"SEEING" SECOND LANGUAGE PRE-SERVICE TEACHER LEARNING THROUGH THE CONCEPTUAL METAPHORS OF TEACHING AND LEARNING IN TEACHING PRACTICUM DIALOGIC BLOGS

Ekaterina Arshavskaya

Introduction

> Stuck in nowhere. This past week has been rough. Teaching wasn't exactly the way I planned it to be. (Pre-service teacher's post in the teaching practicum blog)

> Sometimes it just takes a little "stepping back" … and then to move forward with what you know is best for your students and for you. (Supervisor's reply)

This conversation between a pre-service teacher and her supervisor took place in the context of a dialogic blog required as part of a teaching practicum in the Master of Arts program for Teachers of English to Speakers of Other Languages (MA TESOL) at a U.S. university. The quote from early in her practicum experience shows that the pre-service teacher, Edie, experienced certain difficulties fulfilling the practicum requirement of teaching English as a Second Language (ESL) classes. Edie describes her teaching experience in terms of "being stuck" and of travelling along a "rough" road. In her response, Melanie (the supervisor) pushes Edie to adopt a more reflective approach to teaching (Zeichner & Liston, 1996)—she advises her to "step back", i.e., she suggests that Edie should take time to reflect on her teaching experience in order to find a way to move forward.

Both Edie and Melanie rely on metaphorical language in this and other exchanges in the teaching practicum blog, which can be understood through the lens of conceptual metaphor theory (Lakoff & Johnson, 1980). According to this theory, much of everyday language is metaphorically structured (Gibbs, 1994). Moreover, metaphors are not merely "linguistic distortions of literal meaning but constitute basic schemes by which people conceptualize their experience and the external world" (Gibbs,1994: 1). Conceptual metaphor theory holds that people use relatively concrete and physical concepts to talk about relatively abstract concepts. Thus, in the example above, Edie conceptualizes the relatively abstract concept of teaching in terms of the relatively physical concept of traveling (i.e., the expressions "being stuck" and "rough" are linguistic instantiations of this broader conceptual metaphor). In addition, conceptual metaphor theory suggests that metaphors determine not only the ways we think about certain phenomena, but also our behaviors.

In relation to research on teacher learning, this theoretical premise suggests that the conceptual metaphors according to which the thinking of pre-service second language (L2) teachers is structured has an impact on their teaching practices. Likewise, according to the theory, the conceptual metaphors that a teacher educator (e.g., a supervisor) uses also influence pre-service teachers' thinking about teaching and their actions in the classroom.

In the context of L2 teacher education, researchers have considered the metaphors that both pre- and in-service L2 teachers use to describe their teaching practices (e.g., Block, 1992; Cortazzi & Jin, 1999; de Guerrero & Villamil, 2000; Kiliańska-Przybyło, 2010). However, to the best of my knowledge, researchers have yet to focus on the metaphorical conceptions of teaching and learning that emerge in teachers' discourse more spontaneously, i.e., without the researcher's request to produce a metaphor to describe teaching. The purpose of the present study is to address this gap in the literature. Specifically, this study presents an inquiry into the metaphors teachers use on a habitual basis without prompts from a researcher. As such, the study sheds new light on teachers' conceptions of teaching given that according to the conceptual metaphor theory metaphors represent the primary mechanism of human thinking. In addition, no research has been carried out in regard to the metaphors that emerge in the discourse of L2 teacher educators. In fact, the present study offers a consideration of how the supervisor uses metaphors in an effort to promote the learning of the two pre-service teachers. The following research questions are central to the present study:

1. What conceptual teaching metaphors do the participants use in the dialogic teaching practicum blogs?

2. Are there any changes in the pre-service teachers' metaphorical conceptualizations of teaching over the course of the internship experience that relate to the supervisor's feedback?

Literature review

The Role of Metaphor in Human Cognition

Recent research in cognitive linguistics questions traditional assumptions related to metaphor and proposes that human cognition is fundamentally metaphorical in nature (Lakoff & Johnson, 1980). A traditional perspective on metaphor, which originated in the work of Plato and Aristotle, suggests that human "thought and language are inherently literal" (Gibbs, 1994: 1) and that the ability to speak metaphorically represents "a special human trait, requiring different cognitive and linguistic skills than those employed in ordinary life" (Gibbs,1994: 1). Contrary to this view, conceptual metaphor theory suggests that metaphor is not merely a matter of poetic or literary language. Rather, Lakoff and Johnson (1980) propose that metaphors constitute basic mechanisms of human cognition.

