*** The second author was the instructor of the Overt Approach section. Although she had taught the undergraduate educational psychology course in a Web-enhanced version since 2001, this was her first time teaching the graduate level learning psychology course. The Overt Approach allowed this instructor to provide guidance on ways to think about the topic, pose questions to the group, and provide immediate feedback on and clarification about students' postings while participating during the weekly discussion. Similar to the other instructor, these students received more detailed feedback about their individual participation and assignment completion at the end of the unit. The feedback and scores with comments on unit assignments and other course requirements were also provided through the online gradebook and emails to individuals.

**Online asynchronous discussion procedures**

Both instructors included overall directions for each threaded discussion or debate along with the general description of the topic or issue at hand. Although there were multiple asynchronous discussions and debates that occurred throughout the 15-week semester, we chose to analyze the archived data from Units 3, 9 and 13 debates. This decision was based on the idea that these debates had controversial topics and, therefore, generated more and varied responses to issues at hand than did the other types of discussions or debates. Additionally, they occurred across the semester with one at the beginning, another at mid-term, and the last near the end of the term.

***Unit 3 Debate.*** The first debate was in Unit 3. Students were asked to choose and defend their position as to 'whether the main source of intelligence was nurture or nature' in order for them to become informed as to what both sides contended and why this argument in the literature still stands. Students were to argue which was the primary source, provide support for their positions, and critique other students' responses. Because this was the first discussion of the semester, additional information about the topic along with general information as how to proceed in a discussion was provided. Information on argumentation style elements was also included in the directions as further guidance as to how to participate.

Specific directions for the Covert Approach required students to post at least four messages, with one being response to the question and the others were replies to one another, in order to receive credit. The specific directions for the Overt Approach required students to post at least three messages, with each message being on a different date and at least 24 hours between each message posted. One of the messages had to be in response to the posted topic and the remaining replies were to be on other students' postings.

***Unit 9 Debate.*** In the second debate, or Unit 9 Debate, students argued whether they agreed with the statement, "Knowledge cannot be instructed or transmitted by a teacher – it can only be constructed by the learner." The students had covered cognitive and

constructivist views primarily in Units 7 through 9 and the purpose of this debate was to assist students in contemplating the issues related to cognitive and constructivist viewpoints on how learning occurs. Again, they were directed to provide evidence, document and support their positions, defend their arguments, and evaluate and critique the positions and justifications of others, as was asked of them in the first debate. Students were reminded that information on argumentation could be found in Unit 3. Specific directions for both sections remained the same with the exception that in the Covert Approach, the requirement of four responses was dropped and replaced with a general requirement of "respond to the questions and reply to others."

***Unit 13 Debate.*** For the third debate, Unit 13 Debate, students argued whether "teaching methods and strategies should be different for adults than for children." Unit 13 was a transitional unit that attempted to focus on application of concepts and principles of learning psychology to instructional application. Also included in this unit were readings about Robert Gagne's theories of instruction design and strategies. The purpose of this last debate was to assist students to think about what they had learned about psychology and human development and move toward instructional applications. Again, they were directed to state their position and provide evidence and support for their argument, just as in the previous debates. The requirements for posting were the same as in the second debate for Covert Approach; Overt Approach maintained its same requirements as directed in the previous two debates.

**Data coding and analyses**

After the course ended and final grades were submitted, the archived data were retrieved from the secure, password-protected learning management system (LMS). The three researchers met to determine which asynchronous discussions to analyze and the transcripts of the chosen three debates were printed.

At this initial meeting, the coding system (see Table 1) was explained. Instead of conducting a content analysis for posted messages and arriving at a single code per message, we analyzed the embedded statements within each message. This was done to more accurately reflect what participants were sharing within their discussions and whether the discussions were on or off topic (i.e., substantive or non-substantive) for the most part. Therefore, each statement within each message per debate per section was analyzed using a coding system adapted from a previous versions developed by the first author (Davidson-Shivers, Ellis, & Amarasing 2005; Morris, & Sriwongkol, 2003), as shown in Table 1. During our analyses, we modified this coding system as follows: a) the codes, *Solicit* and *Structure*, became a part of the embedded statement codes to better reflect statements made by any given participant; b) *Off-Topic* changed to *Side-Track* to provide a more accurate record of what was observed; and c) *Partial Argument* was added to reflect a more precise distinction in statements that advocated personal viewpoints on an issue. Table 1 reflects these changes.

At the initial meeting, the three researchers decided to analyze the contents of the Unit 3 Debate for both sections first. Each researcher individually assigned a single type of code to each embedded statement within posts; no overall codes for posted messages were assigned. When completed, the three researchers met about every two weeks to discuss their codes and arrive at a consensus for the embedded statements until the content analysis of Unit 3 Debate was completed and agreement reached. During these consensus meetings, modifications to the coding system were also made. Analyses of the remaining two debates (Unit 9 and 13) were completed in a similar fashion.

