

A Teacher is ...: The Use of Metaphors with Pre-service Teachers

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Metaphor is a rich literary device that has the potential to articulate intentional processes (Glucksberg, Keysar, and McGlone, 1992). The key quality that recommends the use of metaphor with pre-service teachers is its ability to function as a connecting agent. As Wong (1993) explains, when we carry over the expression of one thing in order to relate it to another, we do not build categories but expand our experience of similarities. The research discussed in this paper is related to our collective tertiary teaching experience as we have grappled with how to best inform, excite, and liberate our pre-service education students from their fears and concerns about teaching children with special educational needs. Specifically, over the last three years, we have focused on one aspect of our own and our students' thinking about teaching in inclusive classrooms - the use of metaphors as constructs which provide insights into individuals' conceptions of themselves as "teachers" and what teachers "do". The use of metaphor in teacher education provides both experienced instructors and pre-service novices with the invitation to risk entertaining different and challenging ideas about themselves and their work. Although we began this exploration of metaphors focused on our students' responses, we have also investigated our own personal educational life histories and ways of conceptualising of teaching. In this paper, we will outline the usefulness of rethinking professional practice in terms of different metaphors of teaching, describe how we incorporate discussion of metaphors and related assessment tasks into our core special education unit, and share examples of metaphors developed by our students. In conclusion, we will comment on the value to us as a teaching team inherent in the sharing of life histories and our own metaphorical journeys as teachers.

Introduction

In 1999 the Special Education teaching team of the University of New England took up the challenge of introducing a year-long core pre-service teacher education unit in special education, EDST 280: The Inclusive Classroom. This new unit replaced an earlier, single-semester unit that had been operating for some years. The development of critical self-reflection skills for emerging teachers was considered an essential part of this new unit in order to "equip students for teaching in the complex, inclusive classrooms of the twenty-first century" (Graham, Richmond and Paterson, 1999, p.5). The work to be discussed in this paper relates to our collective tertiary teaching experience within this core unit over the last three years. It focuses on our use of metaphors to encouraging students' critical self-awareness and reflection.

Metaphors of Teaching

Each year at the University of New England, approximately 150 Bachelor of Education students and 250 Graduate Diploma of Teaching students are enrolled in introductory special education units. In the on-campus offering of EDST 280, we have used metaphors to provide insights into individuals' conceptions of themselves as "teachers" and their understandings of what it is that teachers do to manage inclusive classrooms. In this paper, we will outline what we believe to be the usefulness of

conceptualising professional practice in terms of different metaphors of teaching, describe how we incorporate discussions of metaphors and related assessment tasks into our core special education unit, and share examples of metaphors developed by our students.

Our interest in using metaphors to encourage reflective practice was in part stimulated by concern about the less tangible aspects of teaching, or what Stengle (1997) calls transitive knowledge. She defines transitive knowledge as “moral knowledge, arising out of connection with other persons and the world” (p. 26). Stengle (1997) argues that “If ... moral, intellectual, and psychological self-awareness do not appear on the list of ‘what teachers should know’, they will not be addressed within the teacher education program.” In striving to foster self-awareness and critical reflection in our students, we have explored metaphors of teaching and asked students to articulate their own conceptions of what “teachers” are and what teachers “do”. We have also constructed assignments that facilitate students’ awareness of changes that occur to their conceptions of teaching over the course of the year-long EDST 280 unit.

The key quality that recommends the use of metaphors to our teaching is the ability of these literary devices to function as powerful connecting agents between ideas. When we express one thing in terms of another, we do not build categories and separateness but expand our experience of similarities (Wong, 1993). The links between seemingly disparate concepts that emerge when they are related metaphorically are often rich, playful, and illuminating. In fact, we believe the use of metaphors in teacher education, effectively provides pre-service novices who are operating without a repertoire of automated procedural knowledge, with an invitation to risk entertaining creative and inclusive ideas about themselves as professional teachers.

As Glucksberg, Keysar, and McGlone (1992) conclude from their work on metaphorical understanding, when we build language, we also begin to think about ourselves differently in the world. For pre-service teachers, developing metaphors of teaching can seed new stories that in turn shape their emerging personal and practical knowledge. Indeed, metaphors may move students from being overwhelmed by the practicalities of teaching to a more metacognitive perspective about the purpose of teaching that places emphasis on the interconnectedness and flow inherent in what a teacher does.

