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An Analysis of Online Discourse and Its Application to Literacy Learning

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Introduction

Teaching entry-level composition and literature courses at the college level in a variety of settings (university, private college, and community college) over the past nine years has placed me in the intersection of k-12 and higher education literacy learning. During this time frame, online communities such as MySpace and Facebook have grown in popularity among middle school, high school and college students. This same age group also spends a good portion of time communicating with each other through text messaging. As a recent Stanford Study suggests, these students are spending a lot of time writing outside of the classroom. And they are engaged in their outside of class writing (Keller, 2009).

Yancey (2009) in studying this phenomenon suggested that educators might better reach the needs of 21st Century learners by introducing online writing and discussion boards into the classroom. Thinking along these same lines and wanting to engage the multiple learning styles and needs of students (Gardner, 2007), I have incorporated WebCT discussion into my college composition and literature courses. However, few studies have been done to investigate how students communicate and interact with each other in online discourse and how this discourse can be used by instructors as a means to understand students' literacy learning. Because constructivist literacy theorists show literacy learning to be transactional and relational (Weaver, 1994; Moffet, 1983; Cambourne, 1995; Rosenblatt, 1976) and online discourse is also transactional and relational, I want to study my students' interactions with each other on an online discussion board throughout the course of one semester to analyze how they processed literacy learning.

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Writing theorists and instructors who study and implement this holistic language-centered approach of instruction are often described as sociopsycholinguists because their approach "emphasizes the *construction* of meaning, drawing upon the inidvidual's unique constellation of prior knowledge, experience, background and social contexts" (Weaver, 1994, p. 57). Viewing writing from this perspective changes the way we view students and writing. Rather than being empty vessels into which we pour our knowledge of writing, students became active participants engaged in the construction of meaning. In writing, students draw on their own knowledge of self, their interactions with others in the communities, and their prior experiences with language as they construct and compose. In this learning context, the instructor becomes a facilitator and guide offering support and guidance (Calkins, 1983; Graves, 1985; Goodman, 1986; Smith, 1986; Weaver, 1994). While Whole Language has often been credited with this philosophical instruction often referred to as constructivism, in the early twentieth century Dewey (1902) also noted that the social experiences of an individual student should be our starting point in considering how we plan and implement curriculum and that our first priority should be to provide a meaningful environment for authentic learning to occur.

The writing classroom lends itself to this type of meaningful and authentic environment because the acts of reading and writing are both transactional and relational (Weaver, 1994; Moffet, 1983; Cambourne, 1995; Rosenblatt, 1976). When we create and interact with a text, we draw on our prior experiences and understanding of language, self, and others. And in these interactions, a schema of discourse occurs. In simple terms, schemas are organized constructs made of prior knowledge, experiences, and feelings (Anderson, Spriro, & Anderson, 1977; Adams & Collins, 1979; Rumelhart, 1980; Iran-nejad, 1980; and Iran-Nejad & Ortony, 1984; Weaver, 1994). Thus, in communicating with others or in interacting with a text, we activate our

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schemas to make meaning and sense of the interactions. In turn, new meaning results from the interactions, and our schema is transformed by our social interactions.

In a first-year writing classroom, this might occur in the following manner. Students arrive in the writing classroom with various schemas about writing. When I ask them about their previous writing experiences, a common schema that students often present during the first week of classes is that writing is a linear process initiated by a writing assignment. Most typically, the looming writing assignment they visualize is the research paper. They fear the length, the grammar, the punctuation, and the grade. They bring scars of previous high school writing assignments and remember pages of their writing covered in red. Most students describe these experiences as leaving them with the impression that they cannot write.

Since I believe that writing is much more than what this schema represents, as a constructivist writing instructor, I would facilitate transactions and interactions within the classroom between the students, their writing, other texts, and myself to transform their schemas so that they might grow to see writing as recursive rather than linear. I would encourage them to see writing as a tool of inquiry and communication rather than as a final product or a grade. Additionally, I would facilitate learning that pushed them to find relevance and purpose in their writing.

