METAPHORS AS TOOLS FOR PROFESSIONAL SENSE MAKING

Hilary Monk
Bethlehem Tertiary Institute, New Zealand

ABSTRACT

Metaphors which pervade everyday life are found in language, thought and action as a means of conveying beliefs and values (Lakoff & Johnson, 1980). A metaphor about teaching and learning can express the work teachers do and how they do it.

This article contributes to the growing body of educational research that explores teachers’ use of metaphorical images of teaching and learning. It focuses on the valuable perspective and useful contribution working with metaphors can make to teachers’ thinking, and sense making. The article presents research conducted with early childhood teacher educators and their graduates using Grounded Theory (Glaser, 1992) methodology, where metaphors were used as one of the data collection tools. Emerging from the study was the centrality of relational connectedness between the teacher, learner, content and contexts of teaching and learning. The complexity of inter-relationships found in teaching and learning were experienced as both reciprocal and transformational for both the teacher and the learner.

Key words: Grounded Theory; metaphors, teaching and learning, early childhood, teacher education

INTRODUCTION

Teaching and learning are complex activities. As educators we frequently search for ways of communicating our thinking and experiences as we seek to make sense of them. The concepts we hold and seek to express include those that are intellectual, socio-cultural, emotional and spiritual; they are central in defining our perspectives, relationships, and everyday realities. Lakoff and Johnson (1980, p. 3) suggest that “our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature”. Such conceptual systems are often captured in personal metaphors.

METAPHORS CONTRIBUTE TO TEACHERS’ THINKING AND SENSE MAKING

The term ‘metaphor’ can be explained as a literary device or a figure of speech giving metaphorical relationships nothing more than surface meaning. The literature, however, seems to argue against positions that treat metaphors as trivial products of thinking. Rather they conclude that metaphorical relationships form a major part of our conceptual
system (Lakoff & Johnson, 1980; Martinez, Saulea, & Huber, 2001). Metaphors seem to pervade everyday life including language, thought and action as a means of conveying people’s beliefs and values (Chen, 2003; Lakoff & Johnson, 2003; Lawley & Tompkins, 2000; Martinez et al., 2001; Monk, 2005; Tobin, 1990).

The Greek root of metaphor is ‘metapherein’ meaning, to transfer (Garner, 2005). Metaphors use familiar ideas, words, and phrases in order to provide greater clarity and meaning to something that is abstract or unfamiliar. Metaphorical transfer is commonly just in part. Mackinnon (2004, p. 400) notes that “[o]nly selected features of the phenomena are compared. Thus, ‘That man is a pig’ is likely to be highlighting an aspect of the man’s behaviour rather than his appearance or genetic make-up.”

The term “cross-domain mapping” (Lakoff, 1993) is explained by Ho (2005, p. 360) as involving “understanding one domain of experience in terms of a very different domain of experience, or a mapping from a source domain to a target domain. It is through such cross-domain mappings that human beings make sense of their experience, construct reality and identities.” Therefore, metaphors might be understood as providing a “type of shorthand to help define the intangible or abstract” (Garner, 2005, p. 2) consequently making “an idea more transparent and easy to understand” (Chen, 2003, p. 24). This links with the idea that people understand the new in terms of the known. Metaphor has been described as a tool in the creation of reality. Once voiced the metaphor can become a reality in itself therefore directing the future construction of meaning (Lakoff & Johnson, 1980; Parsons, Brown, & Worley, 2004). There is a growing body of educational research and scholarship that explores the use and value of metaphorical images within teaching and learning.

**METAPHORS AND RESEARCH**

Metaphors have been used successfully as a teaching tool to enhance assimilation and retention of information by learners (Garner, 2005) as well as supporting student teachers as they engage in and make sense of practicum placements (Goldstein, 2005). Metaphors have also been the vehicle used to gain an understanding of the post-graduate research supervision process (Mackinnon, 2004).

