RESEARCH IN
Comparative & International Education

Teacher Induction in Australia: a sample of what's really happening

SUE HUDSON, DENISE BEUTEL & PETER HUDSON
Queensland University of Technology, Brisbane, Australia

ABSTRACT Retention rates and stress levels of beginning teachers are of concern. Well-planned induction programs can assist beginning teachers to make the transition successfully into the profession, which may increase retention rates. This qualitative, year-long study aims to explore and describe the induction experiences of eight beginning teachers as they negotiated their first year of teaching. Data gathered through interviews and emails indicated that these teachers required further development on: catering for individual differences, assessing in terms of outcomes, relating to parents, relating to the wider community, and understanding school policies; however, relating to students and understanding legal responsibilities and duty of care were not issues. At the conclusion of their first year only one beginning teacher was assisted by a mentor (veteran teacher) on whole-school programming, and planning for improving teaching with opportunities to visit other classrooms. This was also the only beginning teacher who received a reduced workload in order to meet with the mentor to discuss pedagogical developments. The inadequate support provided to beginning teachers in this study highlights the need for principals and school staff to reassess induction processes, which includes providing time, funding, mentoring support and clear guidelines for a quality induction program.

Many experienced classroom practitioners reflect upon their first year as one of the most challenging: where the transition from preservice teacher to classroom practitioner is made. Beginning teachers who are successful in attaining a teaching position are usually expected to assume the same responsibilities as their veteran colleagues and are often assigned to the most difficult teaching placements (Carter & Francis, 2001). It is not unusual for beginning teachers to be employed in rural or remote locations far from their family network or the area in which they trained. In some instances, beginning teachers do not survive this transitional stage and decide to leave the profession after investing considerable time and money in completing a 4-year degree (Marsh, 2004).

In Australia, many experienced teachers are reaching retirement age or are making career choices that remove them from the profession (Ryan, 2002). It is estimated that the need for teachers in Australia will increase in the next 10 years (Green & Reid, 2004). This trend is not unique to Australia. Similarly, in the next decade it is estimated that in the United States, public schools will need to recruit more than two million teachers to overcome the retirement of the 'baby boomers' (Villiani & Danielson, 2001). The New Teacher Support Initiative (National Education Association, 2002) in the USA claims that recruiting the new teachers needed will be a challenge, but retaining them will also be a challenge as only 50% of new teachers today are choosing to stay in the profession beyond 5 years. The predicted teacher shortage and attrition rate from education systems have implications for employers of beginning teachers (Marsh, 2004). It is essential that well-monitored teacher induction programs support beginning teachers as they make the transition from preservice teacher to beginning classroom practitioner (Ramsey, 2000).

Jackson & Davis (2000) purport that effective beginning teacher induction is as important as an effective preservice teacher education program. Unlike other professions such as medicine, beginning teachers are placed into classrooms on their own and are expected from day one to undertake the duties and operations of a more experienced teacher (Ramsey, 2000). In Australia, reports on teacher education have called for reduced face-to-face teaching loads for beginning teachers and for on-going support for the first 12 months of professional practice (House of Representatives Standing Committee on Education and Vocational Training, 2007). Quality teacher induction programs are noted to greatly assist the beginning teacher process (Ewing & Smith, 2003; Peeler & Jane, 2003; H. Wong et al, 2005).

There are many models for the induction of beginning teachers (H. Wong et al, 2005). Yet, any Australian induction model to retain teachers needs to consider the aging teaching population, gender and subject specialisation, community cultural activities, physical distances, addressing employment opportunities for spouses and their adolescent children, suitable experienced teaching staff, and time allocations (Lyons et al, 2006). Wong (2005) claims the process of induction is a 'highly organised and comprehensive form of staff development, involving many people and many components' (p. 379). Wong further purports that the beginning teacher induction process should be coherent, sustained and focused upon students' learning with support being provided for the first 2 to 5 years of a teacher's career.