But to create the types of interactions and transactions that might transform their schemas about writing, I would need to also realize that schemas are formed by and governed by self. Thus, instructors need to understand how students are processing self and engaging the self in interactions with others in the course and with the course learning. This requires an acknowledgment that “meaning arises during transaction . . . in a given situational context, an

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event during which meaning evolves." And, "the activation of schemas is influenced by our interpretation of the social context" (Weaver, 1994, p. 27).

As I began implementing and utilizing an online discussion board in my writing classroom, it occurred to me that it was recording students' processing of the self and the self's interactions with others. Thus, the discussion board became a rich recording of my students' interactions, transactions, and transformations of schema. To better understand how my students' self-systems and schemas were formed, I analyzed the transcribed recordings of their discourse on the online discussion board.

Thus, my discourse analysis was guided by the following questions:

- What themes and metaphors could be found in my students' online interactions?
- What did the themes and metaphors reveal about their perceptions of literacy and their processing of the course content?

Answers to these questions may help educators find ways to use the online discussion board as a tool for monitoring how their students are responding to and processing course material, especially in regards to literacy learning.

Methods

The online discourse that I analyzed is existing data from a College Writing and Research course that took place during spring 2009. I chose a student discussion question that was posted midway through the semester (Week 6). It was of particular interest to me because it received more responses than other posted questions during that week (26 responses from the 27 students enrolled in the course).

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This online component of the course invited students to further discussion of topics from the classroom on a WebCT discussion board. As part of this discussion, each student was asked to volunteer to be class discussion leader for at least one course period. Students chose the day they wanted to lead and facilitate class discussion. In leading the discussion, they were asked to summarize the discussion from class, react to the discussion, and then further discussion by asking a question of their classmates. Classmates were then asked to respond to one question a week and to also respond to one classmate. Thus, they were responsible for two discussion postings each week and could freely choose which of the discussions they wanted to participate in online. The discussion leader was not required to respond to his or her own question, but was asked to respond to a classmate. Students were not required to meet length or content requirements in their responses.

The course met for 50 minutes three days a week. When students were absent or on days that students did not volunteer to be online discussion leader, I served as online discussion leader. Students were also aware that I was reading postings and intermittently participating in online discussions. To avoid dominating or intruding in discussion, I kept my own postings to a minimum but would reference the discussions during classroom sharing. I would also use their interactions to inform my course curriculum decisions. Sometimes I made alterations and adjustments in our schedule and in my lesson plans based on their discussions. The existing WebCT data of the course offers a recorded text of our online transactions in discourse. Thus, through the course of the semester, we authored our own text as we transacted with the course readings and each other. As Rosenblatt (1976, 2004) might say, our transactions resulted in its own text.

Since Rosenblatt (1976, 2004) developed the Transactional Theory of Reading and Writing in her book *Literature as Transaction*, it was appropriate that I used her literature criticism theories in an English course while I explored how students transact with each other, course readings, and online discourse to find meaning. In my analysis, the word "text," was defined as Rosenblatt defined it: "a set of signs capable of being interpreted as verbal symbols. Far from already possessing a meaning that can be imposed on all readers, the text actually remains simply marks on paper, an object in the environment, until some reader transacts with it" (p. 136). Additionally, when I used the term "reader," like Rosenblatt I was implying that a transaction with a text had occurred. And in that transaction a meaning resulted.

To investigate how social transactions influenced learning and perceptions of learning in the online discourse, I used and applied the discourse analysis theories and principles of James Gee (1999) who in finding themes in discourse also called attentions to "I-Statements" and categorized them as "cognitive," "affective," "state and action," "ability and constraint," and "achievement" (p. 124). Looking at "I-Statements" proved especially helpful as I used Marzano's (2001) revised model of Bloom's Taxonomy to observe and categorize the systems students were using to process course content. Marzano's model proposed that students begin processing information with a "self-system," then move to a "metacognitive" system, and "cognitive" system before internalizing information as knowledge (p. 11).

As the "self-system" is the first step in this processing system, it seems imperative for instructors to understand how students define and reflect on self as they engage in learning processes. Looking at the I-Statements in the online texts, allowed me to identify when and how students were engaging "self" in the learning process.

