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Community College Faculty and Conceptualizations of Disciplinary Writing

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Abstract. In this study, the authors use metaphor analysis to uncover community college faculty conceptualizations about disciplinary writing. The findings suggest that faculty have multiple beliefs, attitudes, and perceptions of disciplinary writing and tend not to articulate differences between disciplinary literacy practices and general writing practices. Implications of this study include the importance of faculty considering how their conceptualizations of writing can support students' understandings of, and practices in, writing throughout the college experience.

Keywords: Metaphor analysis; disciplinary writing; community college

Academic Writing

In the United States, community colleges occupy an important segment of the postsecondary educational milieu. Designed to serve local student populations, their missions can vary widely (Dougherty & Townsend, 2006); however, shared characteristics of many community colleges include foci as open admission institutions that, depending on students' goals, provide a 2-year associates degree or vocational certificate, and/or prepares students for transfer to a 4-year college. A large number of students attend community colleges; the American Association of Community Colleges lists approximately 7.3 million students enrolled in the fall of 2014 (AACC, 2016). Given that writing coursework, including English composition, is a nearly ubiquitous element of curriculum for students in undergraduate contexts (Fleming, 2011), examining elements of writing instruction in community colleges is an important focus.

While the goals of community college writing courses often reflect local contexts, they traditionally share a common aim of preparing students for college-level general (or academic) writing; this preparation is done through the learning and application of universal rules for writing, often referred to as academic writing conventions. As Hyland (2002) noted, the teaching of formulaic and model-like practices in current composition courses is based on the expectation that to students will eventually learn how to work toward independent construction as

they approach higher complex tasks within academic writing. Independent construction is a critical and intended outcome of general composition courses because it assumes the transfer of writing knowledge to other domains. For example, when considering the element of audience, students should be able to transfer that concept to other writing contexts and be aware that they may have to adjust their language to fit the rhetorical demands of the audience. Likewise, Faggella-Luby, Graner, Deshler, and Drew (2012) promoted general writing instruction and suggested that "general instruction seeks to uncover and teach strategies, routines, skills, language, and practices that can be applied universally to content area learning and are by definition generalizable to other domains" (p. 69).

Scholars have noted that students may discover that what they learn from a general instruction approach does not easily transfer to other contexts (Perkins & Salomon, 1994) or to discipline-specific courses (North, 2005a), especially if they have no formal training on adapting general strategies for disciplinary uses. In the same vein, some researchers argued that even though disciplines share some commonalities in their academic language and practices, each discipline engages in their very own unique practices in language, syntax, and conventions (Moje, 2015; Shanahan & Shanahan, 2008, 2012; Snow, 1987).

In fact, as students move forward in their coursework into more discipline-specific courses, some scholarship suggests that a reliance on overgeneralized writing rules could actually burden students and constrain their ability to write (Bartholomae, 1985; Hull & Rose, 1990; Rose, 1998; Shaughnessy, 1977). That is, an adherence to generic writing structures may mislead them about the underlying goals and demands of academic writing in the various disciplines (Sperling, 1996) and students may find that their writing skills valued in one course may be unwelcome in another (North, 2005a; Smagorinsky, 2015).

Academic Writing as a Discipline-Specific Process

Although academic writing conventions are routinely and successfully taught in basic writing and first-year composition courses (Bartholomae, 1985; Hjortshoj, 2010), some scholars have proposed that restricting the teaching of college writing to composition courses may not be optimal in helping students succeed in their advanced coursework writing tasks (Carter, 2007; Russell, 1991). Rather, they posit that an increased focus on disciplinary practices, in this case writing, may be a more effective route to increasing students' writing proficiencies in a variety of content-area courses, largely due to the idea that writing contributes to the generation of knowledge and assuming that each discipline's knowledge construction varies (Shanahan & Shanahan, 2008; Moje, 2015; Smagorinsky, 2015). As Moje (2015) argued, "Students cannot learn the literacy practices of the discipline if they are not engaged in the everyday work of the discipline" (p. 261). Linton, Madigan, and Johnson (1994) explained that this is not to say that general composition instructors are not doing their job sufficiently; rather, the idea of disciplinary writing is to counter the idea that a couple of composition courses is all the writing instruction students need to be successful for the rest of their academic writing experiences. That is, disciplinary writing does not serve

as a replacement for generalized academic writing coursework, but rather as a necessary progression that is part of students' writing and knowledge development.