## Results

As a way of identifying the vast amount of postings per debate, the number of messages posted by participants for each of the three debates for both sections is shown in Table 2. Grand Totals of messages are also shown.

The number of embedded statements by participants in each of the three debates for both sections is shown in Table 3. Grand Totals are also shown.

The researchers, in addition to calculating the frequencies, calculated the averages of statements per participant (ASPP) of type of statement per debate. The rank order of emphasis as to which type of statement occurred most often within debates was also determined.

In the following sections, frequency data will be reported first, followed by summaries of the results of follow-on statistical analyses.

**Types and averages of embedded statements in the Unit 3 Debate**

For this first debate of the semester, the total frequency of embedded statements were large ($N= 532$ for Covert Approach and $N = 469$ for Overt Approach) as compared to the frequencies in the remaining two debates (see Table 4.). For both sections, the embedded statement of *Evidence* ($n = 208$ for Covert Approach and $n = 193$ for Overt Approach) was most frequently observed. No *Partial Argument* statements were found in the Unit 3 Debate for either section. There was a higher count of *Elaborate* and *Support* in the Covert

**Table 1.** *Types of Codes for Embedded Statements in Posted Messages*

| Code | Description | Examples |
|---|---|---|
| **Substantive Codes: Statements that are directly related to the topic or issue within a posted message.** | | |
| **Structure** | Message initiates discussion, frames an idea, or focuses attention on the debate topic. | "There are both pros and cons of the nature vs. nurture argument."<br>"How is intelligence defined?" |
| **Solicit** | Content-related question or request for additional information or focus on a sub-topic/issue. | "Would he still be considered intelligent if he hadn't been "found" and his behavior shaped?"<br>"I am sure that nature provided the basis of his intelligence, but what behaviors did he display that led his teacher to think he needed LD services?" |
| **Argument** | Statement supplying personal viewpoint; taking a stance on the posted issue; advocating one side of debate. | "Knowledge is constructed by learners and their thought processes",<br>"Genetics are important but environment shapes our future." |
| **Partial Argument** | Statement supplying or advocating a personal viewpoint for part of the issue, but not all of it. Other parts of issue were ignored | "I believe that adults and children learn differently."<br>"Motivation of students is an important consideration . . ." |
| **Evidence** | Statement provides an example, facts that substantiates and supports own personal argument or position. | "… Gardner says that the key to understanding . . . is for students to directly examine their own theories and confront the shortcomings."<br>" . . . Watson also established that humans could be taught certain feelings and fears through their environment, with which they were not born." |
| **Elaborate** | Statement expounds or enlarges on ideas provided by another. | "I also believe that the teacher serves as a designer and monitor of knowledge that will be transmitted to the student . . . "<br>". . . if any one part of the 4 parts (teacher, environment, experiences, self) is missing or incomplete the whole learning experience can fall apart." |
| **Critique** | Statement identifying limitations or flaws in another's response. | "I think the point that you are missing is that, in your example . . . no one really thinks that the child with the 70 IQ will become equal to the child with the 130 IQ . . . "<br>"The cases you presented, however, . . . I do think that you are not giving environment (nurture) the proper amount of credit." |
| **Evaluate** | Statement on significance or value of another's response. | "You present your argument very well, and certainly genetic material is required for people, especially . . ."<br>"After reading your article . . . I would say that it supports the nurture theory." |
| **Non-substantive Codes: Statements that are not directly related to the topic or issue within a posted message.** | | |
| Chat | Statement is conversational or has little relevance to topic or issue. | "Congratulations to you for getting your degree!"<br>"I lived in England for three years . . . and was amazed at the amount of maternity/paternity leave they received." |
| Side-Track | Statement indirectly connected to main issue/topic or a side bar. Considered intentional when made by an instructor to round out a discussion or add another learning opportunity. | ". . . I believe that school performance is a very poor indicator of intelligence level."<br>"I've had students like that and . . . wonder what I could do to get this child motivated."<br>"How is intelligence defined?" |
| Support | Statement reiterating or acknowledging another's ideas, but does not add any new ideas. | "You did a good job defending your position with the cases that you noted."<br>"I liked your motivation statement." |
| Un-codeable | Response is not decipherable or not enough detail to supply adequate meaning to discussion. | "I agree back to learning the times table by rote (drill and grill)."<br>Note: Duplicate postings by students were excluded from the content analyses. |

**Table 2.** *Posted Message Frequencies and Grand Totals per Debate for Both Sections*

| SECTION | Unit 3 Debate Messages | Unit 9 Debate Messages | Unit 13 Debate Messages | Grand Totals |
|---|---|---|---|---|
| **Covert Approach** ($n$ = 17) | 91 | 50 | 64 | **205** |
| **Overt Approach** ($n$ = 15 + instructor) | 61 | 52 | 50 | **163** |
| **Totals** | **152** | **102** | **114** | **368** |

Approach than in the Overt Approach. Conversely, more *Structure* and *Side-track* statements were found in the Overt Approach than in the Covert Approach. Very few *Un-codeable* statements were noted, with only 6 in the Overt Approach and none in the Covert Approach. By and large, the students within each section contributed to the debate in a substantive manner.