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An English classroom is especially conducive to this type of reflection as self-reflection is inherent to the reading and writing process (Weaver, 1994; Moffet, 1983; Cambourne, 1995; Rosenblatt, 1976; Ballenger, 2000). But, as Crossley (2000) in her explorations of narrative analysis reminded us, reflection of self is also social. How we see ourselves also "relies on the feedback and evaluations we receive from others" (p. 12). Crossley (2000) used George Herbert Mead's metaphor of the " 'the looking glass self' " (p. 12) to illustrate our tendency to see ourselves through the eyes of others. To further this metaphor, we might see the online discussion board as "a looking glass self" that provides instructors with a useful tool for not only examining how students' perceive their selves and their learning, but also for how they interact with others and influence each other as they engage in the reflexive behavior of learning.

Like Gee (1999), Crossley also looked for themes, metaphors, and I-statements to analyze how individuals define themselves in relation to others. Operating from the premise that individuals tell narratives to understand themselves and their place in the world, narrative psychology also offered me an avenue for finding themes and metaphors as I sought to understand how my students defined self and "used language as a tool for the construction of reality." Adapting the theories of Crossley, I read my students' postings as narratives "where the experience of self takes on meaning only through linguistic, historical, and social structures" (p. 49). Thus, in analyzing the discourse for themes and metaphors, I also looked for linguistic patterns, historical significance, and social structures. These I found in online classroom behaviors by quantitatively looking at the length of postings and sentence structures and qualitatively exploring meanings of the behaviors.

Results

Themes and Metaphors: Perceptions of Success

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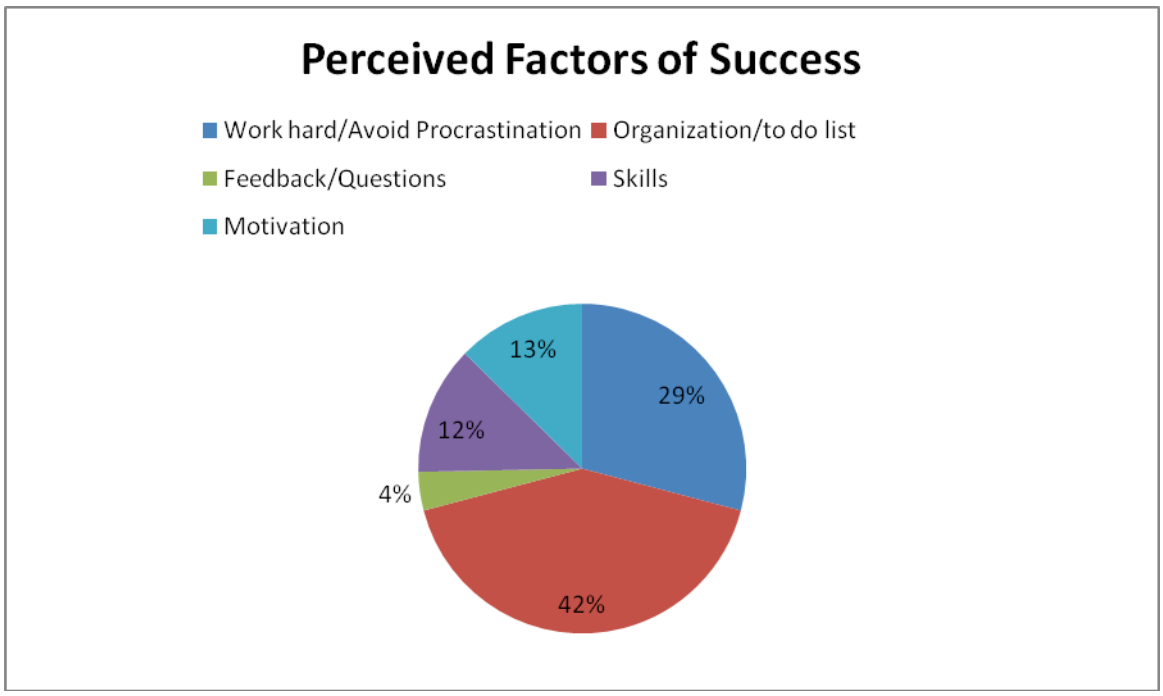
Self-Systems