Conceptual metaphor involves an abstract conceptual domain as a target and a concrete or physical conceptual domain as a source. For example, English speakers think of abstract states, such as love, trouble, euphoria, and depression in terms of physical containers. To illustrate this point, Lakoff and Johnson (1980) provided the following examples:

1. He is *in* love.
2. We are *out of* trouble now.
3. He *entered* a state of euphoria.
4. He *fell into* a depression. (32)

In regard to these examples, Lakoff and Johnson (1980: 29) explain that as English speakers think of themselves as "physical beings, bounded and set off from the rest of the world by the surface of … skins" and due to their experience with bounded spaces (e.g., roomsand buildings) people often project bounded space and an in–out orientation onto abstract concepts. Thus, in the first two examples, the preposition *in* and the prepositional phrase *out of* suggest, respectively, that the abstract concepts *love* and *trouble* are conceptualized as containers that have an inside

and an outside. In the third and fourth examples, the verb *entered* and the verbal phrase *fell into* indicate, respectively, that the states of euphoria and depression are conceptualized as physical containers capable of holding something or somebody else, such as a human being.

Previous Research on Teachers' Metaphors

Teachers' personal metaphors have been a subject of research in both general and L2 teacher education for a number of years. In the context of general teacher education, Connelly and Clandinin (1988: 71) pointed to the importance of exploring teachers' metaphors in the following passage:

> "We understand teachers' actions and practices as embodied expressions of their metaphors of teaching and living. It makes a great deal of difference to our practices, for example, if we think of teaching as gardening, coaching, or cooking."

In what follows, Connelly and Clandinin (1988: 71) advise teachers to examine their "practices, interview material, stories and journal to capture … metaphorical concepts of teaching." That is because teachers' awareness of their metaphorical conceptions of teaching can serve as a tool to stimulate their reflections on teaching. For example, following Connelly and Clandinin's (1988) call, in Bullough and Stokes' (1994) study pre-service teachers were asked to create metaphors at the beginning, in the middle, and at the end of their teaching practicums. The study showed that pre-service teachers' metaphorical teaching conceptions shifted from idealized notions about teaching (e.g., THE TEACHER IS A BRIDGE BUILDER) to ideas that reflect a more authoritarian teaching style (e.g., THE TEACHER IS A SUPERVISOR).

In addition, in the context of general teacher education, supervisors were shown as using metaphors to provide emotional support to beginning teachers. For example, Goldstein (2005) suggested that pre-service teachers conceptualize their teaching practicums in terms of a HERO'S JOURNEY, which towards the end of the practicum was found to have a positive impact on pre-service teachers' feelings about both their experiences during the teaching practicum and their job searches. In addition, of particular importance here is a line of research that shows that teachers who adopted metaphors they had not used previously evinced changes in their classroom behavior (Tobin, 1990; Tobinet al., 1990; Tobin & LaMaster, 1995). Based on these findings, Roth and Tobin (2002) took the position that

metaphors can serve as an effective tool in a teacher educator's toolkit.

In the context of research on L2 teacher cognition, the central contribution of research to date has been to generate lists of metaphors produced by teachers to describe teaching (e.g., Block, 1992; Cortazzi & Jin, 1999; de Guerrero & Villamil, 2000; Kiliańska-Przybyło, 2010). For example, de Guerrero and Villamil (2000) reported on the following metaphors that ESL in-service teachers created to describe their role in the classroom:

1. *An ESL teacher is like a trail guide.*
2. *An ESL teacher is like an explorer.*
3. *An ESL teacher is like a potter.*
4. *An ESL teacher is like a mechanic of the mind.*
   (p. 344)

De Guerrero and Villamil (2000) also show how the metaphors that teachers create relate to theories of language learning. For instance, de Guerrero and Villamil (2000) connect the metaphor *An ESL teacher is like a mechanic of the mind* to the notion of an L2 learner as a defective communicator and to other negative conceptualizations of L2 learners found in the L2 acquisition literature (Firth & Wagner, 1997).