Bullough and Stokes (1994, p. 200) have stated that the use of metaphors in teacher education supports “self-exploration collectively as well as individually”. Developing cohesive metaphors to guide individual’s future practice can also assist in uncovering and exploring their assumptions about teaching and learning, about themselves as teachers, and about their visions of the desired role of “teacher” (Bullough, 1992). As such, the exploration and sharing of metaphors related to teaching becomes an opportunity to define what it is that pre-service teachers do and do not want to be as teachers based on their personal educational experiences. There is also an emphasis in a unit such as EDST 280 on the use of metaphors as a vehicle by which students can confront their attitudes to diversity and disability in inclusive classroom settings and in the wider society.

In recent years, metaphors, as tools of pedagogical process, have been used with pre-service teachers (Bullough and Stokes, 1994; Graham, Richmond and Paterson, 1999;

Hagstrom, Hubbard, Hurtig, Mortola, Ostrow and White, 2000), practising teachers (Black and Halliwell, 2000; Grady, Fisher and Fraser, 1996; Turner, 2000), academic working parties (Woods, Dias and Ellis, 1997), and children in classrooms (Fraser, 2000). In professional learning and teaching situations, metaphors have most often been used to illuminate conceptualisations of teaching, and subsequently, as conceptual guides for practice (Woods, Dias and Ellis, 1997). It is this use of metaphors, as a way of illuminating and guiding practice, which we have sought to employ in our teaching of EDST 280: The Inclusive Classroom.

Metaphors and the Inclusive Classroom

Background

The University of New England is an Australian regional university with a strong teacher education program. Within this program students are required to complete a special education unit, EDST 280: The Inclusive Classroom, during their second year of studies. This unit aims to develop pre-service teachers' awareness and appreciation of the range of individual differences that exist among school age children and equip them with the necessary skills to recognise and respond appropriately to diversity. As part of EDST 280's assessment requirements, pre-service teachers have been required to develop and present their individual metaphors of teaching and to remain mindful of changes in these metaphors over the duration of the unit. In addition, students have also been required to contribute to an online forum topic and a seminar relating to their metaphors of teaching.

Metaphor Tasks

In the following sections we will describe the process that the EDST 280 teaching team has designed to facilitate the development of metaphors by our students. We will discuss the metaphor assessment tasks and briefly describe the purpose of the associated lecture presentation, online forum discussion, and student-led seminar topic. We will also present some excerpts from students' papers to illustrate the kind of responses that students have made to the metaphor task. Figure 1 displays in graphical form the aspects of our unit that are focused on the development of pre-service teachers' metaphors of teaching.

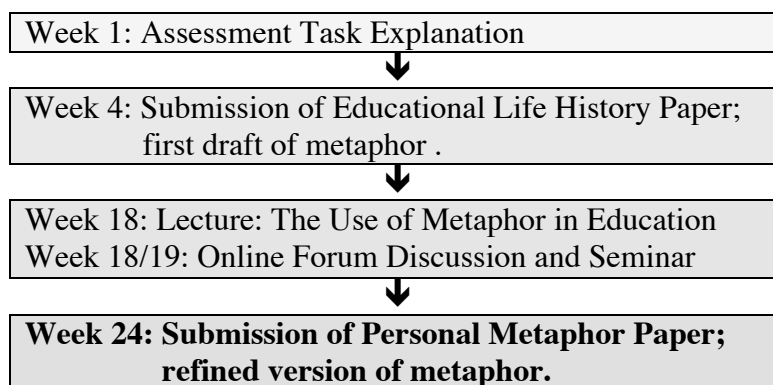


Figure 1: Process of Metaphor Development in EDST 280

The boxes in Figure 1 show graduation in the intensity of shading to represent the progressive contribution of each part of the process of building personal metaphors of teaching. Within this process, the scaffolds that guide our students' engagement with the task of developing personally meaningful metaphors aim to be cumulative, dynamic and flexible.