While reading through the postings to the student posted question "What could you do for the remainder of the semester to improve upon your mission statement and complete your goals you set early in the semester?", I found the following themes repeated throughout the postings (listed in greatest frequency to least frequency): work, try harder, forget, remember, procrastination, literacy skills/resources, review goals, motivation, focus, bring materials to class, ask questions, organization, feedback, stress, attendance. For each theme, I created a category and then placed a tally within the category each time a posting applied to the theme. Some responses fit within multiple themes. And some postings mentioned a theme multiple times. For example, in the following posting "work" is mentioned three times. Thus, three tallies were placed in the work category for this theme. This posting also mentioned the literacy resources of formal and informal workshops. So, two tallies were placed in that category as well.

> I believe that if I concentrate extremely hard and put a lot of **work** into it I can achieve every aspect of my mission statement. I [think] that if I **work** with my classmates, participate in formal and informal workshops as well as **work** on it in my free time I will accomplish all of my goals.

I then examined the categories to see where they overlapped with each other. For example, since hard work often involves avoiding procrastination I merged the two into one category. With this type of thinking, I formed the five following categories: Work hard/procrastination, Feedback/Questions, Motivation, Organization/to do list, and Skills/Resources. The following pie chart shows the categories and frequency of the themes. As shown below, students believed that hard work (29%) and organized work (42%) were the largest factors in successful literacy learning.



I-Statements

As Crossley (2000) and Gee (1999) both found I-statements indicative of how students perceived themselves in relation to others, I listed all of the I-statements within the postings and the frequency of which they were used. I also categorized them using Gee's (1999) categories for I-statements (p. 125).

Cognitive

I think 12

I believe 2

Affective

I need 5

I wanted 1

State and Action

I agree 10

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I tend 3

I haven't 1

I don't 1

Ability and Constraint

I can 5

I could 2

I should 2

I would 3

Achievement

I will accomplish 1

I apply myself 1

Below is graph showing the results. As seen below, most of the I-statements were talking about students' states or actions. Students less frequently stated how they felt and seldom made statements about their achievement or accomplishments.

Behaviors

Length of Responses

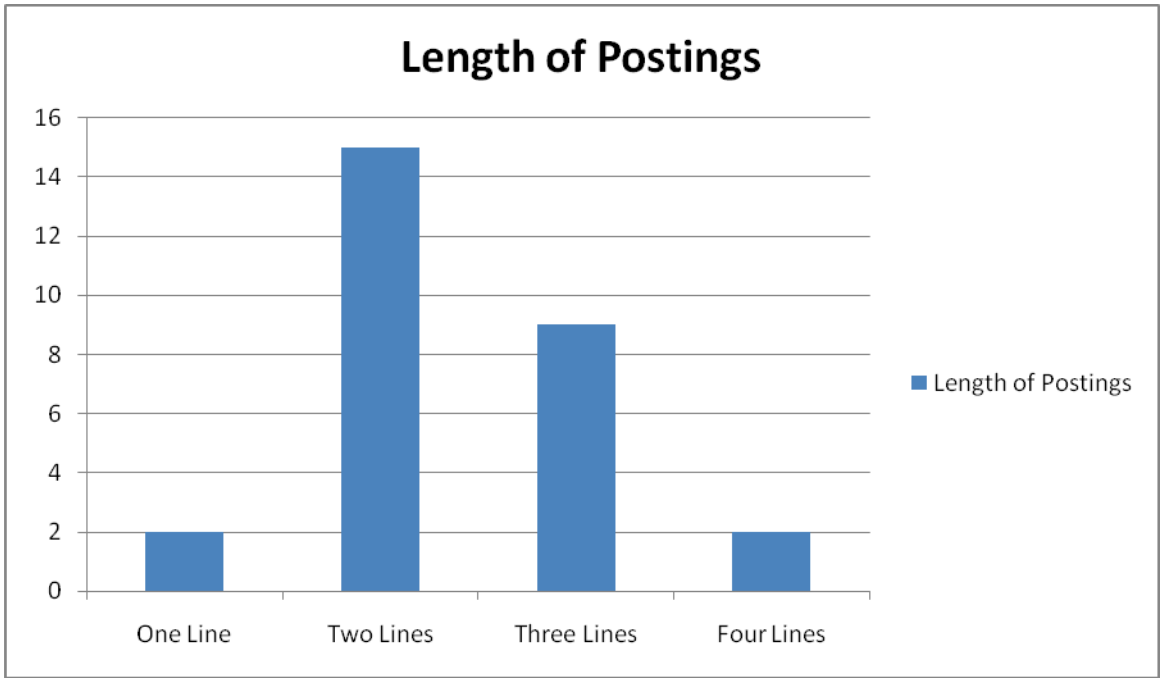
Students posted responses that ranged in length from 1-4 lines of text. In reviewing the posts, I observed the following frequency in length of postings.