Two approaches to writing in college have explicitly attempted to build in disciplinary foci to writing instruction: Writing Across the Curriculum (WAC) (Russell, 1990; 1991; Stout & Magnotto, 1988) and Writing in the Disciplines (WiD) (Deane & O'Neill, 2011). There are differences between WAC and WiD; for example, the former stresses writing instruction by content teachers and the latter emphasizes the role that disciplinary conventions play in shaping text genre. A goal of WAC would be for instructors in the discipline to use writing as part of the learning process, while a goal of WiD would be for learners to explicitly understand the writing conventions within a particular discipline. As Ochsner and Fowler (2004) noted,

> A convenient and generally accurate way to distinguish between WAC and WID is in the context of curricular goals: The first 2 years of undergraduate education are most often associated with WAC initiatives to enhance general knowledge; the last 2 years, with WID initiatives to refine discipline-specific knowledge. (p. 119)

Despite those differences, both WAC and WiD are based on the idea that writing is necessarily part of the discipline learning process and each discipline has a set of socially-constructed expectations and parameters.

However, there are problems inherent in implementing WAC and WiD approaches that can center on writing instruction taking place outside of the basic writing or composition classroom (Walvoord, 1996). Fulwiler (1984) described issues in an early WAC initiative that revolve around faculty buy-in and in theoretical underpinnings of WAC that run counter to some faculty's own implicit theories of learning and teaching. Additionally, Williams (2003) suggested content-area faculty might assume that they do not have sufficient pedagogical knowledge to teach writing in their classes and, even if they did, the large amount of content they need to cover would preclude any additional instruction in writing.

Some studies have indicated that faculty resist the idea of writing instruction falling partially within the duties of disciplinary instructors because they see themselves as content-specialists and not as writing teachers (Brzovic & Franklin, 2008; Fulwiler, 1984; Richardson, 2004). Yet, such discipline-specific writing foci are generally assumed to be requisite aspects of gaining knowledge in a content area as well as communicating effectively in that content area.

The purpose of this study is to better understand instructors' viewpoints on that issue. Specifically, we set out to uncover how community college instructors perceive writing in their field. Understanding that faculty have varying perceptions and thoughts about writing is not a novel idea; however, conducting this study allowed us to make those conceptualizations more explicit in order to understand values and perceptions that may guide writing instruction.

Understanding How Faculty Members' Beliefs Affect Instruction

The reason that we focus on instructor *beliefs* about the nature of writing is that beliefs – conceptualizations – play a significant role in understanding how people construct knowledge (Buehl & Alexander, 2001; Schommer, 1990). Given the idea that differing beliefs about writing knowledge affects the understanding of the writing tasks and the progressive nature of writing improvement, it becomes important to study the perceptions and belief systems that faculty members may have about disciplinary writing. If, as White and Bruning (2005) suggest, writing quality is linked to implicit writing beliefs, then understanding how faculty members conceptualize disciplinary writing will provide insight into how writing is currently being discussed, used, and implemented in the disciplines. In other words, understanding teacher conceptualizations of writing provides us a glimpse of how that belief may affect their instructional approaches about writing.

One way to get at the conceptualizations of faculty members is by employing metaphor analysis. Since metaphor analysis provides a method for understanding abstract perceptions, it enables researchers to have a method for studying those conceptualizations. Several studies in general education and pedagogy employed metaphor analysis as a research tool including studies on in-service teachers' attitudes on classroom practices and teachers' beliefs about learning and teaching (Knowles, 1994; Leavy, McSorley, & Bote, 2007; Saban, Kocbeker, & Saban, 2007). These studies, Kramsch (2003) argues, help teachers articulate and construct representations of their experiences and of themselves to make sense of their everyday experiences. Although there have been many scholars who study conceptualizations of faculty members, education, and learning and teaching, there have not been many conceptualization studies conducted on the topic of writing.