Countries such as Switzerland, France, New Zealand, Japan, and China have recognised the importance of beginning teacher induction and have implemented well-funded, well-monitored induction programs that offer support to all beginning teachers for at least the first 2 years of teaching (Wong, 2005). Throughout Australia there is wide variation in the quality of programs and support for beginning teachers (House of Representatives Standing Committee on Education and Vocational Training, 2007) and there is particular need in rural and remote areas for inducting new teachers (Lyons et al, 2006). Education authorities in the various states have specific policies and procedures for inducting new teachers into the profession. However, across Australia, including rural and remote areas, support for beginning teachers is invariably in the form of websites with reference to school-based induction programs developed and implemented at the discretion of school principals (New South Wales Department of Education and Training, 2002; Lyons et al, 2006).

Induction of beginning teachers is generally noted as a school responsibility (New South Wales Department of Education and Training, 2002). Nevertheless, the New South Wales Department of Education and Training (NSW DET) has a website for new teachers but it mainly contains information relating to the professional and legal responsibilities of teachers and their conditions of employment with some curriculum resources (New South Wales Department of Education and Training, 2002). Additional information on the DET website is directed towards schools with a set of guidelines for supporting the induction of new teachers and suggestions that school-based induction programs should involve structured supervision, collegial support, mentoring and professional networking (New South Wales Department of Education and Training, 2002). Recently, the NSW DET has introduced, as part of the induction process, a formal mentoring program in areas where large numbers of beginning teachers are placed (House of Representatives Standing Committee on Education and Vocational Training, 2007). However, the planning and implementation of these programs is not centrally monitored but is largely the responsibility of principals. As such, there may be considerable variation in the ways in which these programs provide support for beginning teachers (e.g. Lyons et al, 2006).

In Queensland, the Department of Education, Training and the Arts (2006) has produced a 60-page *Flying Start Induction Toolkit*, that is distributed to permanent and temporary beginning teachers. The toolkit is supported by online resources and other professional links for beginning teachers. Other supportive networks have been organised either as part of formal institutional arrangements or as non-institutional initiatives. To illustrate, the Joint Council of Queensland Teachers' Associations (JCQTA) (2007) aimed to support various councils (e.g. Science Teachers Association Council) to advance their own networks in designated fields. JCQTA established a mentoring program that drew together all the Queensland teaching councils for supporting preservice teachers, beginning teachers, and teachers. This association promoted leadership within schools as a way to advance teaching and learning programs. In NSW, school principals in Queensland will be provided with information to assist in the development of their own school-

based induction programs. Similar support for beginning teachers is evident in other states; however, there is little or no mention of how these programs will be monitored or funded to ensure all beginning teachers are provided with an on-going, quality induction program.

Mentoring is an important component of the beginning teacher induction process (P. Wong et al, 2005). Indeed, the terms 'induction' and 'mentoring' are often used interchangeably, hence teacher employment bodies may profess to have quality induction programs because beginning teachers are offered the assistance of a more experienced practitioner noted to be a mentor. It is well recognised that good mentors are important (Ryan & Cooper, 2000) and that quality mentoring programs can be significant in shaping a beginning teacher's practice (Cochran-Smith, 1991; Staton & Hunt, 1992; Ryan & Cooper, 2000); regardless of this, mentors must be trained to ensure they provide support that is linked to the process of induction (Wong, 2005). Effective mentoring models (e.g. Hudson, 2004a, b, 2007) provide a structure for mentors and mentees that considers theoretical underpinnings and practical applications. Furthermore, the support should be evaluated, on-going and appropriate to the needs of the beginning teacher.

Aim of this Study

It is evident from the literature that producing and retaining quality teachers requires a commitment on behalf of those who employ beginning teachers. For teacher employers, it is essential that all beginning teachers have the opportunity to be part of quality induction programs that are comprehensive, coherent, sustained and are directly linked to their needs. This study aimed to explore and describe the induction experiences of eight beginning teachers as they negotiated their first year of teaching. The participants of this study attended the same regional university and completed a 4-year Bachelor of Education (Primary) degree. At the completion of their degree the preservice teachers were employed in a range of contexts across two different states (NSW and Queensland).

Data Collection and Analysis

This interpretive study sought to understand human behaviour through the perspective of the respondents and employed qualitative methods of data collection (Neuman, 2000; Best & Kahn, 2003). Data for this small-scale study were collected over a 1-year period. This investigation included eight beginning teachers who completed a Bachelor of Education (Primary) degree at the same regional university. The eight beginning teachers involved in this investigation were selected from those members of the final-year cohort who indicated they were successful in attaining full-time employment or fixed-term employment at the completion of their 4-year degree. The beginning teachers were selected using simple random sampling as it was hoped that those selected would 'reflect the distribution of relevant variables found in the target population' (Hittleman & Simon, 2002, p. 94). The participants in this study represented 10% of the total cohort that completed the Bachelor of Education in that year.