Overall, despite the research on teachers' personal metaphors in the context of both general and L2 teacher education, we still know very little about the metaphorical conceptions of L2 teaching and learning that teachers use in spontaneous discourse. And, likewise, we have much to learn about the ways in which a supervisor's metaphors can impact pre-service teachers' learning in the context of a teaching practicum blog.

The Study

Data collection
The data for the study comes from the online dialogic blogs of a supervisor and two pre-service teachers taking an internship as part of an MA TESOL program at a large northeastern U.S. university. The blog entries from both the supervisor and the two pre-service teachers were collected over the period of one semester (January 2008 to May 2008).

Methodology
The data was coded according to the following procedures. First, in order to identify the pre-service teachers' and the supervisor's metaphorical teaching conceptions, the researcher identified the linguistic instantiations of the broader conceptual metaphors in the pre-service teachers–supervisor entries according to metaphor identification procedures outlined by Pragglejaz Group (2007). These procedures suggest that researchers identify metaphorically used words by investigating whether the meaning of a lexical item in a given context differs from the basic meaning of this lexical item.

The basic meaning of a lexical item is defined as a meaning reflecting usage that is historically older, and more precise and concrete than other meanings and perhaps related to bodily action; however, the basic meaning is not necessarily associated with the way a lexical item is most frequently used (Pragglejaz Group, 2007). If the meaning of a lexical item in a given context differs from its basic meaning such that usage in this context can be understood in comparison with the basic meaning, then it is metaphorical. In accordance with the recommendations of the Pragglejaz Group (2007), the following resources were used in the present study to identify metaphorically used words and expressions: the corpus-based *Longman Dictionary of Contemporary English* (LDCE; Summers, 2003) and *The Shorter English Oxford Dictionary on Historical Principles* (SOEDHP; Little et al., 1973).

In terms of the process used herein to identify linguistic metaphors, it would be helpful to explore an example from one of the blogs. In the following sentence from a pre-service teacher's (Edie's) blog, the words in bold were identified as metaphorical: "I have started to notice that I shouldn't **jump** too **fast**, but wait to help the students to **walk** before I start to ask them [to]**run"** (Edie's blog entry, 2/13/2008). The basic meanings of the verbs "jump", "walk", and "run" have to do with a person's physical movement in space (LDCE; SOEDHP). However, in this sentence, Edie is talking, instead, about the pace according to which she is teaching an ESL class ("I shouldn't **jump** too **fast**"), her students' learning of English with her assistance ("help the students to **walk**") and the desired outcome of student learning of English ("before I start to ask them [to]**run**"). These meanings are more abstract than the basic meanings and can be understood in comparison with the basic meanings of the verbs "jump", "walk", and "run". Therefore, it can be concluded that in the sentence above the words in bold are used metaphorically.

In addition, grounded in the premises of conceptual metaphor theory, this paper is based on the assumption that linguistic metaphors appear in human interaction "because there are

metaphors in a person's conceptual system" (Lakoff & Johnson, 1980: 6). In other words, it is assumed that people's thought processes are largely metaphorical and that we rely on relatively concrete or physical concepts in order to understand relatively abstract concepts. In accord with the recommendations outlined in Schmitt (2005, 2007), metaphors with the same target (an abstract concept) and source (a concrete concept through which the abstract concept is understood) domains were grouped to form conceptual metaphors. The study also reports on the mappings (i.e., the basic correspondences between the sources and the targets) and, in some cases, offers a discussion of the entailments (i.e., additional mappings that are not explicitly stated, but can be inferred) of certain conceptual metaphors in the supervisor's and the pre-service teachers' discourse.

Instructional context

The MA TESOL internship lasted 15 weeks (one academic semester) and required pre-service teachers to complete several assignments through their personal blogs, e.g., reflections on the classes they observed and/or taught. The pre-service teachers also discussed their teaching with the supervisor and the instructor of the class they regularly observed, who served as a mentor teacher. The supervisor observed each of the pre-service teachers teach two classes at the end of the teaching practicum and provided feedback to them through their respective blogs.

