



## STUDYING THE EFFECTIVENESS OF TEACHER EDUCATION (SETE)

### RESEARCH BRIEF 4 – June 2013

The Studying the Effectiveness of Teacher Education (SETE) project is investigating the effectiveness of teacher education in preparing graduates for the variety of school settings in which they begin their teaching careers. It is following 2010 and 2011 graduates in Victoria and Queensland during their first three to four years of teaching. The project is supported by a strong partnership with the teacher registration authorities and state education departments in both states. It is expected that the findings will inform teacher education practice and provide an evidentiary basis for policy decisions regarding effective teacher education and beginning teaching.

This four-year mixed-method approach is providing researchers with rich information relating to graduate teachers early career experiences and their perceptions on the relevance and quality of their teacher preparation. Initial findings indicate that three quarters of graduate teachers would recommend their teacher education program to others wanting to qualify as teachers, and as time passes there is a tendency for these graduates to reflect more positively on their programs. This is particularly true for those who have been successful in securing a teaching position. The practicum and university-based components of their teacher education programs are valued highly by graduate teachers and the clear majority signal that these components provided preparation relevant to the schools in which they have found work. An average of responses to all surveys reveals that over 90 per cent of graduate teachers agree or strongly agree that they have been successful in influencing students' learning, a perception which their principals consistently endorse.

Between 73 and 83 per cent of the teacher education graduates who responded to the survey are employed as teachers, mostly on a full-time basis, with 17-34 per cent of these teachers holding positions of whole-school leadership<sup>1</sup>. Of those not currently teaching close to 60 per cent are seeking employment as a teacher 1-2 years post completion of their studies. The industry sector in which teacher education graduates who are not teaching are most commonly employed is education. Of all the 2,000+ graduate teachers who participated in the April 2013 Graduate Teacher Survey, 60 per cent report teaching in 2016 as part of their future plan, and a further 17 per cent see themselves in a leadership position in a school. Six per cent of the graduates could see themselves working outside of teaching/education altogether, this six per cent is largely made up of graduate teachers who had thus far been unsuccessful in securing a teaching appointment.

The relationship between the various school characteristics, key dimensions of teacher education programs and graduate teachers' perceptions of their preparedness and effectiveness were investigated using Pearson product-moment correlation coefficient. Pearson correlation shows no relationship between the school characteristics and effectiveness or preparedness. A relationship was identified between some of the independent variables including:

<sup>1</sup> Ranges are provided where the results differ between survey rounds. For example in Round 1 34 per cent of teachers held leadership positions compared to 17 per cent in Round 3.

- large positive correlation between the rurality indicator and the proportion of Aboriginal and Torres Strait Islander students
- negative correlation between ICSEA and the proportion of Aboriginal and Torres Strait Islander students,
- positive correlation between the number of full time equivalent students and the number of graduate teachers employed.

Independent-sample t-tests were also conducted for Round 3 to compare the overall means of the 16 areas as they relate to preparation for teaching and effectiveness by:

1) Year of completion

There was a significant difference in scores for those who completed their teacher education program in 2010 (n= 680, preparedness – M = 3.4, SD = .64; effectiveness – M = 4.2, SD = .45) and those who completed in 2011 (n=806, preparedness M = 3.5, SD = .68; effectiveness – M = 4.1, SD = .46; preparedness - t (1,484) = -2.28, p = .02, two tailed; effectiveness – t (1,484) = 4.38, p = .000, two tailed). There were no significant differences in scores for preparedness in Rounds 1 and 2, or for effectiveness in Round 2.

2) First in family to complete a tertiary qualification

There was no significant difference in scores for those who were first in family (n= 742, preparedness – M = 3.4, SD = .71; effectiveness – M = 4.2, SD = .49) and those who were not (n=1,016, preparedness M = 3.5, SD = .65; effectiveness – M = 4.1, SD = .45; preparedness - t (1,756) = -1.35, p = .18, two tailed; effectiveness – t (1,756) = 1.33, p = .185, two tailed).

3) Completion of an internship

There was a significant difference in preparedness for those who undertook an internship (n= 324, M = 3.5, SD = .67) and those who did not (n=338, M = 3.4, SD = .69; t (660) = 2.14, p = .03, two tailed;). There was no significant difference in scores for effectiveness for those who undertook an internship (n= 324, M = 4.1, SD = .48) and those who did not (n=338, M = 4.1, SD = .52; t (660) = .72, p = .47, two tailed).

4) Completion of a staggered practicum

There was no significant difference in scores for those who undertook a staggered practicum (n= 291, preparedness – M = 3.5, SD = .72; effectiveness – M = 4.1, SD = .53) and those who did not (n=370, preparedness M = 3.4, SD = .65; effectiveness – M = 4.1, SD = .47; preparedness - t (659) = 1.10, p = .27, two tailed; effectiveness – t (659) = .10, p = .92, two tailed).

5) Location of school (Victoria or Queensland)

There was no significant difference in scores for those who were working in schools in Victoria (n= 1048, preparedness – M = 3.5, SD = .67; effectiveness – M = 4.1, SD = .46) and those who were not (n=1,016, preparedness M = 3.4, SD = .68; effectiveness – M = 4.1, SD = .49; preparedness - t (1, 697) = 1.23, p = .22, two tailed; effectiveness – t (1,697) = .59, p = .56, two tailed).