Table 5 shows the rank ordering of statements based on the average of statements per participant (ASPP) for the Unit 3 Debate for both sections. The ASPP is a simple calculation of dividing the number of statements by the number of students and, due to rounding, they are approximations. The rank ordering is first to last for the Covert Approach and then compared to those observed in the Overt Approach. *Evidence* statements ranked first and *Argument* statements ranked third for both sections. The averages for *Elaborate* and *Chat* were in the top four rankings for both sections, but in different orderings. For instance, in the Covert Approach, *Elaborate* ranked second and *Chat* ranked fourth; *Side-track* was sixth in the Covert Approach. *Side-track* was second and often made by the instructor, and *Elaborate* and *Chat* were in fourth place in the Overt Approach. The instructor of the Overt Approach responded six times in this discussion; some of which were designated as *Side track* (refer to Table 1 as to what is meant by this code).

The ASPP dropped dramatically in both sections to being based from slightly more than one statement per person to none. *Critique* and *Evaluate* were toward the bottom rankings with *Critique* as seventh for the Covert Approach and eighth for the Overt Approach and *Evaluate as* eighth and tenth, respectively. *Solicit* and *Structure* statements were minimal for each section. It is noted that more than half of these types of statements were made by the instructor using the Overt Approach.

**Types and averages of embedded statements in the Unit 9 Debate**

The second debate, Debate 9, occurred around the middle of the semester. The total number of embedded statements for both sections dropped compared to totals in the first debate; this drop (about half) in the Covert Approach was considerable (see Table 6). By contrast, we found more statements in the Overt Approach ($n$ = *351*) than found in the Covert Approach ($n$ = *263*). For both sections, the highest count was observed for the embedded statement of *Evidence* ($n$ = *111* for both sections*)* and frequencies for *Elaborate* and *Evaluate* in both sections were less, but similar in frequency ($n$ = 57 and 55, respectively); the counts for *Support (*$n$ = 20) were the same. No *Partial Argument* statements were found for this debate in either section. Again, we observed that the Overt Approach had considerably more *Sidetrack* statements than in the Covert Approach and, to some degree, more *Chat*-ting occurred in the Overt Approach as well. No *Un-codeable* statements were found in the Covert Approach, although a few were found in Overt Approach ($n$ = 9), which was a slightly higher count

**Table 3.** *Embedded Statement Frequencies and Grand Totals per Debate for Both Sections*

| SECTION | Unit 3 Debate Embedded State-ments | Unit 9 Debate Embedded State-ments | Unit 13 Debate Embedded State-ments | Grand Totals |
|---|---|---|---|---|
| **Covert Approach** ($n$ = 17) | 532 | 263 | 486 | **1281** |
| **Overt Approach** ($n$ = 15 + instructor) | 469 | 351 | 320 | **1140** |
| **Totals** | **1001** | **614** | **806** | **2421** |

**Table 4.** *Frequencies of Embedded Statements for Unit 3 Debates*

| UNIT 3 DEBATE Codes Observed* | Covert n= 17 | Mean | Std. dev. | Overt *n*= 15 (+ in-structor)** | Mean | Std. dev. | t-value | Sig. | Differences between both sections |
|---|---|---|---|---|---|---|---|---|---|
| Substantive | 405 | 4.76 | 6.248 | 305 | 3.94 | 6.261 | -.849 | .397 | +100 |
| **Structure** | **7** | **.41** | **.870** | **22** | **1.38** | **1.455** | **2.325** | **.027** | -15 |
| **Support** | **45** | **2.65** | **1.801** | **24** | **1.50** | **1.095** | **-2.193** | **.036** | +21 |
| Argument | 70 | 4.12 | 2.315 | 49 | 3.06 | 1.526 | -1.554 | .131 | +21 |
| Partial Argument | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critique | 10 | .59 | .618 | 17 | 1.06 | 1.769 | 1.016 | .323 | -7 |
| **Elaborate** | **109** | **6.41** | **4.515** | **44** | **2.75** | **3.856** | **-2.498** | **.018** | +65 |
| Evaluate | 8 | .47 | .717 | 2 | .75 | 2.745 | .406 | .688 | +6 |
| Evidence | 208 | 12.24 | 8.807 | 193 | 12.06 | 9.284 | -.055 | .957 | +15 |
| Non-Substantive | 127 | 1.60 | 3.462 | 164 | 1.63 | 2.601 | .062 | .951 | -37 |
| Chat | 55 | 3.24 | 2.948 | 44 | 2.75 | 2.646 | -.497 | .623 | +11 |
| **Side-track** | **15** | **.88** | **1.691** | **59** | **3.69** | **2.938** | **3.335** | **.003** | -44 |
| Solicit | 5 | .29 | .588 | 9 | .56 | 1.999 | .530 | .600 | -4 |
| Un-codeable | 0 | .00 | .00 | 6 | .38 | .885 | 1.695 | .111 | -6 |
| Totals per course | 532 | 2.88 | 4.863 | 469 | 2.68 | 4.591 | .402 | .688 | +63 |
| ASPP | 31. 29 | | | 29.31 | | | | | +1.98 |

