

Metaphors in the Writing Process of Student Writers

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Abstract

Research shows that metaphors are a useful instructional tool in the science classroom, and additional research shows that student understanding of the writing process impacts the quality of the students' final products. This article investigates the potential value of applying metaphors to writing instruction. I asked experienced and inexperienced student writers to describe their metaphors for the writing process and compared their responses. I found that inexperienced writers had rigid metaphors focused on a perfect product, whereas experienced writers had fluid metaphors focused on developing through writing. This difference shows an opportunity for development within the student-generated metaphors, which educators can use to guide students to more developed concepts of academic writing.

We talk about arguments as if they are war and we talk about life and love as journeys. In fact, we cannot talk about any of our abstract ideas without talking in metaphorical terms. When I say metaphor, I don't exactly mean the literary metaphor we all learn in grade school. I am talking about the metaphors that are built into our consciousness and that provide a foundation for our understanding of the way the world works.¹ Try to describe hate without metaphors and you may get something like "hate is an emotion that we feel toward each other." However, that definition does not accurately describe hate because you could put *companionship* in place of *hate* and still be right. When you add metaphor, you can say, "Hate is a powerful emotion of dislike that can color our actions and thoughts black with their strength." The second definition uses the metaphors that feelings are weak/strong and that actions and thoughts have color. Emotions are abstract and must be explained in concrete terms, but these concrete terms are by nature metaphorical because the target knowledge is not concrete.

But what if the target knowledge is not abstract? Metaphors are used for explaining the extremes of the natural world as well. In science, we use metaphors to describe natural phenomena such as electrical currents and light refraction.² We use metaphorical activities in our classrooms like role play, model building, and cartoons to show how the world works. The use of these metaphors deepens student understanding and has been proven to be an effective tool to generate student engagement.³ More engaged students are then better able to explain the knowledge they have gained through their participation in metaphorical activity. The writing process is also very complex, so it naturally follows that metaphor can help us to understand it.

My research aims to show the potential of metaphor as an aid to writing instruction and learning. There are two theoretical contributions in my argument. The first applies metaphors, already used in teaching scientific concepts, to the teaching of writing. The second adds complexity to the aspect of cognitive writing theory, which studies the differences between skilled and unskilled writers. My research aims to support the use of metaphors for teaching while also focusing on skilled and unskilled student writers. My claim is that students vary in their abilities, and by encouraging them to create metaphors for their writing processes, we can help both students and teachers understand students' progress as writers.

The seeds of my study were planted in my senior seminar class discussion about some of the ways in which my classmates and I, as experienced writers, picture ourselves in relation to the writing process. Our discussion was prompted by an article written by Paul Prior and Jody Shipka that describes the ways in which the writing environment is social, complex, and layered. In their study, they asked writers to draw a picture of the environment in which they write. The drawings were detailed, and varied based on the understanding the respondents had of what writing entailed. Prior and Shipka conclude that the conceptual bases for writing are "interior worlds of sense and affect [that are] fundamental elements of writing."⁴ Our discussion of the article generated metaphors that describe our understanding of the writing process. I created what would become a highly detailed metaphor about how writing is like knitting. I also started to wonder what metaphors other, less experienced, students use when they describe the writing process.

In this article, I will describe the two theoretical contributions to my argument and then illustrate them with a sample of students with different levels of writing skill. The students' metaphors show clear differences in writing process concepts, which support my theoretical point. I aim to show the ways in which metaphors provide a starting point for writers in the writing process and how those metaphors can then be used in the classroom.

Theoretical Discussion

Metaphors in Science Education

The practical applications of metaphor in teaching have been seen primarily in the science classroom. Several studies outlined in *Metaphor and Analogy in Science Education* advocate using metaphors as an instructional tool for science education. The science educators/scholars of this anthology examined ways in which their own classrooms were affected by their use of metaphors and found them to be useful as long as the educators remain active through guided questions to their students. (It is important to note that, in this book, metaphor and analogy are sometimes used interchangeably.)