Written Papers

The assessment task related to metaphors is two-fold and valued at 20% of the total unit grade. The first part of the task (Educational Life History: 5%), which is submitted early in the first semester, required students to reflect on their previous educational experiences and uncover a metaphor that gives their experiences meaning and illuminates their thinking about the role of "teacher" (see Table 1). We aimed, as Bullough and Stokes (1994) have done previously, to encourage students to "generate their own metaphors seeking to capture the themes of their histories and their images of themselves as teachers" (p. 203).

The first paper requires you to reflect on the factors that have made you the learner/pre-service teacher that you are and the metaphor that you are developing. This will include:

- Identifying important people or critical incidents that significantly influenced your decision to enter teaching and your thinking about the aims of education. You may be able to recall incidents that relate particularly to inclusion or to diversity in schools.
- Considering your experience of school as a student, how school felt, how you best learned, as well as when you felt most valued, included, connected and at peace - or least valued excluded, most disconnected and at war with yourself and with school, and
- The metaphor that gives your experiences meaning.

Table 1: Educational Life History Assignment

Many of the pre-service teachers with whom we have worked have found it more natural to think in terms of simile (A teacher is like ...) rather than metaphor (A teacher is ...). In order not to obscure the purpose of the task, we accepted similes as well as metaphors from our students. Carlson (2001) has also adopted this approach in her recent work with pre-service physical education students.

The second part of the metaphor task (Personal Metaphor Paper: 15%) asked students to further develop their metaphor and to link it to the roles and responsibilities of teachers in inclusive classrooms, as well as to their vision of teaching and their philosophical approach to education (see Table 2). This assignment was submitted towards the end of the second semester in the year-long special education unit that we teach.

As part of the second metaphor paper you are urged to:

- Link your metaphor to yourself as an aspiring teacher and your experiences taking on the responsibilities of teaching - lesson preparation, management, responding to students' needs and abilities, etc
- Outline your vision of teaching and your philosophical approach to the role of the teacher based on where you are at the moment.

You will most likely find that there is a continuous evolution of your personal metaphor - the activity of thinking and writing about it will lead you further on your evolutionary path.

Table 2: Personal Metaphor Paper

Lecture presentation

The pre-service teachers' first formal introduction to metaphor occurred during a lecture. In the lecture presentation, the uses of metaphor in educational research and practice were explored. Then several members of the teaching team shared their own metaphors (e.g. coach, sailing ship, architect, gardener, multi-armed Indian goddess) to provide examples for our students. This process is suggested by Bullough and Stokes' (1994) in their article, "Analyzing Personal Teaching Metaphors In Preservice Teacher Education As a Means For Encouraging Professional Development". As a teaching team, we felt that before we could ask our students to recount their life histories and develop a cohesive understanding of themselves as teachers, it was necessary for us to work through the process as well. The outcome of our engagement with this process has been a deeper understanding of the complexity of metaphors and the enhancement of our ability to work together as a result of sharing our own life histories and metaphorical journeys as teachers. The stories, similies, and metaphors presented during the lecture illustrated powerful links to the personal and professional contexts of each lecturer and illuminated specific aspects or issues associated with teaching in inclusive classrooms (see Graham, Richmond and Paterson, 1999, for a further discussion of our personal metaphors).

Online forum

In the week following the lecture, our EDST 280 students were required to access and post contributions to the online forum based on their reactions to and reflections on the lecture. This was the usual process for each lecture topic presented in EDST 280 and provided an opportunity for students to take part in an informal, but public, discussion, and to explore with all members of the class their own metaphors, as well as those presented by the lecturers.

Student-led seminar

The student-led seminar on the topic of metaphors of teaching was timed for the week after the lecture presentation. This seminar allowed students to share the development of their metaphors and consider them in light of selected literature on the use of metaphors in education. Carlson's (2001) article that describes the use of metaphor with pre-service physical education teachers, was used to scaffold the discussion and the seminar presentation. Receiving feedback from peers about their ideas, brainstorming suggestions, and extending a metaphor to see how it might cover all the possible roles of a teacher in an inclusive classroom were important facets of this student-led seminar. The seminar question set for the students is provided in Table 3.

Using the four main themes from Carlson’s research (teaching approaches, classroom climate, teacher growth, and making a difference) consider the importance of metaphor in enhancing **meaning** and **engagement** for pre-service teachers.

- How effective are metaphors in the evolution of these processes?
- How important is personal meaning in developing a metaphor?
- How important is writing and discussing the metaphor to its usefulness?