Some scholars have employed metaphor analysis on the study of writing, albeit from a student perspective. Armstrong (2008) used metaphor analysis to investigate students' conceptualizations of academic writing and found that students' beliefs about academic writing are wide ranging and evidence of the prior knowledge and attitude students bring into the classroom. Paulson and Armstrong (2011) examined students' perceptions of college reading and writing. They suggested that educators should take into consideration the wide variety of beliefs and knowledge about academic literacies that students bring into the classroom to better understand how to support students' writing development. The current study aims to take the conceptualization of writing a step further, moving from academic writing to disciplinary writing, and focusing on a faculty perspective rather than a student perspective.

Research Question

Understanding the variety of beliefs faculty members hold about disciplinary writing can provide insight into their pedagogical assumptions surrounding writing instruction. The research question guiding this study is as follows: How do faculty members in community colleges conceptualize disciplinary writing?

Theoretical Framework

This study aligns with the theoretical frameworks of metaphor analysis (Kovecses, 2010; Lakoff & Johnson, 1980) and the socio-cultural theories of social practice (Gee, 2001; Street, 1993). Because metaphor analysis has two major roles in this article, it is discussed from two different angles: metaphor analysis serves this study (1) as a theoretical framework because of its role in conceptual and cognitive theory, and (2) as a qualitative investigative tool and procedure.

Metaphor Analysis as Theoretical Framework

Lakoff and Johnson (1980) challenged the traditional view that metaphors are only literary and of poetic origin, noting in their cognitive linguistic view of metaphor that metaphor reveals social and cognitive constructs. Furthermore, they described how this conceptual metaphorical structure enables us to understand our perceptions and experiences when using language as proof of that system.

Metaphorical language enables us to understand one kind of experience in terms of another kind of experience (Kovecses, 2010; Lakoff & Johnson, 1980). Thus, this theoretical approach to metaphor as cognition relies on the idea that language and metaphor impose structure on thought (de Guerrero & Villamil, 2002), enabling us to make sense of, and understand, the way we perceive the world and our everyday experiences. In addition, because language is a function of social practice, this study also relies upon the influence of socio-cultural theories.

Socio-cultural Theories

This study also emerges from the work of socio-cultural theorists, where learning is viewed as a function of social interaction, such as through language, activity, context, and culture (Gee, 2001; Lea & Street, 1998; Street, 1993). For the purposes of this study, we understand disciplinary writing as a construct developed and honed by social practices. Gee (2001) argued,

> Different patterns in vocabulary, syntax (sentence structure), and discourse connectors (devices that connect sentences together to make a whole integrated text) constitute different social languages, each of which is connected to specific sorts of social activities and to a specific socially situated identity. (p. 716)

Along these lines, each discipline, then, contains its own language, so to speak. In addition, Gee continued, "the meanings of words, phrases, and sentences are always situated, that is, customized to our actual contexts" (p. 716). Thus, language will be a direct effect of a person's environment, culture, social grouping, and setting.

With these frameworks, metaphors are employed to investigate how people conceptualize ideas as well as understand their conceptualizations as constructs of social practice based on their personal experiences. This study will apply those two theoretical frameworks in exploring faculty members' perceptions of disciplinary writing as situated language processes.

Research Design

The purpose of this study was to understand how faculty members from community colleges conceptualize disciplinary writing. Following Creswell (2013), data were collected in multiple ways and from a broad to narrow perspective, to encapsulate a rich understanding of instructors' beliefs, attitudes, and perceptions of disciplinary writing across various fields of academia.

Methods

Data were collected through an electronic survey and were analyzed using metaphor and discourse analysis through a process of open coding (Glaser & Strauss, 1967; Saldana, 2013; Strauss & Corbin, 1994). As Armstrong, Davis, and Paulson (2011) suggested, data were then triangulated following the metaphor analysis procedural methods and through peer checks to increase the trustworthiness of the findings (Creswell, 2013; Saldana, 2013).

Participants

The participants in this study were community college faculty in the state of Texas, recruited through the American Association of Community Colleges (AACC) database using a maximum variation sampling method. This sampling method enabled researchers to purposefully sample selected people or settings to represent the wide variety of experiences related to the phenomenon of interest (Creswell, 2013), and Texas provided a range and variety of instructors, community colleges, and geographical settings to sample. In this case, the phenomenon of interest is how a variety of faculty from different institutions, educational backgrounds, settings, and disciplines understand disciplinary writing.