Aubusson and Fogwill describe the use of educator-guided role play, a metaphorical activity, to help students learn about chemical reactions. When the students created a role play of a chemical reaction and talked each other through the details of the

reaction, they were able to apply metaphorical thinking to the target knowledge. In this case, the role play activity required the students to create a group metaphor that demonstrated the chemical process needed to create a copper ion in an acidic solution that also produced bubbles. As the students worked through their metaphor, they encountered gaps in their knowledge, such as how to represent covalent vs. ionic bonds, and used problem solving to get the desired reaction. The role play helped the students, as a group, build the metaphor in which the classroom was a room of atoms and molecules, represented by students, books, and chairs. In addition to being productive, the role play provided a level of entertainment and engagement that may not have been possible in a typical lecture about ion formation.⁵ The success of the role play was measured through interviews and tests before and after the role plays, which showed improvement in student understanding about ion formation.

Harrison and Treagust feel that “if analogies are appropriate, they promote concept learning because they encourage students to build links between past familiar knowledge and experiences and new contexts and problems.”⁶ Harrison and Treagust advocate using an earlier model for lesson planning called the FAR guide, in which educators plan the analogy based on their own understanding of the concept and the common experience they feel students have. From there, discussion follows in which students ask questions and offer additional analogies, creating an opportunity for the educator to give feedback based on the students’ understanding. Harrison and Treagust also recognize the useful nature of student-generated analogies because, though student analogies are more difficult to create, they are easier for the students to explain and enable the educator to identify what areas of the target knowledge are missing.⁷

Metaphors in Writing Instruction

Meaningful learning happens as a result of creating an analogy/metaphor and then developing it based on student understanding. As I will argue again later on, student-generated metaphors for writing can help students improve their understanding of the writing process. In turn, their deeper understanding can lead to improved writing.

To date, the use of metaphors for writing instruction has not been explored in detail; however, writing educators are aware that metaphor can be a useful tool for their own pedagogy. For example, VanDeWeghe talks about how becoming aware of and building his own metaphor for his classroom has affected student engagement. He claims, “As we understand our teaching, metaphorically, so do we extend the metaphor in more complex and often compelling ways.”⁸ He writes that his classroom is a story in which the students are both the readers and the characters. As the instructor, VanDeWeghe is the narrator and the author, and the meaning that is created depends on the engagement of his students and the ways in which he presents material.

Using this metaphor, he resisted the urge to interfere with the writing process of one of his students, Dan, who started using images in his journaling process. Instead of telling Dan that journaling was written, not drawn, VanDeWeghe watched to see what would happen. He discovered that Dan was more productive in his writing, and that the images were vital to helping his writing become clearer as he demonstrated deeper understanding. VanDeWeghe used his metaphor of classroom-as-story to view Dan’s images as character development, not deviation from the assigned work. VanDeWeghe learned the importance that analogical processes can have in the classroom, not only to enable educators to explain their ideas but also to allow room for students to develop their own understanding. Though VanDeWeghe used metaphor as a pedagogical tool for himself, he did not call his students’ attention to their own work. In fact, the use of student-generated metaphors to teach writing has not yet been explored; however,

the impact of student understanding of specific writing concepts, such as structure and content analysis, has been examined by cognitive theorists.

Smith, Campbell, and Brooker investigated why some student work showed a complex thought process while other student writing was superficial. The researchers desired to “further theoretical analysis of students’ underlying conceptual understandings of the essay writing process” by recording and then interviewing students of varying skill levels.⁹ Students who wrote in what was described as a “unistructural” mode primarily focused on repeating facts that other scholars had reported. When asked about the criteria of organization, synthesis, and critical evaluation, students in this category withheld personal connections, opting to give textbook definitions instead. Smith, Campbell, and Brooker found that students who wrote “relational” essays included their personal opinions of synthesis and aimed to connect several ideas together in a nuanced manner. The relational writers felt that organization was structural, but that the information needed to flow together as well.¹⁰ The students they interviewed described critical evaluation as “analyzing it, looking at what’s good and what’s bad about it.”¹¹ Smith, Campbell, and Brooker, therefore, found that students’ understanding of specific writing activities directly affected the quality of the work they created.