Table 3: Focus Question for the Student-Led Seminar

Examples of Student Metaphors

The following section presents excerpts from some pre-service teachers’ Personal Metaphor Papers. They are examples of the kinds of responses that our students developed to the metaphor tasks. These particular examples are included in this paper with the permission of their authors.

Susannah - a teacher is a gardener

My flowers change with the seasons and blossom at different times. It is easy to forget that flowers from the same family, or that appear the same on the surface, may need different types of sustenance, and I must take this into full consideration when tending to them. Some flowers may look slightly different or grow differently to how most gardeners think they should, but this is part of what makes each of these flowers such an incredible thing in the first place. I hope that my garden will be a place where plants will flourish, and as I obtain more gardening skills, that I can continue to benefit these flowers through my knowledge and experience.

Anello, Gandolf, Scott, and Unser (1998) sum up my belief about teaching very well in a quote which says “the wonderful uniqueness and potential of each and every child in the room. . . . is the sight that brings most teachers to the classroom in the first place, and which inspires their best efforts and their commitment to their calling.” This refers to my metaphor as a gardener. Gardeners love different plants because of the “wonderful uniqueness and potential of each and every” plant in the garden.

Karen - a teacher is a tree in the rainforest

Teaching is like a rainforest in that it is an enchanting place full of beauty and life. A spirited place that is characterised by a vast diversity of students with differing interests and needs. An exciting place, forever alive with the co-operative buzz of students working together. The rainforest is a classroom where the teachers are the trees in the canopy, their strong roots providing stability throughout the changing seasons and their long branches reaching out to others, forming a collaborative and positive ecosystem that shelters and protects the precious life. Teaching is like the rainforest in that it is an ever-changing, growing environment that is so important for the growth and well being of life.

Brad - a teacher is a weather forecaster

As a weather forecaster, and aspiring teacher, there is no reason why everyday cannot be the one perfect day that occurs each year during the summer months -- regardless of what the “actual” weather is like outside. The key to this forecast is fun, interest and excitement – if you can provide these key ingredients in the classroom, along with a positive ambience, I would “predict” that everyday could bring sunshine to the classroom and to students’ lives. How do you do this? How do you find a never-ending source of sunshine? As a teacher, the answer is in front of you. There are up to thirty individuals in a classroom, thirty individual rays of sunshine. ...Focus on the students as part of a learning community, and you will have a forecast more impressive than Queensland’s *Beautiful one day, perfect the next!*

Susannah, Karen, and Brad's metaphors all indicate an awareness of the diversity inherent in inclusive classrooms and illustrate a valuing of individuals and a desire to meet all students' educational needs. As previously stated, an aim of EDST 280 was "to increase pre-service teachers' awareness and appreciation of the range of individual differences that exist among school age children and equip them with the necessary skills to recognise and respond appropriately to diversity". The three examples above represent some pre-service teachers' attempts to organise their awareness of diversity in the classroom into their own guiding metaphor of teaching. Their use of metaphor illustrates a "connectedness of ... personal, professional and practical ways of knowing" about the self and about teaching (Black and Halliwell, 2000, p.104).

As far as "responding appropriately to diversity" is concerned, these same papers also show how our students have begun to see themselves as teachers who are prepared to recognise and accommodate individual needs within inclusive classroom settings. In the excerpts below, Susannah writes that as a gardener (her metaphor for a teacher) she must notice every flower because, "Whatever it is they need, it is my job as the gardener to recognise their needs and provide for them."

In developing a metaphor around the image of the sheltering canopy of rainforest trees, Karen integrated references and organised some of the overarching ideas presented in EDST 280. She also included a specific example of teaching a student with attention problems in her discussion. She writes that, "Although this is just one example of catering for the individual needs of a child, it clearly demonstrates that like the plants and animals in the rainforest, individual students have different needs that require specific adaptations in order for them to reach their potential."