Recruitment of participants

To capture this diversity of perceptions of disciplinary writing, the AACC database was used to harvest emails in our attempt to recruit a large variety of faculty. The database provided a direct web link to each of the community colleges' webpages (n=72 colleges), which were hand searched for email addresses of faculty teaching within six specific subject areas described in the next section.

For the scope of this project, it would have been impossible to survey every discipline, so the disciplines of interest were purposefully selected. Discipline-specific instructors were chosen according to disciplines that contain the most common general core education courses that students take to fulfill their general studies: biology, chemistry, history, mathematics, psychology, and sociology.

Participant characteristics and demographics

The participants who responded to the survey (n=117) come from a wide variety of educational backgrounds, employment status, and professional roles and have a variety of experiences faculty with writing within their disciplines. Most of the participants have a Master's degree (50.4%) or doctorate (47.9%), work full-time without tenure (51.3%), and spend up to seven hours a week (82.1%) working on academic writing tasks, the majority of which are research articles

(27.4%) and research reports (21.4%). Respondents have a rich pedagogical background, as more than a third had 20 or more years of teaching experience.

Data Collection

To gather a broad view of how faculty members conceptualize disciplinary writing, participants were recruited with an email that contained a 17-item survey. The first fifteen questions elicited demographic data, educational background information, and experiences with writing as a writer and as an instructor discussing writing conventions within a specific discipline. Once participants finished answering questions about their disciplinary writing habits, they were asked, through the last two questions on the survey, to complete two fill-in-the-blank stems to create metaphors about their perceptions of disciplinary writing.

Metaphor analysis as a procedure

Metaphor analysis (Kovecses, 2010; Lakoff & Johnson, 1980) explains a basis for describing everyday cognitive structures as a way to uncover individual and collective patterns of thought and action. A metaphor "is defined as understanding one conceptual domain in terms of another conceptual domain" (Kovecses, 2010, p. 4), which reflects images of social phenomenon by "mapping two often incompatible domains into one another" (Kramsch, 2003, p. 125).

Lakoff and Johnson's (1980) cognitive theory of metaphor allows abstract conceptualizations, which are difficult to see and understand, to become tangible through metaphors, which can be looked at, studied, and understood. As Paulson and Armstrong (2011) explained, "metaphor analysis is an investigational and analytical approach that examines metaphors articulated by participants, and then categorizes those metaphors in terms of the themes that emerge from the analogical mappings that underlie participants' metaphors" (p. 495). These mappings "provide much of the meaning of the metaphorical linguistic expressions that make a particular conceptual metaphor manifest" (Kovecses, 2010 p. 14), which allows researchers to get at conceptualizations. This procedure is fleshed out in the next section using details from this study.

Data Analysis

In an open-ended survey regarding faculty's beliefs about writing specifically within their respective disciplines, metaphors were elicited in the form of "fill-in-the-blank" sentences with a simile construction. Faculty were asked to conceptualize disciplinary writing in two ways. The metaphor elicitation statements were:

- My writing in my field is like _____. Explain. _____.
- Disciplinary writing is like _____. Explain. _____.

The stems of these sentences are considered the targets ("my writing in my field" and "disciplinary writing"), whereas the source is the metaphor that participants use to explain their conceptualizations of personal and disciplinary writing. The completed statements become what are considered metaphorical linguistic expressions, or MLEs (Kovecses, 2010).

Participants were asked to explain their metaphors based on Armstrong, Davis, and Paulson's (2011) triangulation methods for metaphor analysis that suggest researchers should engage in metaphor checking with the participant to ensure that the researcher's understanding is on par with what the participant meant. An additional peer check was conducted on the MLEs to further validate the findings.

There were 133 metaphorical linguistic expressions collected and subsequently coded by a process called mappings. Mappings are "a set of systematic correspondence between the source and the target in the sense that constituent conceptual elements of B [the source] correspond to constituent elements of A [the target]" (Kovecses, 2010, p. 7). Once the mapping of the source domain on the target domain occurs with the properly shared elements, the knowledge about the source that arises are called "metaphorical entailments" (p. 122).

Mapping and entailment example

To provide an example of how metaphor analysis proceeds, an example of a faculty participant's metaphor from this study follows.