As a result of using simple random sampling, a cohort of beginning teachers was selected for the study that had been employed in a variety of school settings in two different states. Participants were of varying ages. It should be noted that although only 20% of the total cohort were males, the random sampling process produced an equal number of males ($n = 4$) and females ($n = 4$) for this investigation. Table I provides an overview of the age, gender and school contexts in which the beginning teachers were employed.

Data were collected using information gathered from emails, telephone interviews and a questionnaire. The beginning teachers were asked open-ended questions as this allowed for an unlimited number of possible answers and the inclusion of the unexpected (Neuman, 2000). Each of the beginning teachers was contacted via email at the beginning of term one to gather data regarding the school contexts and to obtain initial data in regards to their induction experiences. They were then contacted again via email at the end of each term to discuss their progress and document the induction processes provided by their school. Phone interviews were conducted and a questionnaire administered towards the end of term four. The phone interviews allowed for a more extensive discussion in a relaxed environment that was conducive to eliciting more frank and

honest responses (Hittleman & Simon, 2006). The questionnaire provided an opportunity to elicit additional data (Neuman, 2000) that were directly related to the induction of these beginning teachers.

Participant	Age	Gender	Context: gov/non-gov	School description
1	> 40	Male	Gov	Rural/town
2	22-29	Female	Gov	Rural/town
3	30-39	Male	Gov	Rural/isolated
4	22-29	Female	Gov	Rural/town
5	22-29	Male	Gov	City suburbs
6	30-39	Female	Non-gov	Rural/town
7	22-29	Male	Gov	Rural/town
8	> 40	Female	Gov	Rural/town

Table I. Age and sex of beginning teachers and summary of school contexts.

The open-ended email questions, the phone interviews and the questionnaire related to the induction processes experienced by the beginning teachers and were based upon The Public Education Network's (2004, cited in Wong, 2005) attributes of a quality induction program. As Wong (2005) purports, the induction process should be comprehensive, coherent, sustained and focused upon students' learning. So, by asking the same or similar questions each term, it allowed the preservice teachers to add information and document the induction process over the entire year. The responses gathered each term from each participant were analysed by annotating emerging themes (Hittleman & Simon, 2006) and comparing the differences and similarities in the experiences of the eight beginning teachers.

Results and Discussion

Data were gathered at the beginning of term one. At this stage, the beginning teachers had just been appointed to their schools and had been allocated to their respective classes. All eight beginning teachers noted in their emails that they felt apprehensive about teaching but seemed excited at having their own class. The participants commented that they had areas of concern as a beginning teacher and were hopeful of gaining assistance from their colleagues at their schools. Table II summarises initial areas of concern in which the beginning teachers felt they may require assistance.

As can be noted in Table II, the eight beginning teachers felt they may require assistance in 'Teaching to cater to individual difference', 'Assessing in terms of outcomes', 'Relating to parents', 'Relating to the wider community' and 'Understanding school policies'. However, most of the students commented they would not require assistance in 'Relating to students' and 'Understanding legal responsibilities and duty of care'. At this stage, six participants noted they were satisfied with their teaching placements and positive about the way they had been welcomed to their school. A typical positive response was noted by Participant 7:

> I arrived in the town on the Thursday before school started and I contacted the principal to introduce myself. He invited me to a welcome function for all the new staff on Monday at the school. I went along and all the staff attended. They seem like a great bunch. I got a school tour and was shown my classroom.