Brad's elaboration of his metaphor of a teacher as weather forecaster, not reproduced in this paper, included a mock fairy tale, a section that recounted all of the metaphors he ever vaguely considered developing, and a table of correspondences between the roles of a weather forecaster and a teacher. In his paper, Brad also related providing a national weather forecast, a core concern of weathermen, with the task of catering for all students in his class and developing an Inclusive Classroom. Later in his discussion, he noted that, "Each individual has different experiences, different thoughts, different learning styles and different needs. Each individual has a different impression of the perfect weather conditions." Brad concluded this section of his paper with the realistic comment that, "Personally, there is still a long way to go, before I will be able to begin developing my own weather conditions in the classroom."

Susannah – some flowers need more watering

I would like to be a "good" teacher in the sense where "good" incorporates fun, enjoyable, and effective teaching. Each flower needs a variety of elements and nourishment to survive. Some flowers need more watering, others need more fertiliser, or sun. Whatever it is they need, it is my job as the gardener to recognise their needs and provide for them.

Karen – the trees in the canopy

Within the rainforest environment, the trees in the canopy will need to shelter animals that are endangered as well as those who are more able animals. Similarly, Foreman (2001) argues that within any one classroom there will be a need for teachers to cater for students with and without learning difficulties and disabilities. In this regard, although students with special

needs that require more precise or written instructions, extra assistance with their work and more time to complete their work, Grebenstein (1995) argues that they rarely require technologies or teaching styles that are foreign to teachers. Rather, in order to enhance the comfort, self-esteem and learning of students with special needs, teachers are required to make instructional adaptations, curriculum modifications and changes to the physical environment.

For instance, in order to assist the learning of students with attention deficit disorders, the teacher may need to adapt work assignments by breaking them into smaller parts, providing extra time for completion, and providing increased opportunities for success (Mastropieri and Scruggs, 2000). Although this is just one example of catering for the individual needs of a child, it clearly demonstrates that like the plants and animals in the rainforest, individual students have different needs that require specific adaptations in order for them to reach their potential. Therefore, as a future teacher, I believe it is important to respect and cater for the individual needs of children by recognising the strengths and needs of all students, and subsequently adapting the curriculum, the classroom organisation, and teaching approaches, so that all students' unique gifts and strengths are developed.

Brad – a weather forecaster and a teacher in an inclusive classroom

It is the role of a weather forecaster to provide information to the public on the daily temperatures, long range forecast, tidal patterns, the rise and fall of the tides, and times of sunrise and sunset. Using these concepts, I have devised a table showing the correlation between the functions of a weather forecaster and a teacher in an inclusive classroom:

WEATHER FORECASTER	TEACHER'S EQUIVALENT
Daily Temperature-Maximum	Providing fun, enjoyable, positive learning experiences
Daily Temperature-Minimum	Curtail boredom
National Forecast	Catering for all students in the class – developing an <i>Inclusive Classroom</i>
Long Range Forecast	Programming – for a week, term, semester, year
Tide Information-Highs	Achievement of students in the classroom i.e. a student understands a concept, another gains recognition for work well done
Tide Information-Lows	The classroom and behaviour management roles of a teacher, being proactive to prevent “unsettled” weather
Sunrise	Work to be done before school – prepare lessons, photocopy work, duty, meetings, etc
Sunset	Work to be done after school – reflect on the day, mark, collaborate, report, etc

Some Issues Related to Developing Metaphors of Teaching

This paper describes how the special education/educational psychology team has incorporated the notion of metaphors into our teaching of EDST 280. We have provided some examples from our pre-service teacher education students' work and described the process we used to encourage the development of personally meaningful metaphors. That is, the lecture presentation serves to inspire our students and to illustrate through our own metaphors the potential of these literary devices for guiding professional practice. Similarly, the online forum discussion allows our students to share their understandings of metaphors, as does the student-led seminar. During the unit, we support our students in the process of developing their metaphors through informal discussion and clarification of the assessment tasks.

As a group of educators, team-teaching in a core unit, we have found considerable value in terms of our own professional development in sharing our educational life histories and the varied metaphors that have guided our journeys as teachers. From our experiences, we agree that metaphors are a useful “tool for social emotional and cognitive development” (Fraser, 2000, p.6), that is “vitaly important ... to the critical reflection on pedagogy in which teachers ought to be engaged” (Woods, Dias and Ellis, 1997, p.6).