A range of studies has considered the use of metaphor/s in conjunction with various aspects of reflection on teaching and learning practice (Amobi, 2005; Britt & Sumson, 2002; Ho, 2005; Lesnick, 2005). Teachers have used metaphors to aid reflection on their professional roles, purposes, values and beliefs. The identification and exploration of personal metaphors can provide opportunities for teachers to consider past, present and future practice. Lakoff and Johnson (1980, pp. 232-233), key authors on the subject suggest:

“[j]ust as we seek out metaphors to highlight and make coherent what we have in common with someone else, so we seek out personal metaphors to highlight and make coherent our own pasts, our present activities, and our dreams, hopes and goals as well. A large part of self-understanding is the
search for appropriate personal metaphors that make sense of our lives” [emphasis in the original].

Awareness of a dominant personal metaphor(s) that guides teaching can enable teachers to consider new ideas, concepts and thinking. It is however, also possible that some metaphors can be unhelpful and “may limit their thinking and render the complex act of teaching as simplistic and technocratic” (Monk, 2005, p. 56). The challenge of choosing a personal metaphor can be difficult and time-consuming. Also the development of a personal metaphor(s) might only appeal to the more linguistically inclined person (Goldstein, 2005).

The choice of metaphor(s) to represent teaching and learning is in itself a complex activity. Differences in life experience, culture, age, belief, ethnicity, gender and race are some of the distinctions that might influence both the choice of metaphor(s) and how they are perceived by self and others. The person choosing the metaphor may well ‘sense’ a metaphorical connection on the surface and use it as a means of description, evaluation and explanation. Later, an additional interpretative function that is not immediately evident but that becomes pivotal when considering personal attitudes, actions, beliefs and values may become apparent.

There are various examples of metaphors being used to conceptualise teaching theory and practice. For example, the metaphor of ‘scaffolding’ is commonly linked to Vygotskian social/cultural theory, in particular his theory of the zone of proximal development. The scaffolding metaphor is used to describe the support given to a learner by an adult or skilled peer which is progressively withdrawn as the learner extends their skill, knowledge or understanding (Berk & Winsler, 1995; Cortazzi & Jin, 1999; Dockett & Fleer, 1999). “The term ‘scaffolding’ although not originally used by Vygotsky, was introduced by scholars trying to determine the most important components of tutoring .... (and) has since become an extremely popular and useful idea in the fields of psychology and education” (Berk & Winsler, 1995, p. 26). Just as the scaffolding that surrounds a building enables the builder to work in ways that would otherwise be impossible without it, this concept is transferred to the learner who can be viewed as actively constructing their skill, knowledge or understanding within the socio-cultural context that surrounds them enabling them to go beyond what they could do alone.

The New Zealand Early Childhood Curriculum (Ministry of Education, 1996) is a further example. The title, Te Whāriki is translated as ‘a woven mat’, providing principles, strands and goals on which early childhood educators weave their individual programmes (Nuttall, 2003). The weaving metaphor can also provide teachers and centres a means of expressing and making sense of the inter-relationships of educational concepts, ideas, and theories as they ‘weave’ their early childhood pedagogy. If metaphors are to contribute to teachers’ sense making then they must ‘bridge’ the abstract with the familiar (Cortazzi & Jin, 1999). Such activity was central to the study and is at the heart of this article.
THE STUDY: BACKGROUND INFORMATION

The study (Monk, 2004) that provides the context for discussion in this paper was one in which metaphors of teaching and learning were gathered as part of the research data. Set in an early childhood initial teacher education programme, the study focus was teachers' perspectives of relationships within the activities of teaching and/or learning. The six participants were teachers/learners in the Bachelor of Education (Teaching) Early Childhood Education programme of a small private New Zealand teacher education institution. Three participants were beginning teachers; the other three participants had been their teacher educators. The teacher educators had between one and six years tertiary teaching experience. All participants were female.

The study was designed in two phases. Phase one involved an initial interview with each participant in which the focus of the discussion related to participants’ views and perspectives of the teaching and learning process. At the conclusion of this interview participants were asked to take time to consider their personal metaphor/s of teaching and learning in preparation for a further interview a week or so later. As an aid to this process, participants were invited to complete the phrase/s “Learning is like ... because ...” and “Teaching is like ... because ...”. Participants were given the option of creating their metaphor/s as a visual image or putting their thoughts into words of prose and/or poetry. Phase two interviews focused entirely on the participant’s metaphor/s. In addition, a focus group meeting involving all but one of the participants occurred after initial data analysis. This provided an opportunity for participants to check and thereby confirm or reject the analysis. Such a process was deemed to be in keeping with Grounded Theory which served as the methodological framework for the study.