Similarly, Mike Rose examined students’ understanding of the writing process in an effort to help students overcome writer’s block. He reviewed the blocking patterns of students who got stuck in their writing and the strategies of students who were able to work through their blocks. He found that students who were unable to get past their blocks were adhering to writing rules that hindered them. Ironically, he cites composition teachers and writing textbooks as two of the sources of the students’ problems.¹² For example, one student he worked with only had a general idea of what the paper would look like and indicated that, if her initial plan did not work, she would change it. In contrast, another student he worked with would only start writing after she had mapped out everything she wanted to say in incredibly complex diagrams. This need to outline in great detail left her with too much information to put into her short essay, and she would end up turning her work in late and unpolished. Rose was able to help students work past their blocks by showing them ways their concepts of writing were preventing them from writing.

Nancy Sommers built on the cognitive theorists above by comparing experienced (professional) and inexperienced (student) writers in different contexts. She analyzed the ways in which writers conceptualized revision, and found that inexperienced writers were more interested in the mechanics of their writing whereas experienced writers were concerned with the content of their writing. She used this difference to distinguish students’ from professional writers’ conceptualizations of revision. Though she makes a good point, she assumes that all students are equally inexperienced. Despite this assumption, Sommers’ model is useful because she draws our attention to the clear differences in the conceptual approaches toward revision in each skill level. We can use this same model when we look at different skill levels within the student writer group. The conceptual differences between inexperienced and experienced writers are reminiscent of the work Smith, Campbell, and Brooker did with unistructural and relational writers, as well as what Rose did with writer’s block. In my study, I will look at the differences in concepts of writing between experienced and inexperienced *student* writers.

My research into metaphor and its use in the classroom reveals an area of metaphor that can be applied to the teaching of the writing process. When used successfully, student concepts of writing, embodied as a metaphor, can be examined and compared as well as manipulated.

Study of Student Writers

In designing a study that would support my theoretical ideas regarding the use of student-generated metaphors as a tool for teaching writing, I decided to compare the metaphors of writers who are identified as basic writers and those who are writing tutors. Basic writers are typically students who are required to take a remedial writing course before they can take the first-year composition course. Writing tutors in this study are mostly English majors who identify themselves as good writers and were employed by the UW Oshkosh Writing Center during the semester of my study. The tutors enjoy the task of writing, have a desire to help others become better writers, and are sometimes asked for feedback outside of the Writing Center.

I started by creating a brief survey that asked the following: "Thinking about the writing process in general, what metaphor/analogy fits how you approach writing? Describe or draw all parts that make up your metaphor." I also provided a condensed version of my own metaphor in which I tried to account for different aspects of the writing process without influencing the responses: "Writing is like knitting. The yarn is the words, the pattern is my knowledge, the needles are my physical environment, and the product is my completed essay. If I make a mistake, I can choose to undo everything and start over, or I can rework the stitches (sentences, etc.) until I am back on track with my pattern. It takes practice and can be time consuming, but anyone can learn how to knit (write) well. For some people, knitting/writing is a hobby; other people can market their product for a profit."

Once I had the initial responses, I looked for general patterns. I found that inexperienced writers were concerned with the final product and the right and wrong way of writing. They wanted a perfect paper and felt that there was an ideal that they could get to if they only tried hard enough. For example, they wrote that writing was like a perfect game, the perfect outfit, or beating a video game. These ideas were not exactly wrong, but they were limited. They focused on a goal of perfection that has a clear beginning and end. On the other hand, the writing tutors gave metaphors that were much more fluid and allowed for a variety of tasks and goals in their writing. They wrote that writing was like running errands, growing a tree, or cleaning. None of these tasks, especially the cleaning, is ever done. While there is always room for adding details, the tutors were more process-oriented. To help you see what I was seeing, I will provide some examples from each group.