One Line 2

Two Lines 15

Three Lines 9

Four Lines 2



Students most frequently responded with two and three lines of text. They less frequently responded with one and four lines of text.

Sentence Structure of Responses

Sentence structures of the postings show a tendency of students to respond in simple subject/verb responses. In examining the sentences, I found twenty-five subject/verb sentence constructions. Of these, all but six were active and began with “I.” The subject/verb sentences

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that were passive always followed an active subject/verb sentence that began with "I." Only one student used sentences that began with introductory, dependent clauses. And within that clause, I found the active subject/verb construction that began with an "I" statement. The independent clause following the dependent clause was a passive subject/verb construction.

In analyzing these findings, it appeared that students most frequently responded with active, subject/verb sentence constructions and then followed those sentences with passive, subject/verb sentence constructions. Thus, they framed any statements about ideas or content with their own actions and beliefs first. This can be seen in the following postings, which might serve as the typical pattern of postings.

> I usually don't go back and read my goals, but just think about things that I would still like to improve on, so it really isn't something that is set in stone, its more a improve as you go type of thing. [Grammar not corrected]

> I think that Brandon is right, it's important to review your goals frequently and also look to see if you should modify them.[grammar not corrected]

In both examples, you see the students beginning with active subject/verb independent clauses that are I-statements—"I usually don't" and "I think." These statements frame the passive subject/verb independent clauses—"It really isn't something" and "it's important." As these postings show what I stated above, students begin with how they see themselves in relation to each other and then state what they believe about the content.

Discussion

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Before discussing the implications of these findings, I first want to provide a context for the online discussion in which this student's question was posted. During the six weeks prior to this discussion, I had engaged the students in reading Stephen Covey's (1994) book *First Things First* as a way to discuss, form and achieve literacy goals and to see how they related to an individual's life mission. Literacy was presented as an intrinsic avenue for them to take an active role in their own learning. Thus, students had spent six weeks introspectively reflecting on their life mission and literacy skills and goals prior to this discussion. Almost midway through the semester, they were beginning to get serious about attaining the goals they had set for themselves. Posts previous to this question revealed a discomfort with the lack of set deadlines but acknowledgement that it was producing more quality writing. They were finding freedom frightening and unsettling but empowering.

In planning the curriculum, I had used a constructivist paradigm that engaged them in peer evaluation and feedback, writing workshops, and small group discussions. Workshops consisted of informal groups where they shared their writing with each other and provided feedback and formal workshop where papers were read in advance by myself and five other student participants and then discussed verbally within the group by myself and those who shared papers. Students could use the workshops at any stage of their writing process. Students were also encouraged to use the campus writing center and library research consultations as they worked on their papers. My intent was for students to find a writing process that worked for their own unique needs and improve in their own established literacy goals by using the resources provided to them in our class and on campus. They were not graded on individual papers but rather on class participation and a self-compiled portfolio that displayed how they improved in their established literacy goals and a reflection that discussed where they were in their literacy

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growth and how they would continue to grow after the course ended. Thus, growth was graded above skill.