However, two participants were not so positive about their initial encounter with their schools. For instance, Participant 4 commented:

> I rang my principal the week before school started. He said to come on the first pupil-free day. I arrived at the school and was introduced to the staff. There was a staff meeting in the morning and I really did not understand most of what they were talking about. The Deputy then showed me to my classroom and stated that I could leave at 3 pm on that day. I had questions but felt too scared to ask anyone

Participant 4's response may be indicative of beginning teachers as they commence a new position. Induction required establishing a friendly relationship to dispel potential fears, and a time to discuss Participant 4's questions, particularly at the end of the first day when teaching issues may have come to the fore. The initial six positive responses may have been related to the beginning teachers' adulation at being successful at attaining employment. Yet, by the end of term one, there were two positive responses and six negative responses. Participant 5 was very positive about the induction he received at his school, which may be attributed to establishing 'talk time' with the mentor to discuss policies, planning, assessment, and other issues of concern:

> I feel very happy with the induction arrangements at my school. I am team teaching with a very experienced teacher. I have allocated release time so I sit with my mentor and discuss any areas that may be of concern to me. I program with her and so far we have discussed school policies, assessment in terms of outcomes, classroom management, working with parents and effective ways of working with the varying needs of students in the class.

Areas of concern	Number of beginning teachers who noted this area
Planning and implementing a program	5
Managing a classroom	7
Organising a classroom	3
Employing a range of teaching strategies	3
Teaching to cater to individual difference	8
Incorporating ICTs into teaching	4
Teaching across the six key learning areas	4
Assessing terms of outcomes	8
Reporting in terms of outcomes	5
Relating to students	1
Reflection upon own practice	6
Relating to parents	8
Relating to fellow staff members	4
Relating to the wider community	8
Understanding school policies	8
Understanding legal responsibilities and duty of care	2
Understanding roles and for responsibilities for the first year of teaching	3

Table II. Initial areas of concern.

Six beginning teachers indicated they were disappointed with their induction experience. Some of these comments came as a result of not receiving feedback about their teaching performances as a reassurance about their progress in teaching. To illustrate, Participant 1 stated:

> Induction … I don't think my school has heard of that word. The welcome barbecue and the 'meet the parents' afternoon seems to be the extent of the induction process. I think everyone is just busy. I handed in my program in week 4 of this term. There was a positive comment at the end so all I can think is that they are happy with my progress.

Participant 3, who was placed in the isolated/rural context, noted no one was available to induct him as all the staff were new:

> Induction … what is that? Everyone at our school is new. Even the gardener is new. There is no one who can induct me … we are just muddling through together.

Beginning teachers can take up fixed-term appointments that may last 1 or more terms. These new teachers are in the same position as permanent beginning teachers, that is, new and uninitiated into the profession. There may be uncertainty about induction applicability for fixed-term appointments. Participant 8 noted:

> I am under the impression that as a 'fixed term' appointment that I don't qualify for induction. This has not been explained directly to me but I have not been approached at a school level or by the department.

By the end of term two the responses had become less detailed and many of the responses took several weeks to be returned via email. This may be an indication of an increased workload for these teachers with half-yearly reports due and possible parent–teacher interviews. Those who returned late emails apologised for their lateness, noting the demands of teaching as the cause. At this stage of the year, many of the participants seemed to understand their teaching context but did not feel supported within their school context. The beginning teachers were specifically asked about their relationships with their mentors. Six of the eight participants noted they had been allocated mentors but the relationships and styles of mentoring varied considerably among the group. Participant 2 commented:

> The Deputy Principal is my mentor. I feel quite reluctant to let him know when I am experiencing difficulty as I feel he will think I am failing.

However, Participant 5, who was teaching in a city suburban school, was again positive with his mentoring experience:

> The principal is my mentor but I can approach anyone at my school. They are so willing to help. I know I only have to ask.

Participant 4 stated:

> My mentor wants me to do everything her way. I am so frustrated. I know she has a great deal of experience but I think she believes everything I do is wrong. I would describe her as controlling rather than helpful.

At the end of term three, six of the beginning teachers noted they had attended a 2-day induction program for beginning teachers. All six participants noted they enjoyed the 2 days and gained from the experience. A typical comment came from Participant 2 who wrote:

> During this term I attended a two-day induction in-service for beginning teachers. It was great to speak with other beginning teachers and know that my feelings of self-doubt and the problems I was experiencing were the same as the others.

Participant 1 was also positive but recognised the induction program could have provided more ideas for the classroom:

> I really enjoyed the two-day induction program I attended this term. It was great to talk to other people in the same boat. I think the people who organised the program need to design it more so it meets the needs of the group. We talked about the Quality Teaching Framework and our professional identities. I don't think they realise that we did all that stuff at uni.