**Table 5.** *Rank Order of Emphasis of Averaged Embedded Statements in Unit 3 Debates*

| UNIT 3 DEBATE | | Order of Average | | Order of Average |
|---|---|---|---|---|
| **Evidence** | 12.24 | **1** | 12.01 | **1** |
| **Elaborate** | 6.41 | **2** | 2.75 | **4 (tie)** |
| **Argument** | 4.12 | **3** | 3.06 | **3** |
| Chat | 3.24 | **4** | 2.75 | 4 (tie) |
| Support | 2.65 | 5 | 1.5 | 6 |
| Side-track | 0.88 | 6 | 3.69 | **2** |
| **Critique** | 0.59 | 7 | 1.06 | 8 |
| **Evaluate** | 0.47 | 8 | 0.13 | 10 |
| **Solicit** | 0.10 | 9 (tie) | 0.56 | 9 |
| **Structure** | 0.10 | 9 (tie) | 1.38 | 7 |
| Un-codeable | 0 | 11 (tie) | 0.38 | 11 |
| **Partial Argument**** | 0 | 11 (tie) | 0 | 12 |
| **ASPP total** | **31.59** | | **29.88** | |

* Codes in **Boldface** indicate substantive type of statements
**No *Partial Argument* statements were found in Unit 3 Debate for either course section.
Note: Simple calculations of averages are approximations and may cause variation in the ASPP totals.

**Table 6.** *Frequencies of Embedded Statements in Both Sections for Unit 9 Debates*

| UNIT 9 DEBATE Codes Observed* | Covert *n*= 17 | Mean | Std. dev. | Overt *n*= 15 (+ in-structor)** | Mean | Std. dev. | *t*-value | Sig. | Differences between both sections |
|---|---|---|---|---|---|---|---|---|---|
| **Substantive** | 205 | 2.41 | 3.389 | 207 | 2.59 | 3.967 | .307 | .760 | -2 |
| Solicit | 3 | .18 | .393 | 5 | .31 | .602 | .773 | .445 | -5 |
| Structure | 6 | .35 | 1.222 | 14 | .88 | 1.784 | .986 | .332 | -8 |
| **Argument** | 24 | 1.41 | 1.121 | 29 | 1.81 | 1.276 | .960 | .345 | -5 |
| **Partial Argument** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critique** | 2 | .12 | .332 | 4 | .25 | .577 | .813 | .442 | -4 |
| **Elaborate** | 57 | 3.35 | 2.396 | 55 | 3.44 | 4.147 | .072 | .943 | +2 |
| **Evaluate** | 11 | .65 | .862 | 8 | .50 | .730 | -.527 | .602 | +3 |
| **Evidence** | 111 | 6.53 | 4.849 | 111 | 6.94 | 5.579 | .225 | .824 | No difference |
| Non-Substantive | **58** | **.57** | **1.206** | **144** | **1.50** | **2.722** | **3.080** | **.003** | -86 |
| Chat | 6 | .35 | .786 | 29 | 1.81 | 3.016 | 1.877 | .078 | -23 |
| **Side-track** | **23** | **1.35** | **1.869** | **67** | **4.19** | **4.339** | **2.411** | **.026** | -44 |
| Solicit | 3 | .18 | .393 | 5 | .31 | .602 | .773 | .445 | -5 |
| Structure | 6 | .35 | 1.222 | 14 | .88 | 1.784 | .986 | .332 | -8 |
| Support | 20 | 1.18 | 1.334 | 20 | 1.25 | .856 | .187 | .853 | No difference |
| Un-codeable | 0 | .00 | .00 | 9 | .56 | 1.999 | 1.126 | .278 | -9 |
| Totals per course | 263 | 1.41 | 2.612 | 351 | 1.99 | 3.380 | 1.861 | .064 | -88 |
| ASPP | 15 | | | 21.94 | | | | | -6.94 |

than exhibited in the Unit 3 Debate. The instructor in the Overt Approach responded four times in this discussion.

