

Academic Outcomes of Home Schooling

Review of Research and Analysis of Statewide Tests

December 2014

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Executive Summary

Under the *Education Act 1990* home schooling is education delivered in a child's home by a parent or guardian. Registration with the Board of Studies, Teaching and Educational Standards NSW (BOSTES) is a legal requirement for home schooling while a child is of compulsory school age and not enrolled in a school.

This report examines available evidence on the academic outcomes of children who have been home schooled. This evidence includes a literature review of previous studies and analysis of results in statewide assessments such as the National Assessment Program Literacy and Numeracy (NAPLAN) tests, School Certificate and Higher School Certificate.

There is a paucity of research evidence on the academic outcomes of home schooled students. The major reviews of the research literature note major shortcomings, including the lack of quantitative studies and the self-selection of participants. These reviews have tentatively concluded that home educated children have achieved at a level at least equivalent to the average achievement of students who attend school.

The research reported in this paper shares similar shortcomings. The only achievement data available for currently home schooled students is that arising from students who voluntarily undertake the NAPLAN tests. Only a small minority of home schooled students (about 10%) choose to undertake the tests, and thus any results must be treated with extreme caution. The results indicate that this group of students scored significantly above the overall NSW average in nearly every test. The differences were largest in Reading, Grammar & Punctuation and Numeracy, where home schooled students' average scores were typically about 70 marks (or about one standard deviation) higher than the NSW average. The differences were smaller in Spelling (about 40 marks) and Writing (about 20 marks).

The other groups for whom data was available were students who had been previously home schooled and had subsequently attended school and participated in statewide tests. While these groups were larger than the small group of current home schooled students in NAPLAN, they still suffer from sampling issues, as it is impossible to know to what extent they represent home schooled students as a whole. In addition, all of these students had some part (in some cases the great part) of their education delivered at school rather than at home.

In relation to NAPLAN tests, the analysis showed that students who were previously home schooled scored significantly higher in the Reading and Grammar & Punctuation tests, generally by about 20-25 marks (or about one-third of a standard deviation) in Reading, and 15-25 marks in Grammar & Punctuation. In Writing, Spelling and Numeracy, the home schooled student averages are generally not statistically significantly different from the overall NSW average. These results were consistent, regardless of the Year Levels being tested, and whether students have been registered for home schooling for shorter or longer periods.

In the School Certificate tests (English, Mathematics and Science) the average results of students who had been previously home schooled were similar to the state averages for all students, particularly for those who had been home schooled for two years or less. For those who had been home schooled for more than two years, average scores were slightly higher than the state average.

In HSC 2 Unit English (Advanced and Standard), there were no statistically significant differences between the average results of students who had been previously home schooled and the average results for the whole HSC cohort. Averages for the two groups generally differed by less than two marks, regardless of the length of time that students had been previously home schooled.

In summary, the research reported in this paper provides no strong evidence to indicate that home schooling is associated with substantially different academic outcomes. The shortcomings in the research, in particular the very limited representation of home schooled students in the samples, prevent any firm conclusions being drawn.

Academic Outcomes of Home Schooling

1 Introduction

Under the *Education Act 1990* home schooling is education delivered in a child's home by a parent or guardian.

Home schooling allows a parent or guardian to integrate the NSW curriculum with the learning processes that occur naturally in the home throughout a child's development.

Parents or guardians who are home schooling a child are responsible for developing and implementing their child's educational program and assessing their child's program. Registration with the Board of Studies, Teaching and Educational Standards NSW (BOSTES) is a legal requirement for home schooling while a child is of compulsory school age and not enrolled in a school.

This report examines available evidence on the academic outcomes of children who have been home schooled. This evidence includes a literature review of previous studies and analysis of results in statewide assessments such as the National Assessment Program Literacy and Numeracy (NAPLAN) tests, School Certificate and Higher School Certificate.

2 Literature Review

2.1 Overview

Two major summary reports into the outcomes of home schooling have been published, one looking at the international literature and the second looking at Australian research.

Home Schooling: A Comprehensive Survey of the Research, by Robert Kunzman and Milton Gaither, is a major research endeavour that addresses and evaluates the significant international literature published in this area up to 2013. Most of this literature is based on the USA, where the number of home schooled children was around 1.5 million in 2007 and is estimated to have grown substantially since then. The authors also examine the body of English language research in Europe and elsewhere. The numbers of studies in countries outside the USA understandably reflect the smaller numbers of home schooled students in those countries.