METHODOLOGICAL FRAMEWORK

Grounded theory is a qualitative research methodology which derives its name from the practice of generating theory from research which is ‘grounded’ in data (Glaser & Strauss, 1967). Glaser and Strauss sought to provide an alternative research strategy which moved away from the more traditional approaches of scientific inquiry which relied heavily on hypothesis testing and other quantitative forms of analysis, which were popular at the time (Babchuk, 1996).

A range of factors influenced the choice of methodology, particularly the aspect that it “allow[ed] for the development or generation of a theory closely related to the context of the phenomenon being studied” (Creswell, 1998, p. 56). Refraining from the act of ‘proving’ an already developed hypothesis and instead ‘wondering’ and ‘watching’ as a theory developed was pivotal. A further attraction was the concept that “grounded theories have ‘grab’ and they are interesting. People remember them; they use them” (Glaser, 1978, p. 4). The study was guided by the work of Glaser and Strauss (1997) and the later work of Glaser (1998; 2001).

Undertaking research with a focus on the interests of the participants as opposed to those of the researcher was an additional consideration. Rolfe and MacNaughton (2001, p. 3) suggest that “the best research will always include close, ongoing collaboration amongst
those who plan the research, those who carry it out, those who participate in it and those for whom the results have impact". Grounded theory provided such opportunities encompassing relevance for the participants and fit for the Institute at the centre of the study.

As with any research, the breadth and depth of analysis becomes a key factor in understanding the data. The analysis of the data occurred through coding the transcribed interviews individually and then collectively within each phase before bringing the findings of both phases together for comparison. The process of coding is at the core of the grounded theory methodology. It is defined by Glaser as "conceptualising data by constant comparison of incident with incident, and incident with concept to emerge more categories and their properties" (Glaser, 1992, p. 38).

**INSIGHTS / FINDINGS**

From the analysis and coding of participants’ metaphors two primary categories with their inherent properties emerged: firstly the concept of relationships within teaching and learning being *reciprocal* and secondly, *transformational*. The following table sets out the metaphors used by the participants linked to these two categories. These two primary categories are then used to structure the following section.

**TABLE 1**

<table>
<thead>
<tr>
<th>Reciprocal</th>
<th>Transformational</th>
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<tbody>
<tr>
<td>Playing Tennis</td>
<td>Planting a seed or seedling</td>
</tr>
<tr>
<td>Guiding a tourist</td>
<td>Gardening</td>
</tr>
<tr>
<td>Drinking a glass of water</td>
<td>Constructing a building</td>
</tr>
<tr>
<td>Gardening (can be transformational as well)</td>
<td>Embarking on a journey or bush walk</td>
</tr>
</tbody>
</table>

In keeping with much qualitative research, the ability to generalise from this small scale study is appropriate only to the extent that the findings resonate with its readers. Within the following discussion the names used are actual or pseudonym as chosen by each participant.

**Reciprocal**

Melody, Nadine and to a lesser extent Kath and Tori, chose metaphors that included the reciprocal nature of teaching and learning.

Melody explained that she chose the metaphor of a tennis match because:

> Teaching and learning is a two way thing, as you are teaching you are also learning ... to me they go hand in hand ... you can't really play tennis alone ... so for me I would say that I am one of the players and the students are the other players ... it is two way in that sense that I am teaching them something but I am also learning from them.
Nadine’s metaphor of the guide and tourist portrayed a reciprocal relationship where the teacher might be the teacher or a co-learner and the student might be the one who asks the questions that cause that co-learning to take place.

... as the guide on the bus may have been there before and so you can talk about the signposted sights but you may also see new things that the tourists draw your attention to ... I think there is a time for the teacher to be the learner ... you might be co-learners at the same time.

