Teacher Cognition:
The effects of prior experience on becoming a teacher

by

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ABSTRACT

Teachers are unique when compared to most other professionals, as pre-service teachers spend more than a decade observing teachers in practice before entering their own professional training. This study investigated teacher candidates at the earliest point of their teacher training, entry into a teacher certification program, at the University of Sydney and University of Auckland in 2005. Specifically, this study sought to address how prior experiences informed the teacher role identity of male primary, female secondary and non-traditional student teachers. These three teacher candidate groups emerged from a previous study (Sexton, 2002) which explored post-graduate teacher candidates’ beliefs with the most vivid and articulate prior experiences.

The study used a mixed-model research design to explore the research question, How do pre-service teacher candidates interpret prior teacher experiences as to the type of teacher they do and do not want to become? 354 entry-level teacher candidates were surveyed using both closed item and open-ended responses. From these participants, 35 were then interviewed before their course commencement and then again after their first teaching practicum.

The study showed that there were differences as to how prior teachers informed the teacher role identity of entry-level student teachers. Male primary candidates were more influenced by their positive primary experiences of role model teachers. Female secondary participants remembered those secondary teachers who encouraged the development of critical thinking and they now wish to emulate this in their practice. Non-traditional student teachers remembered a wider range of educational experiences and entered into their teaching program to make a difference in both their and their students’ lives.
The study highlights how in-service teachers play an important role in not only who will become teachers but also what subjects and school level future teachers will teach.
ACKNOWLEDGEMENTS

This study has taken not only me the past three years to complete but also the many helpful and patient people who saw me through to its completion. Most notably and by far the greatest help has come from my primary supervisor Associate Professor Robyn Ewing. I would not have been able to complete this without her going well beyond what a supervisor would normally do in assistance. I am also grateful to Dr Jacqueline Manuel for her guidance and supervision throughout this process.

This research study approached entry-level student teachers at both The University of Sydney and The University of Auckland. I would like to acknowledge the help and support of both Dr Janette Bobis and Dr David Reid for access to students at The University of Sydney. I am also grateful to Pam Millward, Fiona Els, Aimee Richer and Ngaire Hoben of The University of Auckland for time and access to their students.

The completion of this thesis was done with editing help from both Dr Peter McGee and Mark Thomson who provided eyes to those mistakes I could just no longer see.

Finally, I would never have been able to sustain the long hours and long weekends required to complete this thesis and maintain a classroom of 29 ten-year olds if it was not for my partner. Mark kept me going when I had had enough, gave me the space and time needed to keep going and put up with more than one rant and rave.

To the 354 student teachers just beginning their journey in teacher education, thank you for your participation. But heartfelt thanks go to the 35 who agreed to be interviewed (not once but twice) to allow me a window into your beliefs and ideas about teaching and how your saw yourselves as teachers; thank you.
PURPOSE OF THE STUDY

When I was a pre-service teacher, I was in a unique position compared with most other professional candidates such as doctors, lawyers and engineers. I came to my professional pre-service education after having spent thousands of hours in first hand observation of what teachers did in the classroom. It was this time spent in the classroom that provided me with my own ideas and beliefs about what I understood the role of a teacher to be. I strongly believe I have formed my opinions about what constitutes ‘good’ and ‘bad’ teachers based on those prior teacher examples from my own personal student history.

As part of my own teacher education program in 2001, I was required to reflect upon and then report back to my peers what I viewed my role as a teacher would be. To do this, I sat down and thought about what it was that I wanted to do in the classroom and why. I was able to remember explicitly three prior teachers: my Year 7 General Science teacher, my Year 11 Honours English teacher and my Year 12 Advanced Placement English teacher.

Mr Baker (all names have been changed to protect their identity) as my Year 7 General Science teacher was able to draw each and every student into the subject. He would explain and discuss topics in ways that engaged not only me as a student but also treated me as a colleague in the discovery of new knowledge. He never talked down to me; it was always a collaborative discussion. He brought into the classroom current topics and external resources beyond the set curriculum that were of topical interest to us at the time but also furthered our understanding of science and the world around us. I have never worked as hard as I did in Miss Gosford’s Year 11 Honours English class, but I have also never had as much fun in any class since. She was able to push us to excel beyond our own perceived limitations and gave us the desire to try harder. We were given opportunities to express ourselves in multiple genres and mediums. She taught me that trying was often more important than succeeding. Mrs Field as my Year 12 Advanced
Placement teacher taught me that real learning comes from being able to teach others. We were placed in cohorts to become the ‘experts’ in one genre of literature. It was when ‘teaching’ our classmates that we really able to understand what it was we were trying to learn.

These three teachers are the ones I consider to have been my best teachers and provided me with what I still believe to be the most positive examples of what it means to be a teacher. In reflecting upon my own classroom practice, I can see direct influences from the way these three teachers taught me to the way I try and teach. I have explicitly asked myself numerous times: How would they have handled this situation?; What would they have done to reach this student?; or How did they demonstrate their enthusiasm for the subject so as to better engage and inspire me as a student?