Table 7 shows ASPP rankings of emphasis for the Unit 9 Debates for both sections. As in Debate 9, *Evidence* statements were ranked first in emphasis for both sections, based on the ASPPs. Statements of *Elaborate, Argument,* and *Side-track* were the next three rankings for both sections, but in a slightly different order. That is, *Elaborate* was second for the Covert Approach and third for the Overt Approach, *Side-track* ranked fourth for the Covert Approach and second for the Overt Approach, and *Argument* was ranked third in the Covert Approach and tied with *Chat* for fourth place in the Overt Approach. (*Chat* was seventh for the Covert Approach.) Again, substantive statements of *Critique* and *Evaluate* were ranked lower. For the Covert Approach, *Evaluate* was sixth and *Critique* was eighth; for the Overt Approach, *Evaluate* was ninth and *Critique* was eleventh. Although only minimally observed in both sections, *Solicit* and *Structure* statements were higher in the Overt Approach compared to the Covert Approach.

**Types and averages of embedded statements within messages in the Unit 13 Debate**

The third debate occurred approximately two weeks prior to the end of the semester in Unit 13. As shown in Table 8, the Covert Approach (*n = 486)*) had approximately 68% more embedded statements than in the Overt Approach (*n= 320*). For both sections, the highest count was observed for *Evidence* (*n =207* for Covert Approach; *n = 104* for Overt Approach*)* followed by relatively high counts of *Chat* statements (*n =59* for Covert Approach and *n = 74* for Overt Approach), *Side-track* (*n =59* for Covert Approach and *Elaborate (n = 45* for Covert Approach and *n = 24* for Overt Approach). The Unit 13 Debate was also the first time we observed participants including *Partial Argument* statements (*n =15* for Covert Approach and *n = 13* for Overt Approach) in addition to *Argument* statements (*n* =18 and *n* = 15, respectively) within their messages. Only one *Un-codeable* statement was found

**Table 7.** *Rank Order of Emphasis of Averaged Embedded Statements in Unit 9 Debates*

| UNIT 9 DEBATE | | Order of Average | | Order of Average |
|---|---|---|---|---|
| **Evidence** | 6.53 | **1** | 6.94 | **1** |
| **Elaborate** | 3.35 | **2** | 3.44 | **3** |
| **Argument** | 1.41 | **3** | 1.81 | **4 (tie)** |
| Side-track | 1.35 | **4** | 4.19 | **2** |
| Support | 1.18 | 5 | 1.25 | 6 |
| **Evaluate** | 0.65 | 6 | 0.5 | 9 |
| Chat | 0.35 | 7 | 1.81 | **4 (tie)** |
| **Critique** | 0.12 | 8 | 0.25 | 11 |
| **Structure** | 0.35 | 9 | 0.88 | 7 |
| **Solicit** | 0.18 | 10 | 0.31 | 10 |
| Un-codeable | 0 | 11 (tie) | 0.56 | 8 |
| **Partial Argument**** | 0 | 11 (tie) | 0 | 12 |
| **ASPP** | **15** | | **21.94** | |

* Codes in **Boldface** indicate substantive type of statements
**No *Partial Argument* statements were found in Unit 3 Debate for either course section.

in the Covert Approach and none in the Overt Approach. The instructor in the Overt Approach responded one time in this final debate.

Based on the ASPP, the rank orderings of emphasis for each type of statement in the Unit 13 Debates are shown in Table 9. As with the previous two debates, *Evidence* statements continued to have the top ranking for both sections ($n$ = 12.18 and $n$ = 6.5, respectively) followed by, but in different ordering, *Side-track* and *Chat* (*Side-track* was 2nd and *Chat* 3rd for Covert Approach and reversed for Overt Approach.) This was the first time that Sidetrack was observed in the top four rankings for the Covert Approach. *Elaborate* ranked fourth in the Covert Approach and *Support* was fourth in the Overt Approach.

Both *Argument* and *Partial Argument* had low, but comparable percentages for both sections ($n$ = 1.06 and .88 for Covert Approach; $n$ = .94 and. 81 for Overt Approach). However, if both were to be combined, the order of argument may rank back into the top four rankings.

Similar to the findings in first two debates, *Critique* (6th in Covert Approach and 11th in Overt Approach) and *Evaluate* (*9th* in both sections) were ranked relatively in the lower two thirds for both course sections. Averages for statements of *Structure* and *Solicit* were minimal and in the bottom rankings in the Covert Approach (10th and 11th respectively) and in the Overt Approach (7th and 10th respectively).

**Follow-On Analyses**

Follow-on *t*-tests were conducted on the means of embedded statement codes for both course sections. (It is noted that data derived from the *t*-tests are more precise than and vary from the simple calculations of the averages of embedded statements and total ASPPs.)