The much smaller body of Australian research is outlined in *Summary of Australian Research on Home Education (2014)* by Glenda Jackson. Other reports by Jackson include *Fundamental Elements in Examining a Child's Right to Education: a Study of Home Education Research and Regulation in Australia (2010)* and her 2009 unpublished doctoral thesis, '*More than One Way to Learn': Home Educated Students' Transitions Between Home and School*'.

2.2 Context and Limitations of the Research on Home Schooling

Kunzman and Gaither's work identifies some significant caveats and contextual factors, as identified below, that need to be borne in mind when examining studies in this area:

- Home schooling participants in studies are often self-selected.
- Reliable demographic information about home schooled students is largely unavailable, and random sampling has proven impossible to obtain. Different countries, and different states within countries, have varying rules and arrangements regarding home schooling, therefore comparisons become difficult.
- For the most part, home schooling research is qualitative and anecdotal. Interviews may be the sole source of data collection.

- Research in some cases appears to be politically motivated. Kunzman and Gaither report that in the USA a large number of studies have been performed under the auspices of the prominent home schooling advocacy organisation, the Home School Legal Defense Association (HSLDA).
- There are many aspects to home schooling or home education, and an enormous variety of delivery methods, motivations and beliefs among families who choose to educate their children at home. Individual studies, while valid, may concentrate on a single narrow focus, and there may be little other material to consolidate the findings.

2.3 Academic Outcomes of Home Schooled Students

Kunzman and Gaither are critical of the body of data about USA home schooler academic achievement. Although from 1990 to 2010 five large scale studies of academic achievement were conducted, this research was done under the auspices of the home schooling advocacy organisation, HSDLA. Kunzman and Gaither consider that the research methodology was extremely dubious. This casts doubt on the results: that in every case home schooled students consistently scored in the 80th percentile or above on nearly every measure when compared against the national average.

However, Kunzman and Gaither state that some tentative conclusions about academic achievement of home schooled students can be drawn based on persistently corroborating evidence over two decades. These findings are:

- Home schooling does not have much of an effect at all once family background variables are controlled for.
- Parental background matters very much in home schooler academic achievement.
- Home schooling tends to result in above-average verbal capacities but below-average maths capacities.

Jackson's *Summary of Australian Research on Home Education (2014)* states that "while there are no specific major studies on the academic success of home educated students, a couple of small studies show and most other research indicates that Australian home educated children have achieved an equal or higher than average result to their formally educated peers".

Her earlier (2010) article *Fundamental Elements in Examining a Child's Right to Education: a Study of Home Education Research and Regulation in Australia* amplifies this information in relation to academic achievements in a broader sense. She reports that home schooled students are entering tertiary institutions with ease.

She also notes that home schooled students who do have problems academically usually have identifiable learning difficulties.

3 NAPLAN Results – Home Schooled Students

Home schooled students are eligible to sit for the National Assessment Program Literacy and Numeracy (NAPLAN) tests conducted annually for Years 3, 5, 7 and 9. Participation in the tests is voluntary, with a fee of about \$40 and the tests are administered by parents using the NAPLAN administration protocols. In the six-year period from 2008 (when NAPLAN commenced) until 2013, a total of about 500 home schooled students in NSW have undertaken the tests, representing about 10% of home schooled students in the relevant age groups over that period.