During the period of the study, Edie was teaching two courses (ESL Reading and ESL Speaking) to international students in the intensive English program at the university in which she was enrolled as an MA student. Because she had already taught an ESL course in this program, Edie was not assigned a mentor teacher. The other pre-service teacher, Kristina, observed her mentor teacher teach and taught several classes in the ESL course she observed—an ESL course offered to international teaching assistants (ITAs). The aim of this course was to help international students improve their use of English as a professional discourse and to prepare them on this basis to become ITAs. As part of the internship, Kristina also observed other L2 teachers at the university.

Participants

The supervisor (Melanie) was a professor at the university and had extensive experience in terms of ESL teaching and supervising MA TESOL pre-service teachers.

At the time of the data collection for this study, the two pre-service teachers were enrolled in an MA TESOL program at a large northeastern U.S.university. One of the pre-service teachers, Edie, was a teacher of English whose first language is Mandarin. As a child, Edie had attended international schools where she learned English via immersion. Before taking the internship, Edie had some experience teaching English as a Foreign language (EFL) at an elementary school and she had taught ESL to international students for one academic semester. The other pre-service teacher, Kristina, was a native English speaker. She was also a heritage speaker of Korean. Before taking the internship, Kristina had taught at an elementary school. In addition, she had some experience tutoring and teaching business English at the college level.

Results

The first research question was formulated as follows: "What conceptual teaching metaphors do the participants use in the dialogic teaching practicum blogs?" The analysis of the interactions expressed through the dialogic blogs revealed the following conceptual teaching metaphors: L2 TEACHING IS A JOURNEY, L2 TEACHING IS CO-CONSTRUCTION, L2 TEACHING ISNURTURING, and L2 LEARNING IS A STRUGGLE.

The metaphorical conception L2 TEACHING IS A JOURNEY was found in the blog entries of both the pre-service teachers and the supervisor. Table 1 presents conceptual mappings of this metaphor as they appeared in the participants' blog entries.

Table 1. L2 TEACHING IS A JOURNEY.

L2 TEACHING IS A JOURNEY	
Source	Target
Travelers	Teacher and students
Traveling	Learning/teaching process
Jumping at a fast pace	Teacher's progression through a class
Moving slowly and learning to walk with the teacher's help	Students' progression through a class
Running	Outcome of student learning of English
A road/world	A class/course
A rough road	A bad teaching experience
Lost on the road	Lost in teaching
Travel destinations	Course objectives and goals in a teaching career
A point/location on the journey	An event in a teaching experience

The metaphorical conception L2 TEACHING IS CO-CONSTRUCTION was found in the blog

entries of one of the pre-service teachers (Kristina) and the supervisor (Melanie). Table 2 presents the conceptual mappings of this metaphor as they appeared in the participants' blog entries.

Table 2. L2 TEACHING IS CO-CONSTRUCTION.

L2 TEACHING IS CO-CONSTRUCTION	
Source	**Target**
Foundation	Students' current language abilities
Building/Co-construction	Teaching/learning process
Builders	Teacher and students
Back-up/Support	Argumentation in students' responses
Flexibility	Teacher's ability to change lesson plan depending on class dynamics
Structure	Lesson's organization
Other components in the building process	Questions a teacher asks during a class

The metaphorical conception L2 TEACHING IS NURTURING was found in the blog entries of one of the pre-service teachers (Edie). Table 3 presents conceptual mappings of this metaphor as they appeared in the participant's blog entries.

Table 3. L2 TEACHING IS NURTURING.

L2 TEACHING IS NURTURING	
Source	**Target**
Children	Students
Love	Teacher's feeling toward the students
Emotional closeness	Teacher–student relationship

The metaphorical conception L2 LEARNING IS A STRUGGLE was also found in the blog entries of only one of the pre-service teachers (Edie). Table 4 presents conceptual mappings of this metaphor as they appeared in the participant's blog entries.

Table 4. L2 LEARNING IS A STRUGGLE.