A one-way between groups analysis of variance (ANOVA) was conducted with Round 2 data to explore the impact of program on perceptions of overall preparation for teaching (16 previously identified key areas combined). There was a statistically significant difference at the p <.05 level in preparedness for the three program types: F (3, 2266) = 7.01, p = .000. In reading these results it is important to note that with large sample size differences can become statistically significant, even if the difference between groups is of little practical importance. In this case the program means are: masters 3.62 (n=193, SD = .63), bachelor 3.57 (n=1,097, SD = .61) and graduate or post graduate diploma 3.47 (n=950, SD = .61). The eta squared was .01 which in Cohen's (1988,pp.284-7) terms is a small effect size.

Post-hoc comparisons using the Tukey HSD test indicated that the mean scores for masters and bachelors graduates were significantly different from those who graduated with a graduate or postgraduate diploma.

This ANOVA was repeated with overall perceptions of preparedness replaced with perceptions of effectiveness. There was also a statistically significant difference at the  $p < .05$  level in effectiveness for the three program types:  $F(3, 2266) = 25.33, p = .000$ . The post-hoc comparisons revealed the same results as for the preparedness test. Suggesting graduates of masters and bachelor degrees perceive themselves as better prepared for teaching and more effective now than their colleagues who have completed graduate or post graduate diplomas. These differences are relatively small (see the program means).

When applied to Round 3 graduate teacher responses statistically significant differences at the  $p < .05$  level were also shown for the three program types:  $F(3, 1640) = 3.5$  (preparedness);  $3.7$  (effectiveness). Post-hoc comparisons using the Tukey HSD test indicated that the mean scores for masters graduates were significantly different for perceptions of preparedness from those who graduated with a graduate or postgraduate diploma, while mean scores for effectiveness were significantly different between those who graduated with a bachelor degree when compared to a graduate/postgraduate diploma.

Additional one-way between subjects ANOVAs were conducted on Round 3 data to compare the effect of school characteristics on overall perceptions of preparation for teaching and effectiveness.

- 1) Exploration of rurality revealed no significant differences at the  $p < .05$  level for graduate perceptions of preparedness and effectiveness based on school location groupings (major cities, inner regional, outer regional, remote, very remote);  $p = .16$  (preparedness),  $.80$  (effectiveness).
- 2) Exploration of socio-economic factors revealed no significant differences at the  $p < .05$  level for graduate perceptions of preparedness and effectiveness based on ICSEA value (above 1000, 1000, below 1000);  $p = .11$  (preparedness),  $.64$  (effectiveness).
- 3) Exploration of school size revealed no significant differences at the  $p < .05$  level for graduate perceptions of preparedness;  $p = .73$ . There was a statistically significant difference at the  $p < .05$  level in perceptions of effectiveness for the 15 classifications:  $F(14, 1527) = 1.78$ , though analysis of mean difference did not reveal which groups were different from one another.

The sample is comprised of 6,683 responses to the graduate teacher surveys (Rounds 1-3, March 2012 to April, 2013). Over 40 per cent of the respondents who make up the sample are the first in their families to get a tertiary qualification, 20-23 per cent were male, and as at March 2012, approximately one third were aged 20-24, one third 25-34, and one third 35 or above.

A total of 16 questions on preparation for teaching make up the Preparation Scale for Round 3. This scale demonstrates good internal consistency with a Cronbach alpha coefficient of  $.910$ . The Effectiveness for Teaching Scale for Round 3, also containing 16 questions, demonstrates good internal consistency with a Cronbach alpha coefficient of  $.915$ .

The Preparation Scale for Round 2 demonstrates good internal consistency with a Cronbach alpha coefficient of  $.905$ . The Effectiveness for Teaching Scale for Round 2 demonstrates good internal

consistency with a Cronbach alpha coefficient of .913. This is consistent with the results reported for Round 1 in Research Brief 2.

A fourth and final Teacher Survey will open in April 2014. In June 2014 survey data for all four rounds will be merged to create a longitudinal dataset, enabling the SETE team to examine change overtime.

The four-year SETE study runs concurrently with the national Longitudinal Teacher Education Workforce Study (LTEWS). The SETE project is supported by Australian Research Council funding and contributions from each industry partner - the Victorian Department of Education and Early Childhood Development (DEECD), the Queensland Department of Education, Training and Employment (QDETE), the Victorian Institute of Teaching (VIT), and the Queensland College of Teachers (QCT). LTEWS is funded by the Department of Education, Employment and Workplace Relations (DEEWR) and managed by the Sub-Group of the Australian Education, Early Childhood Development and Youth Affairs Senior Officials Committee (AEEYSOC) Teaching Workforce Dataset Working Group.

For more information about SETE contact [jodie.kline@deakin.edu.au](mailto:jodie.kline@deakin.edu.au) or [diane.mayer@vu.edu.au](mailto:diane.mayer@vu.edu.au)