1. Identify the metaphorical linguistic expression (MLE):
   - *Disciplinary writing is like a snowflake.*
2. Identify the target domain:
   - Disciplinary writing
3. Identify the source domain:
   - Single or multiple ice crystals falling through the atmosphere
4. Mappings of *snowflake*:
   - Each is a small piece, or unit, of snow – single/multiple ice crystals.
   - No two snowflakes are the same.
   - Each snowflake displays its own specific symmetry or pattern.
5. Snowflake mappings onto target domain (metaphorical entailments):
   - Disciplinary writing is a type of writing.
   - No two disciplines are the same.
   - Each discipline has its own conventions, styles, and characteristics of writing.

In this example, disciplinary writing, from this survey respondent's perspective, suggests that writing is not the same across disciplines and that each discipline has its own unique way of using writing. Implications of this perception of disciplinary writing are that the instructor may feel that general composition methods of teaching writing may not be preparing students to succeed in the various disciplinary ways writing is being used. This connects to the literature discussed earlier. Scholars have noted that some conceptualizations can cause a lack of preparation or hinder success. For example, Sperling argued that a rigid adherence to generic writing structures may mislead students about the underlying goals and demands of academic writing, which could contribute to them potentially assuming writing is to be approached in the same manner in each discipline. In addition, Sperling (1996), North (2005a, 2005b), and Chanock

(2000) all suggested that what counts as "good writing" or a "favorable writing characteristic" in one discipline may not be valued as "good writing" or a "favorable writing characteristic" in another. Thus, with this perspective, someone describing disciplinary writing as specific or directly tied to the discipline might believe that general composition instruction is not sufficient to support students to write in various disciplines.

Operationalizing and categorizing MLEs

These MLEs, using the analysis procedure described earlier, are categorized and operationalized. Cameron and Low (1999) suggested that analysis of metaphors should be operationalized in a manner related to the research topic at hand. Analyses and findings are as follows.

Results

There were a total of 133 metaphorical linguistic expressions (referred to as MLEs from this point forward) produced by respondents. These MLEs provided a variety of perspectives on disciplinary writing:

Ideas similar to general writing:

- *Disciplinary writing is like diagramming sentences.* It requires pulling out key facts and presenting them clearly so they are understood before looking at the entire process.

Positive experiences:

- *Disciplinary writing is like icing on a cake.* Because it adds something sweet to something already wholesome.

Negative experiences:

- *Disciplinary writing is like torture.* I have to restrict my writing to the ability of the audience to understand

Nonspecific:

- *Disciplinary writing is like water*. Is water, just water in all cases: what are your thoughts?

Specific:

- *Disciplinary writing is like heart surgery.* Only an expert can do it.

Although each participant created metaphors based on his or her own unique experiences and perspectives on disciplinary writing, several commonalities appeared across individual perspectives, which were revealed during the coding of the MLEs as conceptual metaphors.

In the aim to investigate how disciplinary instructors may differ in their conceptualizations of disciplinary writing, categorizations of data examined faculty members' metaphors as 1) explained with either a general or disciplinary description, and 2) as thematic groupings of MLEs into conceptual metaphors. The results are as follows.

Thematic Categorizations

Following metaphor analysis procedures (Lakoff & Johnson, 1980), we grouped MLEs together based on theme and then identified a conceptual metaphor that served to describe each grouping. Table 1 shows examples of similar MLEs grouped together to create a conceptual metaphor.

The thematic grouping of faculty members' MLEs indicate that although each faculty member constructed MLEs based on their own experiences and backgrounds, other faculty members had similar conceptualizations of disciplinary writing, which were uncovered during the conceptual metaphor analysis process. As the table indicates, not only are there a variety of ways that faculty describe disciplinary writing through metaphorical language, there are also a variety of categories – conceptual metaphors – that represent overarching perspectives on disciplinary writing. Noting this variety is important as it speaks to the lack of a commonly understood working definition of what disciplinary writing is as expressed by these faculty members.