L2 LEARNING IS A STRUGGLE	
Source	**Target**
Physical powers	Students' ability in English
Weak (physical power)	Students' weaknesses in English
Strong (physical power)	Students' strengths in English
Struggle	Students' progress in English
Adversary	English
Pain	Effect of learning of English on the students

The second research question was formulated as follows: "Are there any changes in the pre-service teachers' metaphorical conceptualizations of teaching over the course of the internship experience that relate to the supervisor's feedback?" According to the data analysis, in attempting to help the pre-service teachers think about L2 teaching and learning, Melanie introduced them to new metaphors, confirmed some of their existing metaphors, and used metaphors to explain technical terms (e.g., "instructional paraphrasing") related to the areas of L2 learning and teaching.

First, whereas at the beginning of the semester, Edie had conceptualized L2 teaching as helping the students learn to walk, by the end of the semester she reported standing back and watching them without intervening: "Sometimes I really enjoy **standing back** and watch[ing] them do the job" (Edie's blog entry, 3/7/2008).This change in Edie's conceptualization of student learning couldbe attributable to progress the students may have made in terms of speaking English (i.e. they may no longer need help to walk, but can move by themselves). In her response, Melanie affirms Edie's metaphor by saying that "Sometimes by creating the right conditions for engagement and then just **stepping back** and **letting** them [the students] **go**, can really turn things around…"(Melanie's blog entry, 3/8/2008).The metaphor of "stepping back and letting them [the students] go" implies that the students can make progress by themselves, and in this way Melanie promotes a conceptualization of student learning that is new to Edie.

Secondly, Melanie uses conceptual metaphors to explain technical terms to Edie. For example, when talking about Edie's ability to use instructional paraphrasing, Melanie says, "This is an excellent instructional strategy as it shows them [the students] that you are trying to **build bridgesbetweenwhat** they know and **what** you are trying to teach them" (Melanie's blog entry, 4/10/2008). Here, the teacher's knowledge and the students' knowledge are conceptualized as two separate lands between which a teacher builds bridges. It is especially important to note that Melanie uses the metaphor ("to build bridges") after naming one of Edie's teaching practices through expert discourse; i.e., she notes that Edie engages in instructional paraphrasing. In this way, the supervisor makes her explanation of the technical term ("instructional paraphrasing") explicit to the pre-service teacher (Cameron, 2008). In Cameron's (2008) view, teachers often reinforce, or support, their explanations of particularly difficult technical terms through the use of metaphors, which is the case here, too.

Third, Melanie conceptualizes the teacher's journey as bi-directional: "Sometimes it just takes

a little **'stepping back'**…and then to **move forward** with what you know is best for your students and for you"(Melanie's blog entry, 2/27/2008). Here, the phrase "it just takes a little **stepping back**" refers to the teacher's ability to reflect on her teaching, whereas "moving forward" implies the teacher's ability to continue with teaching in more effective ways. It is particularly important to emphasize that Melanie uses these metaphors in response to Edie's entry whereas Edie describes her experience of teaching after "being depressed for a little while" and after talking to the supervisor, who gave her many suggestions on how to "start over." It is evident that through the use of these metaphors, the supervisor prompts Edie to develop a more reflective approach to teaching (Zeichner & Liston, 1996).

In her interactions with Kristina, Melanie likewise affirms the pre-service teacher's metaphors and extends them. For example, in response to one of Kristina's entries in which she talks about the need to slow down while travelling (i.e.,teaching): "Even while I was teaching on Wednesday, and I wasn't able to start on the activity as I had first intended, I kept telling myself **to slow down**"(Kristina's blog entry, 4/20/2008). Melanie affirms Kristina's idea about the need to slow down in order to adjust to the pace at which the students are learning. However, Melanie uses a slightly different metaphor: "… when they were in the midst of the lesson and you had to **shift gears** to address their particular needs or when you saw them **skipping ahead**, you had to adjust again … Yes, that's real teaching" (Melanie's blog entry, 2/20/2008). According to this metaphor, a teacher travels by car, whereas students travel on foot and at a fast pace. By approving Kristina's idea about the necessity of adjusting to the students' pace of travelling and providing a slightly different metaphor, which, however, expresses the same idea, the supervisor supports and fosters Kristina's learning-to-teach.