Analysis of the overall **Substantive Statements** category indicated that significance was found in only the final, Unit 13 Debate. Students in the Covert Approach averaged significantly more substantive type of statements ($M$=3.17, $SD$=5.336) than did students in the Overt Approach ($M$=1.71, $SD$=3.353), ($t$(171.4)=-2.317, $p$=.022) overall. Further analyses of other Substantive embedded statement types revealed statistically significant differences for *Elaborate overall.* Students in the Covert Approach averaged significantly more *Elaborate* statements overall ($M$=4.14, $SD$=3.742) than did the students in the Overt Approach ($M$=2.56, $SD$=3.482), ($t$(97)=-2.164, =.033). It was found that in the Unit 3 Debate, students in the Covert Approach averaged significantly more *Elaborate* statements ($M$=6.41, $SD$=4.515) than did those in the Overt Approach ($M$=2.75, $SD$=3.856), ($t$(31)=-2.498, $p$=.018). The Unit 3 Debate was also the only forum that included the requirement of four posts for the Covert Approach students (recall that only three posts were required in the Overt Approach). Perhaps, this fourth post requirement might have encouraged these students to delve further into the issue at hand and to provide more details or to expand upon others' ideas.

Further analyses also yielded other significant differences for the substantive statements overall in the Unit 13 Debate. Further analyses revealed significant differences for statements of *Evidence* and *Critique.* Students in the Covert Approach averaged significantly

**Table 8.** *Frequencies of Embedded Codes for Unit 13 Debate*

| UNIT 13 DEBATE Codes Observed* | Covert *n*= 17 | Mean | Std. dev. | Overt *n*= 16 (+ in-structor)** | Mean | Std. dev. | *t*-value | Sig. | Differences between both sections |
|---|---|---|---|---|---|---|---|---|---|
| **Substantive** | **323** | **3.17** | **5.336** | **164** | **1.71** | **3.353** | **-2.317** | **.022** | +159 |
| Solicit | 7 | .41 | .939 | 4 | .25 | .683 | -.563 | .578 | +3 |
| Structure | 10 | .59 | 1.064 | 14 | .88 | .719 | .901 | .374 | +4 |
| Argument | 18 | 1.06 | 1.029 | 15 | .94 | .772 | -.381 | .706 | +3 |
| Partial Argument | 15 | .88 | 1.111 | 13 | .81 | .834 | -.203 | .840 | +2 |
| Critique | **27** | **1.59** | **2.526** | **2** | **.13** | **.342** | **-2.365** | **.030** | +25 |
| Elaborate | 45 | 2.65 | 3.020 | 24 | 1.50 | 1.966 | -1.284 | .209 | +21 |
| Evaluate | 11 | .65 | .862 | 6 | .38 | .619 | -1.036 | .308 | +5 |
| **Evidence** | **207** | **12.18** | **7.418** | **104** | **6.50** | **5.910** | **-2.421** | **.022** | +103 |
| Non-Substantive | 163 | 1.60 | 3.462 | 156 | 1.63 | 2.601 | .062 | .951 | +7 |
| Chat | 50 | 2.94 | 5.332 | 74 | 4.63 | 4.225 | 1.001 | .324 | -24 |
| Side-track | 59 | 3.47 | 4.989 | 37 | 2.31 | 2.750 | -.818 | .419 | -22 |
| Solicit | 7 | .41 | .939 | 4 | .25 | .683 | -.563 | .578 | +3 |
| Structure | 10 | .59 | 1.064 | 14 | .88 | .719 | .901 | .374 | +4 |
| Support | 36 | 2.12 | 3.039 | 27 | 1.69 | .946 | -.542 | .592 | +9 |
| Un-codeable | 1 | .06 | .243 | 0 | .00 | .00 | -1.000 | .332 | +1 |
| Totals per course | 486 | 2.38 | 4.555 | 320 | 1.67 | 2.993 | -1.858 | .064 | +166 |
| ASPP | 28.6 | | | 20.0 | | | | | +8.6 |

**Table 9.** *Rank Order of Emphasis of Averaged Embedded Statements in Unit 13 Debates*

| UNIT 13 DEBATE | | Order of Average | | Order of Average |
|---|---|---|---|---|
| **Evidence** | 12.18 | **1** | 6.5 | **1** |
| Side-track | 3.47 | **2** | 2.31 | **3** |
| Chat | 2.94 | **3** | 4.63 | **2** |
| **Elaborate** | 2.65 | **4** | 1.5 | 5 |
| Support | 2.12 | 5 | 1.69 | **4** |
| **Critique** | 1.59 | 6 | 0.13 | 11 |
| **Argument** | 1.06 | 7 | 0.94 | 6 |
| **Partial Argument** | 0.88 | 8 | 0.81 | 8 |
| **Evaluate** | 0.65 | 9 | 0.38 | 9 |
| **Structure** | 0.59 | 10 | 0.88 | 7 |
| **Solicit** | 0.41 | 11 | 0.25 | 10 |
| Un-codeable | 0.06 | 12 | 0 | 12 |
| **ASPP** | **28.6** | | **20** | |

* Codes in **Boldface** indicate substantive type of statements
Note: Simple calculations of averages are approximations and may cause variation in the ASPP totals.

more *Evidence* statements (*M*=12.18, *SD*=7.418) than did students in the Overt Approach (*M*=6.50, *SD*=5.910), (*t*(31)=-2.421, *p*=.022) and they averaged significantly more *Critique* statements (*M*=1.59, *SD*=2.526) than students in the Overt Approach (*M*=.13, *SD*=.342), (*t*(16.6)=-2.365, p=.030). This was the last debate of the term, and perhaps the increase in these two types of substantive statements might have been due, in part, to instructor guidance provided in the one-to-one feedback that followed each of the previous unit debates (and discussions).