Table 1
Faculty MLEs Categorized as Conceptual Metaphors

Metaphorical Linguistic Expression	Conceptual Metaphor
• Disciplinary writing is like using a prism. • Disciplinary writing is like a bringing a lens into focus. • Disciplinary writing is like looking through a telescope.	DISCIPLINARY WRITING IS A LENS.
• Disciplinary writing is a snowflake. • Disciplinary writing is like a fingerprint. • Disciplinary writing is like a personality. • Disciplinary writing is like learning the difference between venomous and harmless reptiles.	DISCIPLINARY WRITING IS A UNIQUE IDENTIFIER.
• Disciplinary writing is like driving to your destination. • Disciplinary writing is like finding your way out of a maze. • Disciplinary writing is like a roadmap. • Disciplinary writing is like a room of invisible walls with many thin doors.	DISCIPLINARY WRITING IS NAVIGATION.
• Disciplinary writing is like sun breaking through the fog. • Disciplinary writing is like turning on a light. • Disciplinary writing is like shining a light. • Disciplinary writing is like a light bulb to go off in someone's head.	DISCIPLINARY WRITING IS ILLUMINATION.
• Disciplinary writing is like a language. • Disciplinary writing is like a secret language. • Disciplinary writing is like Pig Latin. • Disciplinary writing is like being fluent in a foreign language. • Disciplinary writing is like translating from one language to another	DISCIPLINARY WRITING IS LANGUAGE.

(Note that in metaphor analysis literature, it is common practice to use all capital letters to denote the conceptual metaphor, and the conceptual metaphor is usually phrased as "(target) is (source)".)

The variety of metaphorical language used is only part of the story, as it is important to consider the categories that emerged. The conceptual metaphor DISCIPLINARY WRITING IS LANGUAGE may seem an obvious aspect of writing within a content area as it certainly speaks to the particular vocabulary that each discipline uses. But it also speaks to the ways that a particular discipline uses language in constructing knowledge, how understandings are organized and presented in written form, and the general structure of writing within that discipline. Both DISCIPLINARY WRITING IS ILLUMINATION and DISCIPLINARY WRITING IS A LENS speak to what, in a particular content area, is considered relevant and worthy of attention, with the implicit understanding that what is relevant in one discipline may not be relevant in another. Both of those conceptual metaphors indicate that there is a relationship between what is considered knowledge in a field and the writing within that field, a relationship that is highly interdependent. The conceptual metaphor DISCIPLINARY WRITING IS NAVIGATION suggests that disciplinary writing points to how to understand a concept, an argument, or how information is presented, within that field; this navigation process may differ across disciplines. Finally, the conceptual metaphor DISCIPLINARY WRITING IS A UNIQUE IDENTIFIER signifies the distinctive nature of how each discipline is described, analyzed, and discussed: what is considered knowledge in that field and how that knowledge is constructed.

While the conceptual metaphors presented above indicate the uniqueness of discourse in a given discipline, it is important to understand that the viewpoint of uniqueness was not limited to faculty from a particular discipline. In each conceptual metaphor category there are at least two, and usually more than two, disciplines represented. For example, in the conceptual metaphor "DISCIPLINARY WRITING IS A UNIQUE IDENTIFIER" above, the four MLE examples are from faculty in the three disciplines of mathematics, history, and psychology. That is, faculty from each of these disciplines agreed that disciplinary writing involves unique aspects, even though there may be differences in how the writing in each of those disciplines is considered unique.

Discipline-focused Perspectives

In addition to a thematic categorization of MLEs, we also looked specifically at whether faculty MLEs indicated an understanding of writing as a disciplinary-specific process through a process of open coding. We examined each MLE and its explanation, and if disciplinary writing was described in a manner that could apply to any field, it was categorized as general. If the faculty member described disciplinary writing as a type of writing that differed across subjects and by unique characteristics, it was categorized as disciplinary.

In Table 2, we provide examples of MLEs that indicated an understanding of writing as a general process.

Table 2
Faculty MLEs Categorized as General Descriptors

- *Disciplinary writing is like building a brick wall.* Each sentence sets up the thought process until the whole idea is revealed.

- *Disciplinary writing is like building a house.* First, start with a plan (prewrite); lay the foundation (thesis statement) put up the support beams (topic sentences and paragraphs) adjust plans as necessary (revise) complete the structure (conclusion) review for possible problems (walk through) move in (publish).

- *Disciplinary writing is like addition and subtraction*. In writing you put words together to make meaning and in reading it is like subtraction in that you take sentences apart to gain meaning.