While Kath was explaining her gardener metaphor she included a comment regarding the gardener’s relationship with other gardeners which again emphasised the reciprocal elements of giving and receiving.

... (the gardener) might be a person who wants to seek knowledge so he might belong to a gardening club ... he is going out and talking with other people about what he is doing and he might be saying I am having a problem with this or a problem with that and he is open to advice and support and he is willing to take that on, and give as well, so it is both ... he is giving information and he is taking on information. - I see why it is reciprocal now.

Reciprocal relationships were identified within Tori’s metaphor between the garden and the gardener.

Teaching is like gardening ... teachers can learn and learners can teach ... the garden can teach the gardener ... just like this three year old has shown me that I would never have seen for myself.

The reciprocal category encompassed the belief that relational teaching and learning involved both giving and receiving by those involved. The teacher was seen as both a teacher and a learner, and the learner being both learner and teacher. This concept is expressed in the Māori word ‘Ako’ which means to both teach and learn. Apps (1996, p. 15) believes “everyone is a learner and everyone is a teacher”. Creating a relationally reciprocal environment is vital if teachers are to do more than give, give, give until they are squeezed dry. There needs to be a responsive and reciprocal flow so that “when we give we can also receive” and that can only occur if teachers are open to what students and others have to offer (Houghton, 2001, p. 708). 

Reciprocity captured the participants views of the complexity and importance of the teaching and learning relationship being worked out through the giving and receiving of materials, knowledge, skills and attitudes (such as care, trust, encouragement and appreciation). Reciprocity included the learner as well as the teacher, stressing the responsive and reciprocal nature of the socio-cultural context in which learning/teaching takes place (Ministry of Education, 1996, 1998). Reciprocal relationships occurred with peers, students’ families/whānau, the wider community as well as local, national and international learning and teaching communities. - being open & forming relationships.

Responsive reciprocal relationships have the potential to be both positive and negative and may not be devoid of tension and ‘power’ despite the best intentions of those
involved. The concepts of reciprocal relationships are often linked in the literature to ideals of equality and partnership but the validity of this is questionable. Some authors in the early childhood sector (Keeung-Styles, 2000; McLeod, 2003) discuss ‘expert power’ particularly linked to the professional relationship/s between teachers and parents/whanau. Although the participants of this study did not specifically identify or discuss aspects of ‘power relationships’ within their chosen metaphors, there is still evidence of power embedded within the metaphors they chose. For example, a gardener has power over the positioning of the plants, and a guide chooses the points of interest to be visited by the tourist.

**Transformational**

In addition, participants’ metaphors portrayed the concept that relationships were also transformational involving growth and change. The metaphors discussed by Kath and Tori expressed the concept of transformation in terms of the growth and development of plants in a garden:

> I put myself as the teacher, this is the gardener and the garden is the students ... you are going to hopefully nurture growth from your students in your garden ... them beginning to understand and grow from what you have taught them. (Kath)

> ... when you plant a seed you’re expecting to see the result and with teaching you’re kind of expecting to see a result ... it takes time, it is not instantaneous, you plant a seed and you don’t see it grow two minutes later. (Tori)

Kath further suggested that the level of commitment of the gardener could affect the degree of transformation that would take place:  

> for sure, most remember to be a good role model.

> the gardener needs to be the kind of person who is willing to stop and listen and learn and look at each plant or each student, to see what their needs are if the plants are going to develop ... the gardener needs to strive to be a good gardener ... a committed gardener, not someone who is haphazard in their gardening ... be responsible and have a heart for it.

In Kaye’s metaphor development and change was linked to the construction of a building:

> ... different parts are built at different times ... you learn to build the house at first and then you become independent building your own rooms (Kaye)

A sense of transformation was included in Nadine’s view of the interactions amongst the teacher, student and various environmental influences, some of which might limit the transformation or change that takes place:

> ... you don’t have any control over the make up of the plant ... so in the classroom situation I don’t have any control over their physical capacity,
intellectual capacity, spiritual nature ... I provide the watering and may add a little bit of nutrient and sustenance ... but I cannot make it into a bear or a fish it is still going to be a child. (Nadine)

Kath also discussed the metaphor of embarking on a bush walk in which she suggested change in the confidence and experience of the trampers as they walked:

In the beginning there is that sort of uncertainty ... then you think, yes I can do this ... you gain new insights and when you have finished you have a sense of elation.