Another example in which Melanie affirms Kristina's ideas through metaphor can be found in the following exchange from the blog. Kristina conceptualizes her teaching as a journey in which she was less successful at previous stages than she is at present: "I … **reverted back to** my old **ways**" (Kristina's blog entry, 3/28/2008) and "It's funny how easy it is to change **back to** old habits when you don't continue practicing" (Kristina's blog entry,3/28/2008). In response, Melanie affirms Kristina's idea and then even extends Kristina's metaphor by adding that recognition of moving backwards is the first step toward moving

forward (i.e.,to teach in more effective ways): "… And you are right, when new teachers get nervous or flustered they tend to **revert back to** the **way** they were taught or habits of the mind that linger in them, but recognizing this is **the firststep in moving forward**" (Melanie's blog entry, 3/29/2008). Here, the ability to reflect on one's teaching is conceptualized in terms of realizing when one is moving backward, after which it is possible to move forward, i.e. to continue with teaching in more effective ways. It is also important to note that Melanie uses these metaphors in her comments on Kristina's first observation. In this way, the supervisor prompts Kristina to develop a more reflective approach to teaching (Zeichner & Liston, 1996).

Finally, the supervisor conceptualizes the role of the teacher as that of a guide who provides students with necessary directions on the journey: "Give **clear,** concrete, specific **directions**" (Melanie's blog entry, 3/29/2008).And importantly, Kristina underscores the importance of providing the students with clear directions in her final reflections in the blog: "A lot of the time, she [an ESL teacher Kristina observed] was **going back** and **forth** with **directions**, changing them around as she was going through with her model (in the activity)" (Kristina's blog entry, 5/8/2008), and "I realize no matter how well you teach, if I don't have a **direction** and I can't clearly **show** my students **that direction,** no knowledge may help..." (Kristina's blog entry, 5/8/2008).

Discussion and Conclusion

The analysis of the two pre-service teachers' blogs revealed the "unique paths" that these two teachers followed in their learning-to-teach experiences (Antonek et al., 1997: 24). The different developmental "paths" (Antonek et al., 1997: 24) that the two pre-service teachers followed became visible through the analysis of their metaphorical conceptions of teaching. For example, it was found that whereas Kristina relied on the conceptual metaphor THE LEARNING/TEACHING PROCESS IS BUILDING/CO-CONSTRUCTION, this conceptual metaphor was not present in Edie's blog entries. Instead, Edie relied on two other conceptual metaphors. This difference may be due to the particants' distinct educational and cultural backgrounds.

Through attention to the conceptual metaphors in both the supervisor's and the pre-service teachers' blog entries, the study demonstrated how the supervisor promoted the pre-service teachers' learning-to-teach by

providing metaphors that the pre-service teachers could use in thinking about their teaching and in their actual teaching practices and by affirming the pre-service teachers' existing teaching metaphors. Additionally, Melanie used metaphors to explain certain technical terms that appeared in her discourse (Cameron, 2008).

At the same time, the study revealed that the pre-service teachers did not develop new metaphors for thinking about teaching. However, their initial conceptual metaphors of teaching were modified, which serves as evidence of their learning. For example, Edie conceptualized the TEACHING/LEARNING PROCESS in terms of a JOURNEY, but it was only toward the middle of her learning-to-teach experience that she started to conceptualize her students' learning in terms of travelling by themselves and not in terms of "learning to walk." And, though Kristina conceptualized TEACHING as a JOURNEY from the very start of the practicum, she only began to realize the importance of providing clear directions to her students at the end of her practicum experience.

It is interesting to note that in previous studies, researcher's elicited personal teaching metaphors from pre-service teachers showed radical changes in the teachers' conceptualizations, e.g., from idealized ideas about teaching (THE TEACHER IS A BRIDGE BUILDER) to ideas reflecting authoritarian teaching styles (THE TEACHER IS A SUPERVISOR)(Bullough, 1991; Bullough & Stokes, 1994). However, the analysis undertaken in the present study shows that the pre-service teachers did not develop new metaphors for teaching. Instead, their initial conceptual metaphors for teaching were modified, e.g., Kristina relied on the conceptual metaphor THE TEACHING/LEARNING PROCESS IS A JOURNEY from the very beginning, and it was only toward the end of her teaching practicum that she started to realize the importance of giving clear directions to students.