- *Disciplinary writing is like arranging items in alphabetical order*. Learning to order one's thoughts and put them into words makes sense of those thoughts

These MLEs suggest perspectives about disciplinary writing that are general – and, indeed, formulaic – enough that they could be applied across disciplines. They speak to a process of communicating ones' ideas additively until those ideas are expressed adequately and make no claims for specificity to select disciplines.

In contrast, the MLEs in Table 3 indicated an understanding of disciplinary writing as specific to a given discipline:

Table 3
Faculty MLEs Categorized as Disciplinary Descriptors

- *Disciplinary writing is like painting a picture.* Like artists paint a picture, so do different disciplines use different points of view in expression their information.

- *Disciplinary writing is colors of the rainbow*. Across the curriculum, writing has different distinct purposes.

- *Disciplinary writing is like a snowflake.* No two snowflakes are the same. That holds true for disciplinary writing. It differs from discipline to discipline.

- *Disciplinary writing is like a fruit basket.* You can't compare apple and oranges and you can't cross disciplines in writing conventions. Each discipline has its own style and "flavor" for citations and those conventions need to be learned

While both the general and discipline-specific MLEs are rich in providing insight into faculty members' conceptualizations about writing, the numbers bear mentioning: less than a third (27) of all MLEs involved writing as a discipline-specific process.

The MLEs with generic descriptions describe how to write and what writing can do in general terms, whereas the explanations of disciplinary writing as disciplinary acknowledge disciplinary writing as being unique to a field or different depending on the conventions of a field. In other words, many participants appear to approach disciplinary writing as less of a practice unique to specific disciplines and more of a general writing practice usable in all fields.

Discussion

The data collected provided a number of significant observations. Relevant to this study, the data suggests that community college faculty members have multiple beliefs, attitudes, and perceptions of disciplinary writing. In addition, the analysis of these data not only provides insight to faculty members' conceptualizations, but also hints at the nature of disciplinary writing within community colleges.

Faculty Descriptions of Disciplinary Writing

Their metaphors and explanations of those metaphors indicate that faculty members tend to conceptualize disciplinary writing more as a general, universally applicable practice rather than a social or disciplinary act unique to an individual subject. That most of these community college faculty members view disciplinary writing as a general skill suggests that they may not foreground their own disciplines' social or unique characteristics when it comes to writing. In terms of instruction, these perspectives lend themselves to view that the formal instruction of writing belongs within a composition course and not within the disciplines.

With faculty members presenting such diverse perspectives of disciplinary writing, it is not surprising that many students encounter what some describe as a mysterious tacit code that they must crack as they bounce from discipline to discipline (Husain & Waterfield, 2006). In a study on writing in economics, Richardson (2004) stated that many college instructors have not traditionally explored or articulated the literacy, language, and writing demands of their professed discipline; the unintended result is that they could be potentially creating student beliefs that proficient writing is unattainable.

Some scholars have studied the ways students have acknowledged the inability to "get writing right" (Chanock, 2000; Lea & Street, 1998; Stockton, 1995; Wineburg, 1991), noting that students may experience mixed messages based on feedback about their written work. For example, Lea and Street (1998) related the anecdote that one student whose work was acceptable in history was told that his writing was lacking in structure and in argument in anthropology. This example emphasizes the point that the writing approach used in both situations was not equally valued in each discipline. Similarly, Stockton (1995) illustrated the difficulties that a literature major, trained with similar interpretation skills as history majors, encountered when that student received good marks in literature but low scores in history. This particular study is another scenario where general training in interpretation did not result in favorable feedback in both

disciplines, suggesting that either the term *interpretation* has different meanings in each discipline or that interpretation demonstrated through writing has different structures or approaches in each discipline. Chanock (2000) found that students received different comments on their written essays in history than they did in English. In addition, Wineburg (1991) found in a comparison study that, when given the same text to analyze, teachers discussed political, social, and cultural constructions where the students only saw facts. Thus, while some faculty members may not explicitly articulate the nuances of writing as a function of knowledge in the discipline and task demands within their own discipline, that does not mean that these disciplinary writing practices are not being implicitly expected of students. Ultimately, these writing nuances and task demands are important and ought to be explicit, largely because disciplinary literacy scholars argue that the nature of knowledge in each discipline is demonstrated through the valued language, purposes, and habits of each community. And, ultimately, such knowledge construction and knowledge comprehension is demonstrated through writing.