Themes and Metaphors: A Looking Glass of Self

In response to the student posted question "What could you do for the remainder of the semester to improve upon your mission statement and complete your goals you set early in the semester?," the students' responses revealed that they shared the belief that organized, hard work would bring them success in achieving their goals. They were using what Gee (1999) called a cultural model to make sense of their learning. A cultural model might most easily be understood as a"storyline or image" that we apply to situations to make meaning and "to set up what count as central, typical cases" (p. 59). To set goals the students relied on their cultural model of success, which closely matched what Straus (1992) and D'Andrade (1984) found to be a common American cultural model of success. Both Struas and D'Andrade found Americans to believe that hard work allows people to meet their goals and that in turn results in success. Gee (1999) explained that "[i]t is not uncommon that cultural models are signaled by metaphors" (p. 69). As an example, Gee (1999) used Straus and Quinn's (1997) findings that people often compared marriage to work at a job or an investment of money. In other words, they were using metaphors of work and money to understand marriage and find success in it. My students were using the American cultural model and metaphor of work to find ways to achieve success in their literacy learning. They had accepted and were utilizing the model work = success.

To further understand this "storyline" they were writing, I applied Crossley's (2000) theory that we share narratives as we search for meaning in our lives. Thus, in reading the online narrative, we see the conflict as "complet[ing] your goals you set early in the semester." As they work to resolve the conflict, the theme and metaphor of organized, hard work embedded in

American society and the education system becomes a framework. They rely on this process that they have used and found successful in the past.

In fact, we might see them relying on the historical behavioral model of education. At this point in the semester, they are still relying on past learning behaviors that emphasized work and deadlines rather than process oriented, intrinsic learning that values feedback, literacy skills, and intrinsic motivation. They have not yet internalized the constructivist curriculum that is seeking to intrinsically motivate them in a process that values feedback from each other as they use literacy skills. Like most of American society, they still value the end product. This is shown in the rhetoric of the student's question which asks how they will "complete" their goals. Completing a goal implies that once attained it is finished. Unlike the literacy curriculum Covey and I had introduced that presented literacy goals as part of a life-long journey and process, they still saw goals as end products of hard work.

However, the emergence of the themes motivation (13%), skills (12 %), and feedback (4%), shows that their cultural model and metaphor of hard work is beginning to be questioned by my constructivist curriculum. Gee explained that cultural models, while often "emblematic of an idealized, 'normal,' typical' reality," may be "challenged by someone or by a new experience where our cultural models clearly don't fit" (p. 60). Looking closer at the postings where these themes emerged supports this. For example, one student posted a response that first applied the work metaphor but then valued feedback. The student then one minute later posted a response that valued reflection, writing, and process.

First Posting

I believe that if I concentrate extremely hard and put a lot of work into it I can achieve every aspect of my mission statement. I think that if I work with my classmates,

participate in formal and informal workshops as well as work on it in my free time I will accomplish all of my goals.

Second Posting

I agree with [name removed], I think that if I wrote down my thoughts when I'm deep in them it would help my writing process and eventually improve my writing dramatically. [Grammar not corrected]

In analyzing this students posting, we can see that the student begins by valuing "hard work" and then applies the American work leads to success metaphor. But, the student then integrates "work" with receiving feedback from classmates in the phrase "if I work with my classmates." This shows that the work metaphor is being challenged by the course curriculum's value of receiving feedback from others in the writing process. The student then mentions resources provided from the course that allows for feedback from classmates when he mentions participating in "formal and informal workshops." And while his final statement indicates that he still sees "goals" as an end product "accomplish[ment], his second posting one minute later shows that this notion is also beginning to be challenged, as he mentioned "if I wrote down my thoughts when I'm deep in them it would help my writing process." This statement showed a value for writing down thoughts and reflection as part of a writing process—not as an end product to accomplish. Additionally, his wording "eventually improve my writing" revealed that he wass beginning to see literacy as slow process that improves. This was a shift away from the work=product=success=end theme and metaphor.

