Who are Australia’s Future Teachers?

Data from the 2011 first year cohort of NSW teacher education students.

Ian W. Gibson
Liverpool Hope University

ian.gibson7@gmail.com

Abstract: Government reports are unified in their concern for the quality of teachers, their need for data on teaching and teachers, and their recognition of the role played by a national accreditation standard for teachers across Australia. However, consolidated state and national information on Australia’s future teachers, the current cohorts of teacher education students, is non-existent. Little is known about the backgrounds and experiences of new cohorts of teacher education students in Australia. The project reported in this paper responds to this urgent need, by providing relevant information from a pilot project in NSW that will be crucial for the preparation and professional development of teachers from recruitment to retention. This project makes available previously non-existent data on the backgrounds, motivations, expectations, attitudes, skill sets, and capabilities of new student cohorts. These data inform and support the program improvement and policy decision making process appropriate to the reframing and development of teacher education programs that address the current issues facing the profession in the context of a globalised, 21st century environment, characterised by increasing diversity and issues of teacher recruitment, retention and shortage in key areas specific to Australia’s future role in the global community.

Widespread concern exists about the quality and shortage of teachers (Commonwealth of Australia, 2003; Commonwealth of Australia 2007; Australian Education Union, 2001; Gibson, 2008; MCEECDYA, 2010). Yet little is known about the background, motivations, expectations or skill sets of new cohorts of school-leavers or mature-age, mid-career graduates from other professions entering teaching. Government reports indicate a need for such data and up-to-date information to inform the preparation of new teachers appropriate for the 21st century.

This project collected previously non-existent, statewide data on new first year teacher education student populations. These data describe the backgrounds, motivations, expectations, attitudes, skill sets, and capabilities of teacher education students in their first year of study in 13 NSW universities during the 2011 academic year.

The objectives of the project were:

Objective 1:
To describe the professional needs, motivations, expectations, dispositions, characteristics, skill sets, capacities, and demographic details of new cohorts of teacher education students in New South Wales in 2011.

Objective 2:
To conduct descriptive analyses on the data collected from all NSW Teacher Education institutions in order to inform the debate related to teacher education generally and
Objective 3:
To provide accessible information on the new generation of pre-service teachers that may assist in planning for the future of teacher education programs.

Research Question
What are the characteristics of students entering teacher education programs in New South Wales in 2011?

Research Context
There should be no doubt that teacher education is an area of national concern. Inquiries, reviews, and public opinion directed towards the quality of teachers and teacher education programs have been frequent and vitriolic in their criticism of the profession in the last decade. In *Australia’s Teachers: Australia’s Future* (Commonwealth, 2003), it was suggested that “high quality teacher education, and the high quality teaching it enables, are directly and strongly linked to student achievement” (p. 33). In the conclusions of that same report, the claim that there was a direct link between the quality of teacher education programs in Australia, and the competence and readiness of its skilled labour force for the 21st century was clear: “If Australia is to regenerate schooling and to realise its potential as a scientifically and technologically sophisticated nation advancing on the creative and innovative capacity of its people, decisive action in these areas must be taken” (p. 51). The areas specified were:
- energising the sciences and technology and prioritising innovation in schools;
- planning and collaboration to attract and retain quality teachers;
- revitalising the teaching profession;
- strengthening teacher education and professional learning; and
- supporting future schools through leadership, teams and partnerships. (p. 51)

Further, the revised statements on national priorities for research and development generated by the Commonwealth Government (DEST, 2004) included recognition of the role that quality teaching and schooling play in the future growth of Australia.