Additionally, substantive statement of *Structure* was found to be significant for students in the Overt Approach. They averaged significantly more *Structure* statements overall (*M*=1.04, *SD*=1.383) than did students in the Covert Approach overall (*M*=.45, *SD*=1.045), (*t*(97)=2.406, *p*=.018). For the Unit 3 Debate only, students in the Overt Approach averaged significantly more *structure* statements (*M*=1.38, *SD*=1.455) than students in the Covert Approach (*M*=.41, *SD*=.870), (*t*(31)=2.325, *p*=.027). The Overt Approach instructor, generally speaking, posted three or more messages within a given debate's timeframe and included mainly statements of *Solicit, or Structure* and also *Side-track* (a Non-substantive statement) were within her posts. These students might have taken the lead of their instructor as a way to frame the idea or point of view within their posts.

Analysis of the overall **Non-substantive Statements** category indicated that students in the Overt Approach averaged significantly more non-substantive statements overall (*M*=1.61, *SD*=2.530) than did students in the Covert Approach overall (*M*=1.14, *SD*=2.446), (*t*(592)=2.321, *p*= .021). (The non-substantive category included a combination of *Chat, Support*, and *Uncode-able* statements.) Further analyses indicated that a significant difference for these three non-substantive statements was found only in the Unit 9 Debate; that is, the students in the Overt Approach averaged significantly more non-substantive statements (*M*=1.50, *SD*=2.722) than did those in the Covert Approach (*M*=.57, *SD*=1.206), (*t*(129.2)=3.080, *p*<.01). The non-substantive statements may have been used in the Overt Approach due to students following their instructor's lead, as the instructor provided such statements.

Students in the Overt Approach also averaged significantly more *Side-track* statements overall (*M*=3.40, *SD*=3.438) than did those in the Covert Approach overall (*M*=1.90, *SD*=3.360), (*t*(97)=2.186, *p*=.031). However, when conducting further analyses for a given debate, significance was found in both the Unit 3 and the Unit 9 Debates, but not for the debate in Unit 13. Students in the Overt Approach also averaged significantly more *Side-track* statements (*M*=3.69, *SD*=2.938) than did those in the Covert Approach (*M*=.88, *SD*=1.691), (*t*(23.7)=3.335, *p*<.01) in the Unit 3 Debate, and averaged significantly more *side-track* statements (*M*=4.19, *SD*=4.339) than the students in the Covert Approach (*M*=1.35, *SD*=1.869), (*t*(20.1)=2.411, *p*=.026) in Unit 9 Debate.

These findings and our observations for this case study are not to suggest the quality of students' responses in the Overt Approach was less than those in the Covert Approach. However, the findings do suggest that these students were more likely to use *Side-track* statements when their instructor was overtly present and involved. Yet, it is noted in the Overt Approach, the instructor gave more *Side-track* statements than did students in both the Unit 3 and 9 Debates. These instructor's *Side-track* statements were intentional and were provided to guide students' thoughts and views about the topic at hand. It is likely that because their instructor made such statements, students in this Overt Approach followed suit.

Finally, further analysis of non-substantive statements also found that in the Unit 3 Debate, students in the Covert Approach averaged significantly more *Support* statements (*M*=2.65, *SD*=1.801) than did students in the Overt Approach (*M*=1.50, *SD*=1.095), (*t*(31)=-2.193, *p*=.036 ). Perhaps, due, in part, to this being their first debate and their instructor not being directly involved during the forums, students might have been unsure of themselves, and thus may have opted to provide acknowledgements to each other.

**Discussion and Summary of Results**

Although it has largely been assumed that instructor guidance and interaction in online discussions or debates is beneficial and necessary (Berge, 1995; Maurino, 2007), our observations suggest something different in consideration of the instructor being actively involved in discussions to promote quality and quantity participation by students. Other researchers (Bonk, 2004; Dennen, 2008; Mazzolini & Maddison, 2007) have opined that too much interaction and involvement from the instructor may stifle student participation. That is, there might be situations in which instructor participation in discussions is not useful. For this case study, we observed that two instructors had different preferences for whether they were involved in the asynchronous discussions and debates. For this case study, both Overt and Covert Approaches provided opportunities for students to participate in a substantive manner, but with different methods for interacting with students. One instructor opted for facilitating and participating in the discussions (i.e., debates) and the other did not, but only to observe and communicate after the discussion had ended and outside of the

discussions. However, both instructors were involved and interacted with students through other means.