The present study is an exploration of this topic and explores the relationship between pre-service teachers and their own personal histories involving prior teachers. In researching the topic of teachers’ cognition, I discovered that this was part of a well-researched field. How pre-service teachers see themselves based on their own prior teacher experiences was raised and highlighted as an important topic to be considered for future research over a decade ago (Brookhart & Freedman, 1992) and is particularly relevant to this present study.

As part of the requirements for the Honours degree of Master of Teaching (Primary Education) at the University of Sydney, I undertook a research study into this area (Sexton, 2002). The study was an exploration of how pre-service teachers interpreted prior teacher experiences in reflecting on the type of teacher they did and did not want to become. This 2002 study was conducted with participants from one cohort entering the Master of Teaching degree at The University of Sydney. While this was only an exploratory study it did highlight three teacher subpopulations of interest: male primary, female secondary and non-traditional teacher candidates, defined as those students who decided upon teaching after being in other careers or after being full-time house parents for a portion of their lives (Powell, 1992, p. 227). The
study found that these three teacher candidate categories brought with them very clear and distinct images of their prior teachers. These findings lead directly to the present study, which seeks to further explore these three groups of pre-service teachers. Were the results from the previous study an anomaly? Do they represent a possible commonality across the Australasian teacher populations of male primary, female secondary and non-traditional teacher candidates?

The present study is presented in seven chapters. Chapter 1 presents a review of the literature in relation to pre-service teacher attributes, beliefs and preconceptions and sets this present study in the current educational context. Chapter 2 presents the rationale behind this present study’s mixed-model research design of questionnaire and interview methodologies. In Chapter 3 both quantitative and qualitative results are highlighted. These findings are then explored in the next three chapters in reference to the three target populations of Male Primary candidates in Chapter 4, Female Secondary in Chapter 5, Non-Traditional student teachers in Chapter 6. Finally, in Chapter 7 conclusions that may be drawn from the present study are considered along with the significance and implications for future research in this important area.
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LIST OF DEFINITIONS

The following definitions are listed in order of appearance as they occur in the thesis:

Beliefs: a way to describe a relationship between a task, an action, an event, or another person and an attitude of a person toward it (Eisenhart, Shrum, Harding & Cuthbert, 1988, p. 53).

Teachers’ beliefs: are those beliefs that relate to what teachers do in the classroom with students and materials (Eisenhart et al., 1988, p. 59).

Teachers’ beliefs (refined definition): pre- or in-service teachers’ self-reflections; beliefs and knowledge about teaching, students and content; and awareness of problem-solving strategies endemic to classroom teaching (Kagan, 1990, p. 421).

Teachers’ cognition: pre- or in-service teachers’ self-reflections; beliefs and knowledge about teaching, students and content; and awareness of problem-solving strategies endemic to classroom teaching (Kagan, 1990, p. 421).

Pre-service teachers: those students enrolled in their first teacher preparation course (Brookhart & Freedman, 1992, p. 37).

Plot: a type of conceptual scheme by which a contextual meaning of independent events can be displayed (Polkinghorne, 1995, pp. 6-7).

Stimulated recall interviews: a technique used to aid a participant’s recall of his or her thought processes at the time (Calderhead, 1981, p. 212).


Self as teacher: the teacher one imagines one self to be (Frappon & MacGillivary, 1996, p. 31).

Critical incidents: those well-remembered events that a student observes in a school situation and for his/her own reasons considers to be especially salient or memorable (Carter, 1994, p. 236).

Mixed model studies: those studies that are products of the pragmatist paradigm and that combine the quantitative and qualitative approaches within different phases of the research process (Tashakkori & Teddlie, 1998, p. 19).

Referents: those beliefs that act as a guide to the actions of an individual (Tobin & Tippins, 1998, p. 716).


Recollections: those experiences that are less the reproduction of the past than its synoptic understanding from the vantage point of the present (Freeman, Csikszentmihalyi & Lawson, 1986, p. 168).
Candidates: for the purpose of the present study those students who successfully enrol into a teacher education programme.

Participants: for the purpose of the present study those research study candidates who voluntarily complete the questionnaire.

Respondents: for the purpose of the present study those research study participants who voluntarily agree to be interviewed.

Traditional students: those students who are either undergraduates or have recently graduated and decided upon teaching as a profession (Powell, 1992, p. 227).

Non-traditional students: those students who decided upon teaching after being in other careers or after being full-time house parents for a portion of their lives (Powell, 1992, p. 227).

Self-esteem: the belief and confidence in one’s own ability (Brookhart & Freedman, 1992, p. 48).

Very high self-esteem: defined as the highest ten percent of the range 1.0 – 1.3.

High self-esteem: defined as the second highest ten percent of the range 1.31 – 1.6.

Medium self-esteem: the range 1.61 – 2.5.

Low self-esteem: the range 2.51 – 4.0.

Statistical deviations: defined as more than 5 % difference between compared populations.
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