A Revised Model of Bloom's Taxonomy

Using Marzano's (2001) revised model of Bloom's Taxonomy as lens for analyzing these postings provided another way to look at how students' were applying self in the constructivist

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literacy curriculum that I framed the class with. Remember, as I mentioned in the purpose section, Marzano's (2001) model of behavior proposed that new information and tasks presented students' self-systems with a decision "to engage" in learning. If their Self-System decides not to engage then they continue in their current behavior. If they decide to engage, their Metacognitive System "sets goals and strategies" (p. 11). These goals and strategies then become processed as either relevant or non-relevant information with any prior knowledge they have about the new information or concept.

In applying this model, it would appear that students decided to engage in the constructivist literacy curriculum as they began to use their Metacognitive System to set goals and strategies. While I had required this as part of the curriculum, their discussion of goals and means of applying strategies for learning shows in an engagement with the curriculum. And if they are only engaging because it is required, this would really only re-echo the behavioral educational metaphor of work they are applying to process the new information. Doing what you are told and doing it well brings success. As they worked (about midway through the semester) to process the curriculum with their "Cognitive System" they utilized their prior knowledge of literacy by employing the behavioral organized, work metaphor that they had used in English courses prior to my course.

Examining their use of "I-Statements" gave another lens to see how they were engaging their Metacognitive and Cognitive systems. In looking back at the "I-Statements" graph in the Methods section, you will recall that most of the "I-Statements" were categorized as State and Action (15), Ability and Constraint (12), and Cognitive (14). This validates my findings in the previous process. The State and Action and Ability and Constraint categories would show an employment of the Metacognitive system that "sets goals and strategies." Statements such as "I

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can" (5) and "I agree" (10) show goal setting and strategizing behaviors of the Metacognitive system. Additionally, the postings validated Gee (1999) and Crossley's (2000) claims that self is linked to perceptions of others. In engaging the Self-System and moving through the Metacognitive System, the most frequent I-statement was "I agree," and this statement most frequently began postings. Thus, in setting goals and strategies for "self," students began by reflecting on their actions in relation with others' action. It appeared that they read their classmate's postings, reflected on their own behaviors, and then agreed that they behaved in a similar manner. Students defined their own actions in relation to others' actions. The total of these combined categories (27) would also indicate that most students at week six were still engaged in the Metacognitive System of the behavior model.

Yet, some students were beginning to engage in the Cognitive System processes as they posted cognitive statements of "I think" (12) and "I believe." Interestingly, those students who were engaging in the Cognitive System also were the students who mentioned constructivist strategies. For example, consider the following postings:

> I think that Brandon is right, it's important to review your goals frequently to see if you should modify them.

> I think that if I would try to motivate myself to do some of my homework when I have a chance to do it, it would keep me from being stressed out and it would help me reach my goals better.

> [. . . .] I think that if I wrote down my thoughts when I'm deep in them that it would help my writing process and eventually improve my writing dramatically.

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The first post began with the cognitive statement "I think" and then proceeded to agree with another student that reviewing of goals is important. But what is most significant is the student's acknowledgement that goals are not always permanent. They sometimes need to be modified, which showed an acceptance of the revision process of the recursive writing process of a constructivist curriculum. This student in entering the Cognitive System was beginning to internalize the curriculum and also saw his classmate as internalizing the curriculum. I also saw this as moving beyond a behavioral engagement where the student was doing what he saw I wanted him to do. He wasn't agreeing with me; he was agreeing with a classmate. He was seeing his classmate's opinion as valuable—which is also part of the constructivist literacy curriculum. Seeking feedback from others helps us in our own growth and learning. This posting showed that this student was beginning to accept and value his classmate's feedback.

The second posting also began with the cognitive "I think" statement and then showed a value for motivation as the student believed it would alleviate stress and allow her to reach her goals. A value for "motivation" and desire to use it as a means for reaching goals showed a shift away from the behavioral "work" metaphor of learning and a step toward embracing a more intrinsic learning model that sees self motivation as key to success. It also showed a realization that stress (linked with the previous behavioral work model) as a hindrance to reaching goals.

While the third posting has previously been discussed in this paper, it also showed a movement from the cognitive "I think" statement toward an acceptance of the constructivist curriculum being introduced. Shortly after stating "I think" he concluded that working with others and receiving feedback from them is an effective strategy in reaching his set goals.