Although the first discussion (Unit 3 Debate) yielded the highest amount of statements and was consistent in terms of embedded statements than the other two debates, overall the majority of embedded statements within all three debates were substantive for both Approaches. Within the three debates, significantly higher averages for students in the Overt Approach were found for the substantive embedded statements of *Structure* and overall Non-substantive statements for *Side-track and a* combination of *Chat, Support*, and *Uncode-able* than for students in the Covert Approach.

Overall, *Side-track* statements were found more often in the Overt Approach, and were also made by the instructor, as compared to the Covert Approach. However, we observed that the Overt Approach instructor used such statements as a way to further develop and guide the debate on a given issue, identify misconceptions, or help students consider alternative views. Although not seen within a debate, the instructor in the Covert Approach also informed students of misconceptions and further expanded ideas about the issue through her unit summaries, but only after each debate had ended.

By contrast, significantly higher averages in the Covert Approach section were found for the embedded statements of *Elaborate, Evidence,* and *Critique,* and the non-substantive statement of *Support* than students in the Overt Approach section in the three debates. Although significant differences were found for *Critique* and *Evaluate,* the frequency counts indicate that they were minimal. This lack of critique and evaluation of others is not surprising, due to the fact that each course section included either all female or majority female students (only one male student was in the Covert Approach). Jeong and Davidson-Shivers (2006) and Davidson-Shivers et al. (2010) suggested that females tend to use a conversational style, even in debates, because it is less confrontational or argumentative; perhaps, this was also the situation in this particular case.

Participants in both Approaches also included non-substantive statements, mainly of *Chat* and *Support* in their posts. In the Unit 3 Debate, the Covert Approach group included more *Support* statements than did the Overt Approach group. As stated previously, these *Support* statements might have been a way for students to encourage or acknowledge other students' contributions. In looking at the frequency of *Support* statements, these students in the Covert Approach group decreased, while for students in the Overt Approach group, they were somewhat steady in frequencies. Additionally, after the first debate, no statistical differences were readily found between the two Approaches.

No differences between averages for the substantive statements of *Argue* or *Partial Argument* were found for either the Covert or Overt Approaches. In both Approaches, students made *Arguments* (and *Partial Argument* noted in the Unit 13 Debate). Even though there were significant differences, the students in both Approaches contributed statements of *Evidence* to support their point of view and *Elaborated* on what others stated.

Overall, students participated by using a substantive and non-substantive manner in each debate, with the majority of their statements considered to be substantive in nature. Based on what we observed and analyzed, both Approaches seemed to work for the two instructors. It may be a matter of instructor style of interaction and purpose; their preferences as how they participate in discussions appear to be beneficial to their students. Additionally, their students received guidance and interaction with the debates; for the Overt Approach it was during the debates and for the Covert Approach after the debates. Therefore, the students in both Approaches may have had sufficient instructor guidance.

For this case study, the instructors were intentional in their guidance of students through detailed directions for each debate (and discussion assigned, but not included). They also were active in the course and intentional by providing feedback. General feedback to all students varied by approach: the instructor of the Overt Approach providing it directly through her comments within the debates and the Covert Approach instructor afterward through her unit summaries of content and activities and sharing her point of view on the debate issue. Additionally, both instructors provided each individual with specific feedback on their participation and performance through emails and gradebook scores and comments.

Because there were various other ways (i.e., general and specific feedback, specific directions as guidance for participation, sharing points of view through unit summaries or lecture notes, and so on.) in which the two instructors interacted with and guided students, we suggest that further research is needed. A useful study may be one that investigates ways in which instructors interact with students in order to attempt to determine whether one has a greater impact on participation, as well as what students find helpful.

We also recommend that further research be conducted to determine whether differing instructor approaches have an effect not only on participation in online discussion, but also on student satisfaction. Mazzolini and Maddison (2007) examined student

satisfaction with online discussions; however, additional studies could explore whether differences in student participation and satisfaction are affected by the type and amount of instructor guidance and involvement provided. Additionally, a study could be conducted to determine whether participation in online discussion impacts not only student satisfaction, but also their overall learning. Perhaps, using a quasi-experimental or mixed method approach might be an alternative to case studies. Such studies could provide further evidence and, hence, inform and guide instructors as to how much and what type of interaction and involvement is necessary.

While the vast majority of research on online discussion and debates is focused on the student, we recommend that studies also focus on the instructor. Hence, our final suggestion is to conduct studies that explore online discussions from the instructor's point of view, intentionality, and philosophy of teaching to help explain how these factors might affect instructor guidance and interactions and overall approach.

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