In our work with pre-service teachers, several issues related to metaphors of teaching have arisen. Although there are many possible ways of making sense of our experiences, for the purposes of this paper, we have elected to consider, as does Carlson (2001, p 46), “how metaphor can enhance meaning and engagement for pre-service teachers”. Thus, the subheadings of *Task Engagement* and *Personal Meaning* will be used to organise the following discussion of some issues that have emerged related to developing of pre-service teachers’ metaphors of teaching.

Task Engagement

The development of individual metaphors "requires flexibility of thinking and cognitive fluency ... [and] can tap emotions" (Fraser, 2000, p.2). The emotional engagement of the student with the issues associated with teaching is considered one of the positive features of metaphor tasks. The level of engagement of most students with the task of creating a metaphor is evident in this sample quote taken from the online forum.

I was like many who had goose bumps. The lecture brought a whole new view on metaphors. After the lecture I believe that a metaphor is a way of reflecting our teaching practices. Metaphors allow us to organise thinking. My metaphor for the first paper was CRAP. It was written as though I had no control but everyone one around me had the control. I think a metaphor can't be wrong or right, but an individual must be able to feel passionate about. It must have personal meaning.

Beginning the process with telling and writing educational life histories allowed the students to "capture the richness and indeterminacy" of their experiences through their stories (Carter, 1993, p.5). These stories became the basis for developing a personal metaphor that was well grounded in the complexity of personal experience. Such intertwining of personal and professional journeys may reduce the resistance of pre-service teachers to engaging with reflective thinking (Sumsion, 1997). As Fraser (2000), found in using metaphors with children, they can be a vehicle through which individuals “can reveal feelings and thoughts in a relatively safe way” and “develop intrapersonal intelligence (knowing oneself) but not lose face in the public domain” (p.5). This was also our experience with pre-service teachers in our unit. Metaphor allowed students to acknowledge and accept as valid feelings about their learning experiences and use them to inform the development of a vision of themselves as teachers.

The final metaphor task also fostered task engagement because there were a range of acceptable ways of responding to its requirements. Many students used visual representations to support the explanation of their metaphors. Diagrams, illustrations, storyboards, cartoons, flow charts, and mind maps were submitted as part the final Personal Metaphor Papers. Memorable examples came from a student who drew the

hiking boots and the climbing equipment that were vital to her metaphor, and from a student who constructed a board game based on the idea of a road trip. This student illustrated her metaphor using a network of roadways and traffic hazards to represent the challenges encountered on the road to becoming a teacher. Another student effectively colour-coded a concept map to link her life experiences with her vision of teaching. Students' engagement with the task of developing a metaphor through the use of drawing has been previously identified by Black and Halliwell (2000) as evidence of "bringing to light nuances and ambivalences in teaching identities that might otherwise remain hidden" (p.105).

The assessment tasks related to pre-service teachers' development of metaphors were not static academic writing tasks. They were tasks that had no one "right" response. The tasks required students to attend to feedback from lecturers on their first assignment and to revisit the development of their metaphor of teaching throughout a lecture, online forum, and seminar presentation. In fact, the process we set up to support students allowed them to express developing, not yet fully clarified metaphors in a variety of modes and to discuss ideas as they emerged. In the following excerpt from his final paper, Brad illustrates that the metaphor task was very much on his mind throughout EDST 280 and that he did indeed engage with the search for an appropriate metaphor of teaching.

Today is the 200th day since the submission of the original metaphor paper. During this time approximately 17 280 000 seconds have elapsed. Throughout these 17 million seconds, I have been searching for a metaphor to describe my aspirations/ambitions/dreams/nightmares/thoughts/ideas/ideals/experiences and perceptions of teaching. Alas, each refinement/improvement/change I make restricts what I can develop for my metaphor. Hence, after experiencing three seasons, three weeks of prac and 17 280 000 seconds, I conclude that my metaphor is:

Teachers are like weather forecasters:

Everyone relies on them, and when they deliver the goods, everyone is happy.

Personal Meaning

Although in the end Brad stayed with the same metaphor for his final paper that he used in his first assignment, many students found that their conceptions about metaphors changed over the course of the unit. These students produced a metaphor for the purpose of the first assignment but then found it no longer fulfilled their vision in terms of the second assignment. This change or evolution of metaphors can reflect a difference in how pre-service teachers conceive of teaching. Bullough and Stokes (1994) discuss this issue at length, and consider it to be a positively associated with pre-service teachers' professional growth and search for personal meaning.