Despite this recognition, all is not well in the profession. The high attrition rate of beginning or young teachers is dramatically evident in recent studies conducted at a national level (Australian Education Union, 2001; Commonwealth Committee for the Review of Teaching and Teacher Education, 2003; McKenzie, et al, 2008, Preston, 2000). More than a decade ago, Macdonald (1999) reported that the overall attrition rate was between 3% to 8% in Australian government schools. Those numbers are increasing. Ramsey (2000) highlighted the significant number of early career teacher resignations. Goddard and O’Brien (2003) found that significant numbers of beginning teachers were experiencing burnout in their first year of teaching and that this lead to them leaving the profession early in their careers. McGaw’s study (2002) on the supply, demand, retention, and attrition of teachers emphasized the need for increasing the availability of current data on the issue, and Manuel (2003) responded by identifying the forces and conditions that lead to teacher retention, and the forces and conditions that drove early career-teacher attrition in Australia.
When the issue of high attrition rate is considered alongside the impact of a graying workforce in Australian schools, together they constitute a major concern. It is important therefore to have a clear picture of the new population of aspiring teachers and to understand their perceptions and expectations for teaching in an increasingly complex educational context.

Given the background and rationale for this research, providing a description of the professional needs, motivations, expectations, dispositions, characteristics, skill sets, capacities, and demographic details of new cohorts of teacher education students in New South Wales during the 2011 academic year is a step forward in remedying the paucity of current information available on Australia’s future teachers, and provides data upon which informed program improvement decisions and policy can be founded.

The data in this snapshot of teacher education students is an invaluable resource in formulating responses to issues related to the attrition, recruitment, and retention of teachers and the systemic and practical support needed in teacher education institutions related to functioning in a technology-rich and volatile teaching environment. It also provides insight into specific issues related to technology, and the increasing area of concern related to the diminishing interest in STEM subjects by aspiring teachers in Australia.

The initial project was funded by The Warren Centre for Advanced Engineering of Sydney University (TWC) and was supported throughout by project management and steering committee involvement by members of TWC. The New South Wales Council of Deans of Education (NSWCDE - formerly the NSW Teacher Education Council - NSWTEC) has provided its endorsement for this project, as has the NSW Institute of Teachers.

The main aim of the project was to provide a current picture of the characteristics of new cohorts of teacher education students in New South Wales in 2011, and subsequently, to provide up-to-date information on those presenting to be the next generation of Australia’s teachers. The data gathered in this project was intended to demonstrate how such data could assist policy development, and program improvement and support decisions in teacher education across the nation. There is some potential for data of this type to assist in workforce planning exercises (Owen, Kos, & McKenzie, 2009), particularly as it relates to recruitment and retention issues (Australian Education Union, 2001).

**Methodology**

A *Teacher Education Questionnaire* (TEQ) was developed based upon the instrument used by McKenzie etal (2008; 2010) in their work describing *Staff in Australian Schools* (SiAS), a project commissioned by the Australian Government Department of Education, Science and Training (DEST, now the Department of Education, Employment and Workplace Relations - DEEWR). Permission was obtained from DEEWR and the SiAS team to adapt the SiAS teacher questionnaire to its current focus on teacher education in order to support cross comparisons of data bases at a later stage of analysis. The TEQ research team recognizes the prior work of the SiAS project team and the impact it has had on the TEQ project. The development of the TEQ questionnaire was also informed by the research conducted by the Changing Landscapes team from Macquarie University (Gibson, 2010). The TEQ project and the questionnaire itself has been approved by a University Ethics Review Committee (Human Research).
The TEQ contained items related to student demographic details, educational background, employment background, teacher education course details, reasons for becoming a teacher, expectations for teacher education program, future career intentions, views on the teaching profession, and general comments on teacher education. It was formatted using Qualtrics software with participant access gained via an internet website. The questionnaire was launched on October 18, 2011 and closed on January 15, 2012 with a total of 927 participants from 13 universities in NSW.

Data Analysis

With a total of 927 responses from an estimated 6000 first year students in NSW institutions in 2011, the degree of confidence apportioned to the data collected, its analysis, and therefore its significance can be established through reference to previously established research protocols available from the Australian National Statistics Service (NSS) (http://www.nss.gov.au/). Using this protocol, the size of the sample used in this study allows for a high confidence level to be assigned to results for a population of around 8,000. Clearly, the sample size used in this study, compared to the estimated total number of students in the first year cohort across the state obviously increases the degree of confidence attached to the representative nature of this sample of respondents. As the number of First Year Teacher Education Students in NSW is unlikely to exceed 8,000, the use of this protocol allows the analysis to proceed in the absence of a definitive total population figure.