The transformational category encompassed beliefs that relationships within teaching and learning had the potential to open the door of transformational change in areas such as attitudes, social responsibility, as well as self and other awareness. Relational teaching and learning involved more than the transmission of knowledge and developing of skills. Biesta and Miedema (2002) argue that although presently there is an increased emphasis on education as instruction, there is also a pedagogical and transformative aspect to it because of a concern for the learner as a whole person.

While the impact that teaching and learning relationships have on people’s lives is likely to vary, it is widely acknowledged that there will be some degree of impact and that such impact will involve change. The participants spoke of change occurring in themselves, their learners and the learners’ families/whanau, as well as within their teaching teams and the wider community. Although none of the participants referred to themselves as being ‘transformational educators’, nor did they comment specifically on the theoretical aspects of transformational teaching, they all expressed an interest in teaching because ‘it made a difference’ in people’s lives, both personally and professionally.

Therefore it is transformational.

However, change is not always a positive experience. The person who is challenged to question the assumptions underlying habitually accepted ideas or actions ... (and who then comes to see that what) they previously accepted as common sense, taken-for-granted, conventional wisdoms are distorted and inadequate” (Brookfield, 1990, p. 46) might find the process distressing and disturbing. Transformational teaching and learning may well involve emotions of various kinds at various levels. For transformation to occur there needs to be a shift in a person’s thinking and/or behaviour. Participants expressed that this was sometimes exciting and other times painful.

Dependent on the individuals view on change.

Why change? If transformation or change is going to take place it would seem logical to assume there is a ‘better way’ of thinking or behaving. What makes one way of thinking ‘better’ than another or one way of behaving ‘better’ than another? Is there a ‘better’ way or is it actually a ‘different’ way, with many ways being equally ‘good’? Who is deciding what is ‘better’ and what are the ethical considerations surrounding this decision? These questions may well link to an even more complex question, ‘what is the role and purpose of education?’ This study did not consider or debate the role and purpose of education. However, the beliefs and values that underpin teaching and learning relationships will influence the nature and extent of those relationships, as will the goal for learners to become independent, dependent or interdependent.

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CONCLUDING THOUGHTS

Relationships are at the core of teaching and learning. Such relationships are complex, involve connectedness and can be both reciprocal and transformational for teachers and learners. The early childhood teacher educators and beginning teachers who were participants in this study articulated metaphors that for them bridged abstract and familiar concepts. They expressed connections between the teachers, learners, content and contexts that were not limited by age, gender, belief, race, ethnicity or culture. For them, relational connectedness was an essential element of the teaching and learning process.

However, the findings of this study raise questions for both teachers and teacher educators. If relationships are at the core of teaching and learning and if these relationships are to be both reciprocal and transformational, then what provision is being made within initial teacher education programmes to create safe spaces for reciprocal and transformational teaching and learning to occur? There is a need for intellectual space — to try out new ideas; spiritual space — to explore relationships; physical space — to be alone or part of a group and emotional space — to recognize and express feelings (Apps, 1996). Both space and time are needed for reciprocal and transformational relationships that allow for development and growth.

This article has argued that metaphors have the potential to contribute to teachers’ thinking and sense making. If this is correct, then what use is being made of personal metaphors as tools of professional inquiry and learning as part of preservice and/or in-service teacher development? Personal metaphors can raise teacher’s awareness of personal thinking and understanding, aiding reflection on their professional roles, purposes, values and beliefs. Although teachers may have similar insights these will commonly be expressed through the choice of different metaphors. As teachers are involved in and profess their personal sense making, ownership of their professional development and practice becomes apparent and is enhanced (Norsworthy, 2003).

In conclusion, metaphors can be used as a tool to describe teaching and learning but if they are to be truly useful they must go beyond this and become a conceptual tool that provides opportunities to consider perspectives, organization and decision making bringing a sense of ownership and commitment within teachers’ professional practice.

REFERENCES