In the lecture presentation, two members of the teaching team illustrated how their metaphors have changed over time. The following excerpts are taken from the EDST 280 online forum. They powerfully illustrate how some students engaged with the search for personally meaningful metaphors.

My original metaphor, "it's not the colour of the balloon that makes it go up, it's what's inside", is still close to my heart. But I have realised that my metaphor can be, and should be, straight from my heart, and should express my deepest feelings and explore the reason I have chosen to lead this campaign in teaching and learning. I

have decided to change my metaphor after hearing John's metaphor. Now my life is a garden, and I am the gardener.

In the first submission, I enjoyed playing around with the idea. However, now I see its importance. It is not just an idea to get me good grades at university. It is a way of thinking and guides my life. I still think my metaphor is appropriate to how I feel, but now it has more meaning. To be honest, while I was prac. teaching I didn't really think of my metaphor in relation to teaching. I did think about it when John mentioned it on the forum, but more as a piece of compulsory writing to pass the unit. Now I understand that every single day I should have taken that metaphor into the classroom with me.

Another issue associated with the importance of developing personally meaningful metaphors is related to the power of the metaphor to conserve. Some students felt that a meaningful and memorable metaphor would enable them to defend their beliefs and university-based knowledge in school contexts where their beliefs and knowledge would, inevitably, be challenged. Several students commented on experiences of conflicts that arose between the 'real world' of practising teachers and classrooms and the knowledge and experience of pre-service teachers. In the face of these conflicts and challenges, metaphors which encapsulate some of the complexity of personal beliefs and which can be readily articulated may serve as tools for conserving students' carefully developed beliefs and understandings. Reflecting this need for a defensive tool, one student wrote: "When things get tough and we feel that our ideals are being challenged or attacked ... we will have that metaphor paper to look on back on."

The thoughts and actions of beginning teachers are significantly influenced by their early interpretations of what it means to be a practising teacher (Bromme and Tillema, 1995; Ethell and McMeniman, 2000). These interpretations, in turn, are influenced by factors such as their own experiences as students at school and university, their developing beliefs about themselves as individuals and professional educators, and by engagement in the process of teacher education.

In the second year of a teacher education program, however, pre-service teachers are still at an early stage in the process of connecting these influences and creating an organising schema for teaching. Pre-service teachers engaging in the EDST 280 metaphor task are beginning to articulate their vision of themselves as teachers, a vision which includes useful knowledge, productive and passionate attitudes and beliefs about teaching and learning. As their metaphors are subsequently developed and consolidated over years of teacher preparation they become more robust. In the initial years of teaching, then, they can be used by the beginning teacher as a defence against the risk, as one student explained, of losing her passion "in the mundane routine of coffee cups, staff meetings, and regurgitated suggestions". The value of the metaphor to conserve knowledge, attitudes, and beliefs at a time when they are most vulnerable, should not be underestimated.

Conclusions

The development of personally meaningful metaphors is a challenging task for pre-service teachers. One of the purposes of our use of metaphors in EDST 280 was to encourage critical self-reflection. To do this we designed a set of experiences and assessment tasks which scaffold student exploration of their own educational life

histories and personal metaphors of teaching. Although the metaphors from the students vary in content and complexity, we believe metaphor to be a useful vehicle to shape and guide students' emerging personal and practical knowledge.

As a group of educators and researchers, we are interested in future systematic research that builds on our experience with metaphors of teaching as described in this paper. Future research could follow the development of pre-service teachers' metaphors over time as they complete their studies and enter the classroom as teachers. It would also be illuminating to analyse students' metaphor papers in terms of the complexity and relatedness of ideas presented using some theoretical construct such as the SOLO taxonomy (Biggs and Collis, 1982). We would also be interested in comparing pre-service teachers' development of metaphors with some other measures of attributes such as attitudes to disability and self-concept. Over the next few years, we anticipate exploring this strand of our teaching learning program more rigorously and plan to link our research to the work of researchers like Bullough (1992), Carlson (2001), and Grady, Fisher and Fraser (1996).