An initial round of descriptive statistics were run on all items using the Qualtrics software along with a detailed analysis of the qualitative, open-ended responses. Further second round analyses are currently underway, the results of which will be forthcoming in subsequent publications. The summary data presented in this paper have a particular emphasis upon student characteristics, motivations, professional needs, expectations, dispositions, skill sets, capacities, and demographic details of new cohorts of teacher education students in New South Wales during the 2011 academic year. For ease of interpretation and discussion, the descriptive statistics presented throughout this paper are rounded to the nearest whole number. Consequently, rounding errors are obvious in some parts of the discussion.

Findings

The main report of the TEQ project provides an overview and a rationale for the study and explores the background and objectives of the project. It includes a discussion of some of the anomalies found in this research context as they relate to plans for future large-scale exploration of this population. The design of the questionnaire, the questionnaire items, sampling, response rates, and data analysis are outlined as an introduction to the project. The chapters that follow focus upon the demographic background of the respondents; their educational backgrounds; employment backgrounds; specific teacher education course pathways; their areas of curriculum specialisation; levels of comfort experienced with career expectations; why they wanted to become teachers; their expectations related to study times; comfort with technology; areas of additional support needed for their success; expected levels of achievement; factors in their lives likely to impact their progress, and a general assessment of the behaviours and practices they believed were important for teachers to demonstrate. Later discussion explores their future career intentions, and their views on current issues
affecting the teaching profession. The report ends with a glimpse of the conclusions derived from this new data set and recommends future areas for further research and collaborations on a national scale for informing the further preparation of Australia’s future teachers.

For the purposes of this introductory paper, a summary of the initial descriptive data is presented below.

The vast majority of the respondents were born in Australia (N=811, 90%). Three (3%) percent (n=22) identified themselves as Aboriginal and/or Torres Strait Islander students. Of the 87 students born overseas, 47% were born in countries where English was the main language, while the remaining 54% were born in non-English speaking countries. The majority of TEQ respondents (98%) had English as one of the main languages spoken at home. Of all respondents, 11% of students spoke another language at home.

Teacher Education student cohorts in NSW are older than their earlier counterparts. The median age (23) falls within the 20-24 age group. The mean age of this group of participants is 27 and the modal age is 19 (n=121). Approximately 78% of these participants were 20 years of age or older.

Current cohorts of teacher education students are less likely to begin the process of becoming teachers immediately following their completion of high school. Only 19% of participants completed high school in 2010, the year before these data were collected. Two to five years prior to enrolling in a teacher education course thirty percent (30%) of participants completed their high school, and fifty-two percent (52%) completed high school more than five years before they began a teacher education program.

At least one STEM related subject at a senior high school level was studied by 86% of participants. Males were more likely to enrol in physics (36%), chemistry (36%), and information processing and technology (11%). Females were more likely to enrol in biology (42%). However only 12% of respondents had completed a STEM related previous degree.

Forty six percent of respondents (46%) had previously completed other tertiary qualifications, and some of them more than one qualification.

More than half of those employed prior to their decision to become a teacher had spent more than five years in those other activities. Most (74%) indicated they were currently employed while studying. More than 100 respondents indicated they were earning more than the base beginning salary of teachers when they decided to become a teacher.

Three quarters of these respondents (75%) believed the most important ‘skill’ that would benefit them as a teacher was real life experience. Other skills ranked important were time management (68%), 21st century skills (55%), technology (55%), and negotiation (54%). Project planning (41%) and counselling (33%) were also considered of value by at least a third of these respondents.

Fifty two percent (52%) indicated they were studying electives during their teacher education degree. More than half of the respondents (51%) indicated they used a computer for their university related course work / study time 75-100% of the time, with 27% using a computer for 50-75% of their study time. The majority of students were very comfortable with using technology for their own study purposes (88%). Fewer females (52%) were ‘very
comfortable’ using technology for teaching purposes compared to males (73%).