Participant 5 did not attend a 2-day induction program but had opportunities for other inservice courses. This may have been because he was well supported within his suburban school. He maintained his positive attitude towards his general induction into teaching and noted at the end of term three:

> I feel my school has done it [induction] well. I have attended in-service courses on a range of issues. I have been well supported by the staff and have been given assistance and direction by my mentor and the other staff at my school. I feel I have had input into my induction and the staff value my opinion.

At the end of term four the beginning teachers were interviewed by telephone and sent a questionnaire via email. The telephone interviews revealed that although five out of the eight felt they had 'survived' the year, only one beginning teacher felt they had been provided with a suitable ongoing induction experience. A typical response from Participant 4 suggested that schools should be funded so that well-planned induction programs can be provided for beginning teachers. Indeed, she felt teachers were too preoccupied with their own classes and duties to support her. Yet, she had a mentor when she indicated other colleagues as beginning teachers were not provided with a mentor. Nevertheless, a mentor needs to be constructive and exhibit personal attributes that instil positive attitudes for teaching. To illustrate:

> I have survived my first year of teaching and I am ecstatic. I love my class, I love teaching but there have been days when I have been close to giving it all away. How much effort would it have taken to provide some on-going support? Everyone at my school is lovely but they are busy. I have spoken to the staff and they have stated that schools needed to be funded so that the support beginning teachers require can be provided. I have spoken to some of my friends from uni and they did not even have a mentor. I found my mentor quite negative but at least I could speak with her if I had a problem. Something needs to be done to better support beginning teachers in their first year.

Participant 5 felt positive about his induction experience throughout the year, attributing his success in teaching to the staff that had supported him. He noted:

> I have had a fantastic year. The staff have been great. I think my induction into teaching has been well planned and maintained throughout the year. The parents have been very positive and the students have obtained great results. I think the year was a positive learning experience mainly due to the induction I received.

The final email sent at the end of term 4 asked the beginning teachers if they were satisfied with the induction they had received throughout the year and if the induction they had experienced met their needs. The end of the year highlighted that seven out of eight participants in this study were not satisfied with their induction and felt it did not meet their needs as beginning teachers. Participant 2 wrote:

> I would say I am not satisfied with my induction. I know everyone is busy but how much effort would it have taken to find the time to meet each week and ask 'how are you going, can I help?'. It would have been nice to be asked what would you like to know in your first year?

The questionnaire asked the beginning teachers to comment on the types of induction experiences they had experienced throughout the year and the school terms in which they were experienced. Table III summarises the results.

Induction activity	Number of participants who noted the activity	School terms in which they were noted
The beginning teacher was welcomed to the school and the context of the school outlined	5	Term 1
The instructional philosophy of the school was outlined	2	Term 1
Assistance was provided for long-term planning for improving teaching and learning	1	Term 1 & 2
Institutional support and commitment was provided incorporating administrator support and involvement	4	Term 1 Term 2
Input was provided from beginning and veteran teachers on whole-school program design and structure	1	Term 1 & 2
Beginning teachers were provided with opportunities to visit classrooms of more experienced teachers	1	Term 1
Meetings were held with more experienced teachers to provide assistance and guidance in aspects that are of concern	3	Term 1 & 2 Term 2
Beginning teachers were provided with opportunities to attend professional development courses for beginning teachers to build networks and support outside the school setting	7	Term 3
A carefully selected mentor was allocated who offered on-going support throughout the year	4	Term 1 Term 4
Reduced workload and release time were provided in order to meet with the mentor to discuss the development of the beginning teacher	1	Term 1, 2, 3 & 4
There was on-going discussion and assessment of the induction being received by the beginning teacher to ascertain the level of support	1	Term 1, 2, 3 & 4

Table III. Induction activities experienced by the beginning teachers.

Only one beginning teacher had been involved in all these induction activities and seven out of eight beginning teachers recorded that they had attended a beginning teacher conference in term 3. The initial contact with the school was fairly positive with over half the participants attending a welcome function at the school, yet throughout the year these participants' feelings of support varied.

Summary and Conclusion

Results indicated that the initial contact with schools and the way in which the participants were welcomed to the school met the needs of most of these beginning teachers. However, as the year progressed, the induction process experienced by the group differed significantly. At the conclusion of their first year only one beginning teacher was assisted by a mentor (experienced teacher) on whole-school programming and planning for improving teaching with opportunities to visit classrooms of more experienced teachers. This was also the only beginning teacher who received a reduced workload in order to meet with the mentor to discuss pedagogical practices and duties. Other beginning teachers who noted they had been allocated a mentor commented they were concerned about approaching their mentor or the mentor was 'busy' or 'controlling'. Indeed, at the conclusion of their first year of teaching only one beginning teacher was satisfied with the induction process.