The present study suggests that teachers use diverse metaphors for L2 teaching and learning that offer a tool for teacher self-reflection as well as collaborative discussions among peers and with the teacher educator. In addition, in future investigations of pre-service teachers' learning-to-teach experiences, it would be interesting to undertake an analysis of teachers' practices to determine how teaching metaphors materialize in teachers' teaching, as according to conceptual metaphor theory, metaphors not only determine our thinking, they also determine our actions.

References

Antonek, J.L., McCormick, D.E. & Donato, R. (1997). The student teacher portfolio as autobiography: developing a professional identity. *Modern Language Journal* 81/1, 15-27.

Block, D. (1992). Metaphors we teach and live by. *Prospect* 7/3, 42-55.

Bullough, R.V. (1991). Exploring personal teaching metaphors in pre-service teacher education. *Journal of Teacher Education* 42/1, 42–51.

Bullough, R.V. & Stokes, D.K. (1994). Analyzing personal teaching metaphors in pre-service teacher education as a means for encouraging professional development. *American Educational Research Journal* 31/1, 197-224.

Cameron, L. (2008). Metaphor in the construction of a learning environment. In Berendt, E. (Ed.). *Metaphors for Learning. Human Cognitive Processing* 22 (pp. 159-176). Amsterdam: John Benjamins.

Connelly, F.M. & Clandinin, D.J. (1988). *Teachers as Curriculum Planners: Narratives of Experience*. New York: Teachers' College Press.

Cortazzi, M. & Jin, L. (1999). Bridges to learning: metaphors of teaching, learning and language. In Cameron, L. & Low, G. (Eds.). *Researching and Applying Metaphor* (pp. 149-176). Cambridge: Cambridge University Press.

De Guerrero, M. & Villamil, O. (2002). Metaphorical conceptions of ESL teaching and learning. *Language Teaching Research* 6/2, 95-120.

Firth, A. & Wagner, J. (1997). On discourse, communication, and (some) fundamental concepts in the SLA research. *Modern Language Journal* 81, 285-300.

Gibbs, R. (1994). *The Poetics of Mind: Figurative Thought, Language and Understanding*. New York: Cambridge University Press.

Goldstein, L. (2005). Becoming a teacher as a hero's journey: using metaphor in pre-service teacher education. *Teacher Education Quarterly* 32/1, 7-24.

Kiliańska-Przybyło, M. (2010). Metaphors we teach by: Some procedures that trigger EFL teachers. *Humanizing Language Teaching* 12/4, n.p.

Lakoff, G. & Johnson, M. (1980). *Metaphors we Live By*. Chicago: University of Chicago Press.

Little, W., Fowler, H.W., Coulson, J. & Onions, C.T. (Eds.) (1973).*The Shorter Oxford Dictionary on Historical Principles* (3rd edition).Oxford: Clarendon.

Pragglejaz Group. (2007). MIP: A method for identifying metaphorically used words in discourse. *Metaphor and Symbol* 22/1, 1-39.

Roth, W-M. & Tobin, K. (2002). *At the elbow of another: Learning to teach through coteaching*. New York: Peter Lang.

Schmitt, R. (2005). Systematic metaphor analysis as a method of qualitative research. *The Qualitative Report* 10/2, 358-394.

Schmitt, R. (2007). Attempts not to over-generalize the results of metaphor analyses. In Kiegelmann, M., Gürtler, L. & Huber, G.L. (Eds.).*Nexus Qualitative*

Psychology V: Generalization in Qualitative Psychology, 53-70. Tübingen: Huber.

Summers, D. (2003). *Longman Dictionary of Contemporary English* (4th edition). London: Longman.

Tobin, K. (1990). Changing metaphors and beliefs: a master switch for teaching? *Theory into Practice* 29/2, 122-127.

Tobin, K., Kahle, J.B. & Fraser, B.J. (Eds). (1990). *Windows into Science Classrooms: Problems Associated with Higher-level Learning.* London: Falmer Press.

Tobin, K. & LaMaster, S.U. (1995). Relationships between metaphors, beliefs and actions in a context of science curriculum change. *Journal of Research in Science Teaching* 32/3, 225-242.

Zeichner, K. & Liston, D. (1996). *Reflective Teaching: Introduction.* Mahwah: Lawrence Erlbaum Associates.