Inexperienced Writers

Brian, one of the basic writers, wrote that writing is like a maze.¹³ There are clear boundaries, and the goal is to navigate without deviating from the correct path. He is confined by the rules, and he wants to get to the end of his writing quickly. He said, "You are trying to get to the end of the maze by taking the right path right away" and "there are certain paths you can take that will help lead to the end the fastest." Brian gave little attention to the value that a wrong turn in a maze can have. The metaphor is good in that there is a learning process that occurs in it, but there is room to develop it in terms of genre study, scope, and complexity of the writing. Brian may need to be careful that the urge to reach the end as fast as possible does not interfere with developing ideas. A tutor or a teacher could suggest that a more complex maze would make a better metaphor here, where the path of writing changes based on what happens and where there may be more than one way out. This would effectively open the metaphor to possibilities that a traditional maze does not offer without removing the idea of the maze.

Experienced Writers

Charlotte, one of the writing tutors, wrote that writing is a dance. Her metaphor indicates her awareness of genre and the historical value of writing: “There are many different styles of dance . . . [and they] have evolved over a period of time.” Each person dances a bit differently, but can choose to follow a particular style. Since everyone writes a little bit differently, it is more important to learn the steps and then apply your own flourish. The words are the bodily expression of writing, and she recognizes that they may not be perfect and may present challenges. She identified the social aspect of writing in dance partners and others who have influenced her dancing (instructors, peers, etc.). She also provided some specific examples of dances: “A Tango may be a passionate love letter” and “a Rhumba may be a persuasive essay.” Her metaphor indicated the need for structure and topical knowledge, but she also felt that individual voice is important to writing. Charlotte’s discussion of instructors and partners in her metaphor shows that she is conscious of the role audience can play. This awareness of audience does not show up in the samples from the basic writers.

Matching Metaphors

Some students from each writing group chose to use the same metaphor. These pairs of students had the same ideas about writing but differed in how they mapped their ideas. Their differences illustrate the underlying conceptual ideas each group has toward writing. This is where my theoretical point stands out the most, because these pairs of matching metaphors are the same on the surface but follow the same pattern as the metaphors I evaluated above.

Ashley, a writing tutor, and Catherine, a basic writer, both wrote that writing is like a tree. Ashley’s metaphor was about the process of planting and nurturing a tree. She starts with a seed and then makes sure that she is caring for it, giving it the things it needs to grow into a healthy tree. Her emphasis on the process of growing fits the tendency of the writing tutors to focus on the process of writing, not the product. She writes, “You should be proud of your plant and not forget about it . . . it will die if you do not continually return to it.”

Catherine’s metaphor, on the other hand, was about a fully grown tree with established roots. She outlined the physical parts of the paper—intro, body, and supporting points—in terms of the physical aspects of the tree. She writes, “The roots is [sic] the structure of the main topics . . . the main body is where you write out the main ideas. . . . The branches and twigs are the evidence and information to support the body.” Her description of her metaphor is focused on the basic structural parts, and does not acknowledge that the ideas in the writing are vital to the development of the paper.

Similarly, Logan, a tutor, and Alexa, a basic writer, both felt that writing is like painting, and the general pattern of process vs. product continues here as well. Logan begins with an idea, and lets the process work toward creating a whole that “flows well.” He also is aware that different goals require different methods. He explains, “Writing an essay is different from writing a poem . . . in the same way that painting is not the same as drawing.” Though he does not go into detail about how exactly they are different, it is clear that his goal in writing is creating a whole, though it does not have to be a perfect whole. His words indicate significant revision “in hopes of creating a cohesive whole.” At no point does he indicate that the goal is a perfect and complete final product.

On the other hand, Alexa wants a beautiful masterpiece. She wants to have a final product that is perfect all the way down to the details. Like Catherine, Alexa is also looking at the physical parts of the paper. She mentions examples, details, and the

words themselves, while taking herself out of the creation. She writes, “To paint, you let the brush do the work, like letting your fingers type,” and leaves the knowledge and ideas to her sources.