To conclude on an inspiring note, the opportunity to “understand connections among life experiences and professional dilemmas” (Black and Halliwell, 2000, p.112) was presented to pre-service teachers with a view to encouraging their self-reflection. It is clear from the following quote that some students have enthusiastically engaged with the metaphor tasks and are likely to continue to reflect and make personal meaning of their learning throughout their teacher education program. The challenge articulated by the EDST 280 student quoted below, is relevant to all of us who call ourselves “teachers”.

I then realised that your personal metaphor ... is at the core of your existence, your driving force. ... I have decided to reshape my metaphor into something that I can live by, something that is so close to my heart that it hurts. This is the challenge.

References

- Anello, M, Gandolf, C., Scott, S., and Unser, V. 1998. *To teach is to touch lives*. White Plains, New York: Peter Pauper Press.
- Biggs, J. B., and Collis, K. F. 1982. *Evaluating the quality of learning: The SOLO taxonomy (Structure of the Observed Learning Outcome)*. New York: Academic Press.
- Black, A. and Halliwell, G. 2000. Accessing practical knowledge: How? why? *Teaching and Teacher Education*, 16(1):103-115.
- Bromme, R., & Tillema, H. 1995. Fusing experience and theory: The structure of professional knowledge. *Learning and Instruction*, 5:261-267.
- Bullough, R.V., Jr. 1994. Beginning teacher curriculum decision making, personal teaching metaphors, and teacher education. *Teaching and Teacher Education*, 8(3): 239-252.
- Bullough, R.V., Jr, and Stokes, D.K. 1994. Analysing personal teaching metaphors in pre-service teacher education as a means for encouraging professional development. *American Educational Research Journal*, 31(1):197-224.

- Carlson, T.B. 2001. Using metaphors to enhance reflectiveness among pre-service teachers. *Journal of Physical Education, Recreation and Dance*, 72(1):49-53.
- Carter, K. 1993. The Place of Story in the Study of Teaching and Teacher Education. *Educational Researcher*, 22(1):5-12.
- Ethell, R. G., & McMeniman, M. M. 2000. Unlocking the knowledge in action of an expert practitioner. *Journal of Teacher Education*, 51(2):87-101.
- Fraser, D. 2000. Sin, Hope and Optimism in Children's Metaphors. Article fre000393. Retrieved January 13, 2002, from <http://aare.au/00pap/fra00393.htm>
- Foreman, P. 2001. *Integration and inclusion in action*. Sydney: Harcourt
- Glucksberg, S., Keysar, B., & McGlone, M. 1992. Metaphor understanding and accessing conceptual schema: Reply to Gibbs (1992). *Psychological Review*, 99(3):578-581.
- Grady, N. Fisher, D. Fraser, B. 1996. Images of school through metaphor development and validation of a questionnaire. *Journal of Educational Administration*, 34(2):41-53.
- Graham, L. Richmond, C. & Paterson, D. 1999. *Metaphors of Teaching: An Invitation to Risk*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal Canada, April.
- Grebenstein, E. 1995. Once the shouting dies down. *Educational Leadership*, 52(4):87.
- Hagstrom, D. Hubbard, R. Hurtig, C. Mortola, P. Ostrow, J and White, V. 2000. Teaching is like ...?: Writing a metaphor for their work can focus and energize educators. *Educational Leadership*, May: 235-239.
- Mastropieri, M., and Scruggs, T. 2000. *The inclusive classroom: Strategies for effective instruction*. Upper Saddle River, New Jersey: Merrill
- Stengle, B.S. (1997). Transitive/Intransitive: The knowledge of reflective practice. *Teaching Education*, 8(2), 29-37.
- Sumsion, J. 1997. *Promoting student teachers' reflection: A realistic goal?* Paper presented at the Australian Association for Research in Education Conference, Brisbane.
- Turner, S. 2000. Caretaking of children's souls: Teaching the deep song, *Young Children*, 55(1):31-33.
- Wong, E.D. 1993. Understanding the generative capacity of analogies as a tool for explanation. *Journal of Research in Science Teaching*, 30:1259-1272.
- Woods, C. Dias, P. and Ellis, V. 1997. *The English Classroom as an Atelier: A place for promoting personal, passionate and critical cognition*. Based on a paper presented at the Biennial Conference of the International Federation for the Teaching of English, New York, NY, July 10-14. ED442114.