The findings suggested that the beginning teachers welcomed opportunities to attend professional development to build networks, including support outside the school setting. Despite providing these opportunities to seven out of eight participants who attended professional development in term 3, professional development appeared as a one-off occurrence. In reality, these participants required on-going opportunities to be involved in school and district inservice courses to facilitate professional networking and knowledge about the education system. These beginning teachers recognised the importance of such services and were keen to be supported and guided by their more experienced colleagues. Evidence also suggested that the beginning teachers had individual needs requiring specialised information to support their first year of teaching.

In NSW in 2002, 39.7% of beginning teachers claimed they had participated in systemic programs with 42.2% attending district-organised programs (New South Wales Department of Education and Training, 2002, p. 12); yet there was little support offered by employment bodies or school personnel to the eight beginning teachers in this small-scale study. If employers, which include departments, districts and schools, are serious about teacher retention rates and quality teaching, then they need to consider induction models being implemented in countries such as Switzerland, France, New Zealand, Japan, and China (Wong, 2005). As stated by Ramsey (2000), 'Employers and the profession have a responsibility to provide high quality induction experiences. Beginning teachers have a right to expect them' (p. 22). In addition, mentoring models can provide further insight for mentors to be more effective in their induction processes. Without doubt, induction programs need to provide support at the school level for ensuring the smooth transition into the profession. This support needs to include training for school staff in the delivery of quality induction programs, mentor training, funding for professional development and reduced workloads for mentors and their mentees (beginning teachers). Furthermore, school induction programs need to be on-going, well monitored and tailored to meet the individual needs of the beginning teachers as it cannot be assumed they enter the profession with the same knowledge, skills and practices.

References

Best, J. & Kahn, J. (2003) *Research in Education*. Boston: Pearson.

Carter, M. & Francis, R. (2001) Mentoring and Beginning Teachers' Workplace Learning, *Asia-Pacific Journal of Teacher Education*, 29(3), 249-262. http://dx.doi.org/10.1080/13598660120091856

Cochran-Smith, M. (1991) Reinventing Student Teaching, *Journal of Teacher Education*, 42, 104-118. http://dx.doi.org/10.1177/002248719104200204

Department of Education, Training and the Arts (2006) Flying Start Induction Toolkit for Beginning Teachers. http://education.qld.gov.au/staff/development/docs/flying_start_toolkit.pdf (accessed 10 January 2008).

Ewing, R. & Smith, D. (2003) *Retaining Quality Beginning Teachers in the Profession*. http://education.waikato.ac.nz/research/files/etpc/files/2003v2n1art2.pdf

Green, B. & Reid, J. (2004) Teacher Education for Rural-Regional Sustainability: changing agendas, challenging futures, chasing chimeras, *Asia-Pacific Journal of Teacher Education*, 32(3), 167-235. http://dx.doi.org/10.1080/1359866042000295415

Hittleman, D. & Simon, A. (2002) *Interpreting Educational Research: an introduction for consumers of research*. Upper Saddle River: Pearson.

Hittleman, D. & Simon, A. (2006) *Interpreting Educational Research: an introduction for consumers of research*. 4th edn. Upper Saddle River: Pearson.

House of Representatives Standing Committee on Educational and Vocational Training (2007) *Top of the Class: report on the inquiry into teacher education*. Canberra: The Parliament of the Commonwealth of Australia. http://www.aph.gov.au/house/committee/evt/teachereduc/report/fullreport.pdf (accessed 6 May 2008).

Hudson, P. (2004a) Specific Mentoring: a theory and model for developing primary science teaching practices, *European Journal of Teacher Education*, 27(2), 139-146. http://dx.doi.org/10.1080/0261976042000223015

Hudson, P. (2004b) Toward Identifying Pedagogical Knowledge for Mentoring in Primary Science Teaching, *Journal of Science Education and Technology*, 13(2), 215-225. http://dx.doi.org/10.1023/B:JOST.0000031260.27725.da

Hudson, P. (2007) Examining Mentors' Practices for Enhancing Preservice Teachers' Pedagogical Development in Mathematics and Science, *Mentoring & Tutoring: partnership in learning*, 15(2), 201-217.