Multiple Metaphors

My study also revealed that student writers used multiple metaphors. Only the tutors shared multiple metaphors, and this shows an additional level of thought process that the basic writers did not have in their responses. In his article “Metaphors We Write By,” Stephen Ritchie describes the value of having multiple metaphors for writing. He asserts, “The generation and application of alternative writing metaphors might guide researchers to take up new challenges in writing.”¹⁴ When he created and used more than one metaphor, the quality of his collaborative writing improved based on the metaphor he used and the project’s goal. He found it easier to collaborate with other writers because he had a clear idea of his role, resulting in more concise writing.

It is possible that Kara, one of the tutors, was doing something similar, and that the multiple metaphors she shared with me are a reflection of how she writes differently in various situations. She wrote about how writing is social and described writing as natural disasters in which people and ideas come together to rebuild in the aftermath. She also wrote that writing is a science experiment, in which some ideas float on the top of the water while others sink through a filter to settle at the bottom of the bottle. Her third metaphor was that writing is headgear in the sense that the ideas need to be pushed around before they can be straightened into a final product. Each metaphor is well suited to different goals in writing.

Harold also shared more than one metaphor for his response. He did not describe each one, but both metaphors show that he equated writing to discovery. The first, a puzzle, is crossed off with no additional detail, but it is not hard to see how a puzzle would fit the writing process. The one he describes in more detail confirms his focus on discovering through writing. He decided that writing is like a fossil because it starts with an interesting idea that he can then explore by digging around his ideas.

Metaphors in Action

After the basic writers created their metaphors, the writing tutors were able to use them in their tutoring sessions with the basic writers. One of the writing tutors, Clark, wrote that the metaphors “open[ed] a new line of communication with the writer.” When his writers created the metaphors, not only could he use them as icebreakers, but he could then refer to the metaphors as he worked with his students. He identified ways in which the students were doing something they had described, and he also found ways in which his own metaphor about making banana bread helped build his students’ understanding.

A few weeks after their initial responses, the inexperienced writers were given a brief self-reflective writing assignment (approximately one paragraph) in which they reevaluated their metaphors and described the impact their metaphors had on their writing. While some students were not yet ready to identify a change in their metaphors, a few writers did show a deeper understanding. One changed her metaphor from an onion to an eyeball. Her metaphor is still the same shape and idea, but it is much more complex. This change indicates that she was self-aware enough to know that her initial idea needed to be more intricate.

Another basic writer did not change her metaphor, but her words showed a more developed idea of writing. When Alexa, the basic writer mentioned above with the painting metaphor, revisited her metaphor, she indicated that she did not feel that her metaphor had changed. However, she also started to get at the same idea as Logan,

the writing tutor mentioned above, and focused on a general goal rather than a perfect product. She revealed, "Focusing on the goal, question, idea will get the job done." Even though she is still looking for a final product, she no longer stresses perfection. This difference reveals that though she may not be aware of the small changes her metaphor underwent during the semester, there was a shift in understanding.

Conclusions

The use of metaphor in the classroom and in tutoring sessions works well with teaching that is tailored to the student. Teachers have the experience and understanding that students are only beginning to develop. As in the science classroom, the awareness of metaphors in writing can provide a better level of understanding for students and educators alike, and it is our responsibility, as educators, to help our students build their understanding. Being aware of a student's metaphor can influence the strategies we use to teach them to become better writers.

In "Analogies and Conceptual Change," Dagher advocates the study of the conceptual change that analogy can provide for students. He adds, "The contribution of instructional analogies to conceptual change may be tacit, leading to small but substantive shifts in students' understanding of concepts."¹⁵ This would fit with what I found in the metaphors given by the inexperienced writers and showed in the examples above, with the onion changing to an eyeball and the potential for the maze to become more elaborate. The goal in working with the students to develop their metaphors would not be to get the students to scrap their ideas but to provide a small change that could lead to more developed academic writing.

The act of writing in metaphorical terms allows students to develop more complex meanings, and can help support their move into more developed academic discourse. My work has already been used by the Writing Center tutors and basic writing students at UW Oshkosh. Further use of my work should aim to chart the change in understanding the writing process, as Dagher proposes.