In conclusion, the discussion board not only offers students a chance to engage their Self-System as they engage in processing new curriculum, it also allows for instructors to monitor

how students are processing the new curriculum. Analyzing the use of "I-Statements" and examining how they are being used in conjunction with existing learning themes and metaphors provides instructors with a lens for understanding their students' engagement in the learning process. In reading and examining online classroom texts, instructors can find another means for listening to the voices of their students and adjusting curriculum according to their students' needs.

Additionally, the social interactions of the online discussion board revealed a natural tendency for students to seek feedback from others as they learn and process new information. Thus, it would appear that the constructivist literacy theories that engage students in social learning processes more closely match the way students learn outside the classroom than the behaviorist work models that have been employed in k-12 curriculum during the NCLB era.

Online Behavior

Linguistics

The structure of the postings showed a tendency for students to most frequently use the active, independent subject/verb clause. This would reiterate the earlier findings that students were employing the Metacognitive and Cognitive Systems of the model as they processed the new information. Seeing themselves as actors engaged in setting goals and strategies they began sentences with "I." And as they progressed from the Metacognitive System to the Cognitive System, the statements still began with "I" as they thought about the new material and discussed their beliefs about it.

Historical significance

As the students engaged in processing the new constructivist literacy curriculum, they engaged the behavioral "work" model that they had used in past educational setting. This "work"

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model takes on historical significance as it showed my students employing the belief system of the NCLB era which rewards organized, work (test testing) with successful scores that equate intelligence and success. The above analysis of the "Self-System" as it processed the constructivist curriculum and moved through the Metacognitive and Cognitive Systems showed how this metaphor was utilized as prior knowledge to begin to employ the new constructivist model of learning that placed value on feedback, motivation, and process rather than end product results. So while quick and surface readings of the postings caused me to believe students were rejecting the constructivist curriculum I was introducing, further and closer analysis that looked at their postings in relation to Marzano's model of behavior revealed that students were not rejecting the curriculum but rather utilizing their prior knowledge to process and move toward accepting and applying the curriculum.

These findings might prove useful for other educators for identifying the prior paradigms and structures students are employing to process new curriculum. In particular, instructors may find it helpful to understand their students' habits and behaviors within its historical significance as they introduce new and potentially conflicting paradigms of learning in the classroom. The online discussion board may offer instructors a helpful lens for viewing and making sense of learning tensions within the classroom. Additionally, instructors may come to find that the tensions are not counterproductive but rather part of the learning process as students engage and process the new information.

Social Structure

The length of postings and structures of postings all revealed that students respond very similarly on a discussion board. Most of the postings were two or three lines in length. Two line postings were most frequently followed by two line postings and three line postings were

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followed by three line postings. The structures of the postings showed a tendency to first state whether or not you agreed with others on the discussion board before stating any ideas or thoughts about the course concepts. Most agreement statements were stated "I agree" and were the first two words of the postings. This would indicate that the students had a social desire to agree with others and echoes sociolinguistics' observations that individuals tend to see themselves in relation to others (Gee, 1999; Crossley, 2000).

Literacy Theory Applied

My observations of my students interactions with each other and the text of the online discussion board reiterated the theories of constructivist literacy theorists that literacy learning is transactional (Weaver, 1994; Moffet, 1983; Cambourne, 1995; Rosenblatt, 1976; Ballenger, 2000) . As my students engaged in the curriculum, they transacted with each other and the online discussion text as they processed the curriculum and engaged the Self-System through the Metacaognitive and Cognitive Systems of learning. In analyzing how they engaged with the curriculum, it became apparent that the Self-System relied heavily on transactions with the online text as students sought to identify themselves in their own learning. Learning was social as students looked to others' postings to form the length, structure, and content of their own postings. In conclusion, the online discussion board and the literacy learning became inextricably bound as they employed the same means of engaging students in literacy learning. Likewise, the discussion board not only provided a "looking mirror of self" (as cited in Crossley, 2000, p. 12) for students, it also provided one for me as an instructor as I was able to analyze and examine my students' literacy learning.

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