Not surprisingly, the most important reason given for undertaking a teacher education qualification was to work as a teacher or in education or school (88%). The six (6) major factors influencing the decision to become a teacher for these respondents were: 'personal fulfillment' (95%); 'desire to work with young people' (94%); 'teaching suited to abilities (93%); passionate about education (92%); enjoy subject area (91%); and 'makes a worthwhile social contribution' (91%). Salary and financial benefits (66%) were claimed as a motivating factor by fewer respondents than any other reason for becoming a teacher.

More than half of the surveyed students (61%) indicated they allocated the recommended time for preparing for their university classes each week. The remaining students indicated they did not have enough time available or did not spend the recommended time preparing for classes each week (35%), or did not prepare for class at all (4%). The data suggest that STEM students spend less time preparing for class, by nearly 50% in some aggregations.

The most important area of needed support for students undertaking teaching degrees was during the professional teaching experience (61%). The majority of students indicated they would wish to be in a teaching position 5 years after graduation (53%) or a combination of a teaching role and management position (25%).

To the question of whether schools currently have difficulty in retaining teachers in the profession 43% of respondents indicated they did. Their views on how the profession could retain some of these teachers identified the key factors of more support staff (83%), smaller class sizes (86%) and a more positive public image of teachers (80%). Representative comments related to these statistics suggest that:

• A lot of people underestimate the importance and difficulty of teaching. Personally I feel it should be more recognised and praised as teachers put a lot of time and effort into their students success and their futures.
• Additional classroom support is needed for teachers in mainstream classrooms to assist children with special needs. Learning support teams within school need higher emphasis that it assists all students at different levels of learning to catch up and understanding of work.
• Additional classroom resources available to all teachers. Special needs kids should be positively integrated into the school community.
• Teacher’s like a lot of other public sector professions, don’t get the pay they deserve. Unless class size can be reduced and an increase of positions for teachers full time, there is a greater potential for people not to enter the education sector. A lot of work and planning outside of school hours goes on, not getting paid well to do all this, can be a great deterrent.

Ninety percent (90%) of students agreed with the statement ‘teacher professional standards should be used to guide initial teacher education’. The majority of respondents also agreed that teacher professional standards should guide in-service teacher education (88%) and in appraising performance (79%). Only 45% of respondents agreed that teacher’s pay should be based on teacher professional standards with 19% disagreeing. The following extracts represent the majority of views expressed as comments on these issues.

• I believe there is a great need for teacher support within schools to help teachers cope with stress and additional classroom needs. There are a great deal of teachers who are unable to cope because of the pressure from parents and schools to perform.
• As a pre-service teacher I often feel we are often discouraged rather then encouraged to become teachers. Not only does this come from other teachers but also from the community.
• I think the pressure on teachers today to conform to what the parents of students and society wants is making teachers jobs harder. There is constant scrutiny on grades and with Naplan, schools and teachers are being judged and compared in ways that are far from constructive.
• Class performance does not show the ability of the teacher, a low ses class could have a brilliant teacher but due to the low ses circumstances may not reflect in the naplan results.
• I think there should be more opportunities for part-time positions to make it more attractive for mothers to teach – also somehow try to make it easier for professionals to become teachers.

Conclusions and significance

Previously, neither national, nor statewide data on Australia's future teaching force existed. While significant percentages of new cohorts of teacher education students are mature professionals, coming from mid-career positions in other professions, and while the characteristics of teacher education cohorts continue to change, it remains continually necessary to update and review the programs that support these students while they become teachers. It is upon the availability of such data that decisions on procedures, policies, practices, and program improvement needs for teacher education must be founded.

While this report provides valuable insights into students in NSW during 2011, a longitudinal study of the first year teacher education students across all institutions in Australia, for a minimum of three years would create a data base worthy of serious consideration. It would add the missing and needed element to the studies from the past detailing staff in Australia’s schools and provide a complete view of Australia’s current and future teachers.

Keywords: Teacher Education, Statewide survey data, Future Teachers, Teacher quality

References

and intention to leave. Asia Pacific Journal of Teacher Education & Development, 6(2), 99-118.