Implications

The metaphor analysis methods used in this study revealed that faculty do have multiple beliefs, attitudes, and perceptions of disciplinary writing. These results indicate that due to the variety of conceptualizations faculty members have about disciplinary writing, instructors may find that deliberately making instruction and advice to students about writing in their discipline more explicit may facilitate students' writing development. Explicitness in this sense refers to discussions with students about how writing "works" within that specific discipline.

Richardson (2004) argued that teaching practices can leave impressions and cause students to make unintended inductions about disciplinary demands. Paxton (2007) warned that if practices are not made explicit, gaps between teacher expectations and student interpretations of certain tasks and activities may emerge. If disciplinary instructors do not include writing instruction as a part of their course, and if writing instructors are not familiar enough with specific disciplinary content to create writing strategies, how can students learn writing demands appropriate to each discipline?

The most salient implications for instruction from this research may be to challenge instructors in each discipline to support the development of communication and writing skills since students who may come to their courses with varying degrees of familiarity with, and commitment to, the discipline (North, 2005b). In addition, Forman (2008) suggested we might want to explore how writing instructors can consider teaching context specific strategies and skills instead of a basic skill set.

Several studies have provided examples of how faculty attempted to address these issues. For example, Forman (2008) suggested that basic writing instructors teach students topics such as rhetorical leadership; data-based persuasion; ethics, rhetoric, and audience communications; relationships among

communication channels; group work; and, finally, modern notions of genre. These strategies are skills more easily malleable across disciplines than a set of grammar rules, sentence structures, and basic expository rules.

Other studies have suggested that faculty should incorporate more writing in their courses to allow students to exercise their disciplinary writing skills more often (Bangert-Drowns, Hurley, & Wilkinson, 2004; Brzovic & Franklin, 2008). Shorter, parsimonious assignments would provide students with more frequent practice and feedback on their disciplinary skills and help encourage retention and understanding of subject matter. Furthermore, this would mimic a disciplinary dialogue in which students could start to work their way into the discipline-specific discourse of that community. Along those lines, DiPardo and Freedman (1988) argued that peer group work also serves to emphasize the importance of social interaction to disciplinary learning, providing more opportunities for students to negotiate and learn the nuances of language, knowledge, and writing practices as they work together through disciplinary material.

Supporting Disciplinary Writing with Explicit Instruction

If, as the findings from this study imply, faculty members tend not to differentiate disciplinary literacy practices from general writing practices, it may be difficult to explicitly instruct students on how to succeed within their specific disciplinary literacy practices. Shanahan and Shanahan (2008) suggested that students may find it difficult to transfer writing knowledge from general composition to discipline-specific courses because "most students need explicit teaching of sophisticated genres, specialized language conventions, disciplinary norms of precision and accuracy, and higher-level interpretive processes" (p. 4). Some scholars have implied that professors might not provide explicit teaching because they often learn to write in the disciplines through slow observation and apprenticeship and not through explicit instruction (Carter, 2007; Russell, 1991). Thus, professors may not be aware that the form of writing in their discipline is actually a specific practice to the discipline. As Macbeth (2010) explained, expert academics often do not realize that the social and discoursal practices within their discipline are unique and invisible to novices. In other words, if academics do not see the differences, they may not communicate these disciplinary writing differences to novices, which in turn can make those differences seem invisible to novice writers.

Sperling (1996) posited that writing researchers have yet to fully understand the role of writing in contributing to the generation of knowledge in different disciplinary contexts, and if writing is not yet understood as a method for disciplinary knowledge construction, it likely is not described or used as such. Nonetheless, Faigley and Hansen (1985) and Smagorinsky (2015) argued that students need help to understand the work required to make sense of the questioning and answering methods of their discipline and how they differ from other disciplines. Thus, North (2005b) offered that the most important thing a faculty member could do is to challenge him or herself to take the time to explicitly explain to students the demands, requirements, strategies, beliefs, and

functions of his or her discipline. Based on the findings of this study that faculty hold a variety of conceptualizations of disciplinary writing, we agree that it is important for faculty to consider whether their conceptualizations are supporting students' understandings of, and practices in, writing throughout the college experience.

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