Jackson, A. & Davis, G. (2000) *Turning Points 2000*. New York: Teacher Education Press.

Joint Council of Queensland Teachers' Associations (2007) Joint Council of Queensland Teachers' Associations. http://www.jcqta.qld.edu.au/ (accessed 25 October 2007).

Lyons, T., Cooksey, R., Panizzon, D., Parnell, A. & Pegg, J. (2006) *Science, ICT and Mathematics Education in Rural and Regional Australia: the SiMERR National Survey*. Canberra: Department of Education, Science and Training.

Marsh, C. (2004) *Becoming a Teacher*. Melbourne: Pearson.

National Education Association (2002) *Great Public Schools for Every Child*. http://www.nea.org/teachershortage/betterbeginnings.html (accessed 6 January 2008).

Neuman, W. (2000) *Social Research Methods: qualitative and quantitative approaches*. London: Pearson.

New South Wales Department of Education and Training (2002) *Mentoring Case Studies*. http://www.schools.nw.edu.au.edu_leadership/prof_reading/mentoring/case_studies (accessed 7 June 2008).

Peeler, E. & Jane, B. (2003) Mentoring: bridging the identity crisis for beginning teachers. Paper presented at the Australian Association of Research in Education conference, Auckland, November.

Ramsey, G. (2000) *Quality Matters, Revitalising Teaching: critical times, critical choices*. Sydney: New South Wales Department of Education and Training.

Ryan, K. & Cooper, J.M. (2000) *Those Who Can Teach*. New York: Houghton Mifflin.

Ryan, M. (2002) The New Basics in Teacher Education, *Professional Voice*, 12(4), 135-196.

Staton, A. & Hunt, S. (1992) Teacher Socialization: review and conceptualization, *Communication Education*, 41(2), 109-137.

Villiani, S. & Danielson, C. (2001) *Mentoring Programs for New Teachers*. London: Corwin Press.

Vinson, T. (2002) *Report of the 'Vinson Inquiry': inquiry into the provision of public education in NSW*. Annandale: Pluto Press.

Walkington, J. (2005) Becoming a Teacher: encouraging development of teacher identity through reflective practice, *Asia-Pacific Journal of Teacher Education*, 33(1), 53-64. http://dx.doi.org/10.1080/1359866052000341124

Wong, H. (2005) New Teacher Induction: the foundation for comprehensive, coherent, and sustained professional development. http://www.herdsa.org.au/branches (accessed 20 June 2007).

Wong, H., Britton, T. & Ganser, T. (2005a) What the World Can Teach Us about New Teacher Induction. http://www.herdsa.org.au/branches (accessed 20 June 2007).

Wong, P., Sterling, H. & Rowland, P. (2005) Effective Practices for Beginning Teachers: a qualitative research evaluation study. http://www.abor.asu.edu/4 (accessed 11 April 2008).

SUE HUDSON is the Academic Coordinator for Queensland University of Technology's Caboolture campus and has 30 years in education including 15 years in tertiary education settings. Sue's research interests include teacher education and induction, the middle years of schooling and community engagement. *Correspondence*: Sue Husdon, Queensland University of Technology, Victoria Park Road, Kelvin Grove, Queensland 4059, Australia (sm.hudson@qut.edu.au).

DENISE BEUTEL is a lecturer in the School of Learning and Professional Studies at Queensland University of Technology. Her research interests include pre-service teacher education, middle years of schooling, mentoring and school reform. Currently, Denise is the coordinator of the Graduate Diploma in Education course at QUT. *Correspondence*: Denise Beutel, Queensland University of Technology, Victoria Park Road, Kelvin Grove, Queensland 4059, Australia (d.beutel@qut.edu.au).

PETER HUDSON was the principal practicum representative of 224 schools for five years. His research interests include mentoring in primary education, leadership and management. He currently supervises six doctoral students. *Correspondence*: Dr Peter Hudson, Senior Lecturer, Queensland University of Technology, Victoria Park Road, Kelvin Grove, Queensland 4059, Australia (pb.hudson@qut.edu.au).