The longer I thought about my metaphor, the more detail I was able to give it. Longitudinal and comparative studies could explore any differences in the quality of student writing through interviewing the students and evaluating their writing samples. I would strongly recommend that future work be carried out as ongoing research and not as a single-semester research study to allow the researcher time to track the growth in more detail and with a larger sample. A comparative study, meanwhile, could use different sections of the same class to track the impact the students' metaphors have on their writing by evaluating the end of semester writing provided by each section.

Additionally, following Rose's methodology, conducting interviews could provide an opportunity for teaching students to reconceptualize their writing. Lackoff and Johnson claim that metaphor "becomes a deeper reality when we act in terms of it."¹⁶ If we can foster student awareness of writing, we can help students develop their views of writing. By helping students see what is limited in their initial metaphors and then helping them see the ways in which their metaphors can become more adaptable to the varied tasks in writing, we would be able to help students move from a maze with only one way out to a maze in which the walls can move and may contain ideas never seen before. What would be important would be recognizing that there is no "right way" to write a "perfect paper."

Notes

1. George Lackoff and Mark Johnson, *Metaphors We Live By* (Chicago: University of Chicago Press, 1980), 4–6.
2. Allan Harrison, “The Affective Dimension of Analogy: Student Interest Is More than Just Interesting!” in *Metaphor and Analogy in Science Education*, ed. Peter J. Aubusson, Allan Harrison, and Stephen M. Ritchie (Dordrecht, Netherlands: Springer, 2006), 52–63.
3. *Ibid.*, 59.
4. Paul Prior and Jody Shipka, “Chronotopic Lamination: Tracing the Contours of Literate Activity,” in *Writing Selves/Writing Societies: Research from Activity Perspectives*, ed. Charles Bazerman and David Russel (Fort Collins, CO: WAC Clearinghouse, 2003), 180, http://wac.colostate.edu/books/selves_societies.
5. Allan Harrison and Stephen Fogwill, “Role Play as Analogical Modelling in Science,” in *Metaphor and Analogy in Science Education*, ed. Peter J. Aubusson, Allan Harrison, and Stephen M. Ritchie (Dordrecht, Netherlands: Springer, 2006), 93.
6. Allan Harrison and David Treagust, “Teaching and Learning with Analogies: Friend or Foe?” in *Metaphor and Analogy in Science Education*, ed. Peter J. Aubusson, Allan Harrison, and Stephen M. Ritchie (Dordrecht, Netherlands: Springer, 2006), 11.
7. *Ibid.*, 14.
8. Rick VanDeWeghe, “Teaching Writing as a Story,” *Journal of Teaching Writing* 20, no. 1 & 2 (2002): 103, <http://journals.iupui.edu/index.php/teachingwriting/article/view/1282/1235>.
9. David Smith, Jennifer C. Campbell, and Ross Brooker, “The Impact of Students’ Approaches to Essay Writing on the Quality of Their Essays,” *Assessment & Evaluation in Higher Education* 24, no. 3 (1999): 327, Professional Development Collection, EBSCOhost, doi:10.1080/0260293990240306.
10. *Ibid.*, 331.
11. *Ibid.*, 332.
12. Mike Rose, “Rigid Rules, Inflexible Plans, and the Stifling of Language: A Cognitivist Analysis of Writer’s Block,” *College Composition and Communication* 31, no. 4 (1980): 389, JSTOR, <http://www.jstor.org/stable/356589>.
13. All student names are pseudonyms.
14. Stephen Ritchie, “Metaphors We Write By,” in *Metaphor and Analogy in Science Education*, ed. Peter J. Aubusson, Allan Harrison, and Stephen M. Ritchie (Dordrecht, Netherlands: Springer, 2006), 177.
15. Zoubeida R. Dagher, “Does the Use of Analogies Contribute to Conceptual Change?” *Science Education* 78, no. 6 (1994): 601, Wiley Online Library, 2013 Full Collection, doi:10.1002/sce.3730780605.
16. Lackoff and Johnson, *Metaphors We Live By*, 145.

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