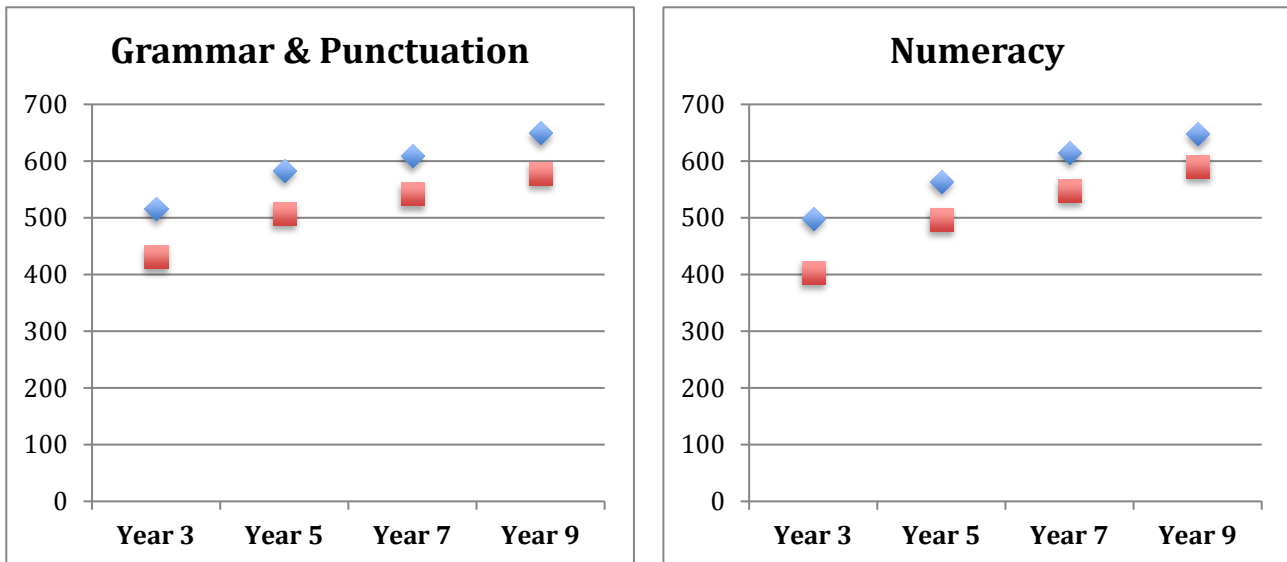
NAPLAN results are reported using five national achievement scales, one for each of the NAPLAN assessment domains of reading, writing, spelling, grammar and punctuation, and numeracy. Student raw scores on tests are converted to a NAPLAN 'scale score' so that those scores can be located on the national scale for each domain. The NAPLAN reporting scales are constructed so that any given

scale score represents the same level of achievement over time. For example, a score of 700 in reading in one year represents the same level of achievement in other testing years.

The average scale scores of NSW home schooled students in the NAPLAN tests for 2008 to 2013 are shown in Tables 1 to 6 (all Tables are in Appendix 1) and Figure 1 below. Because of the small numbers of home schooled students undertaking the tests, the results were aggregated across the full six-year period for each domain in each school year (3, 5, 7 and 9). Also shown are the average scores for all NSW students in each domain, the difference between the home schooled average and the overall average, and whether these differences are statistically significant ($p < 0.05$). Because the NSW average scores vary slightly each year, the figures shown in Tables 1 to 6 are the average of these scores over the six-year period, weighted according to the relative numbers of home schooled students each year. Results in the writing domain are separated for narrative writing (2008 to 2010) and persuasive writing (2011 to 2014).

Figure 1: Average NAPLAN Scores for Home Schooled and all NSW Students, 2008 – 2013





It can be seen from Tables 1 to 6 and Figure 1 that the average score for home schooled students was higher than the overall NSW average in every instance, with the difference being statistically significant in all cases except one. While there were variations across Year levels, the differences were largest in Reading, Grammar & Punctuation and Numeracy, where home schooled students' average scores were typically about 70 marks (or about one standard deviation) higher than the NSW average. The differences were smaller in Spelling (about 40 marks) and Writing (20 marks).

4 NAPLAN Results – Previously Home Schooled Students

In addition to the relatively small number of currently home schooled students who undertake the NAPLAN tests each year, there is a substantially larger number of students who were previously registered for home schooling but returned to school and completed the NAPLAN tests there. Identification of such students was undertaken by matching student details on the NAPLAN data files with those in the BOSTES records of students registered for home schooling. Matching was based on student name, gender and date of birth.

A total of 3965 matched students who had completed one or more NAPLAN tests were identified, of whom 2572 (65%) had prior home schooling registration(s) totalling two years or less and 1394 (35%) had been registered for more than two years in total. These two groups were analysed separately to provide some differentiation in terms of length of home schooling experience.

Tables 7 to 12 and Figure 2 show the NAPLAN results for students home schooled for two years and less, while Tables 13 to 18 and Figure 3 show results for students home schooled for more than two years. As was the case for the NAPLAN results in the previous part of this report, results are pooled across the period 2008 to 2013 (split for the Writing test), with differences calculated against the weighted average of the overall NSW results over that period.

The findings in Tables 7 to 18 are very consistent, regardless of the Year Levels being tested, and whether students have been registered for home schooling for shorter or longer periods. Students who were previously home schooled scored significantly higher in the Reading and Grammar & Punctuation tests, generally by about 20-25 marks (or about one-third of a standard deviation) in Reading, and 15-25 marks in Grammar & Punctuation. In Writing, Spelling and Numeracy, the home schooled student averages are generally not statistically significantly different from the overall NSW average.

Figure 2: Average NAPLAN Scores for Previously Home Schooled (≤ 2 years) and all NSW Students, 2008 – 2013

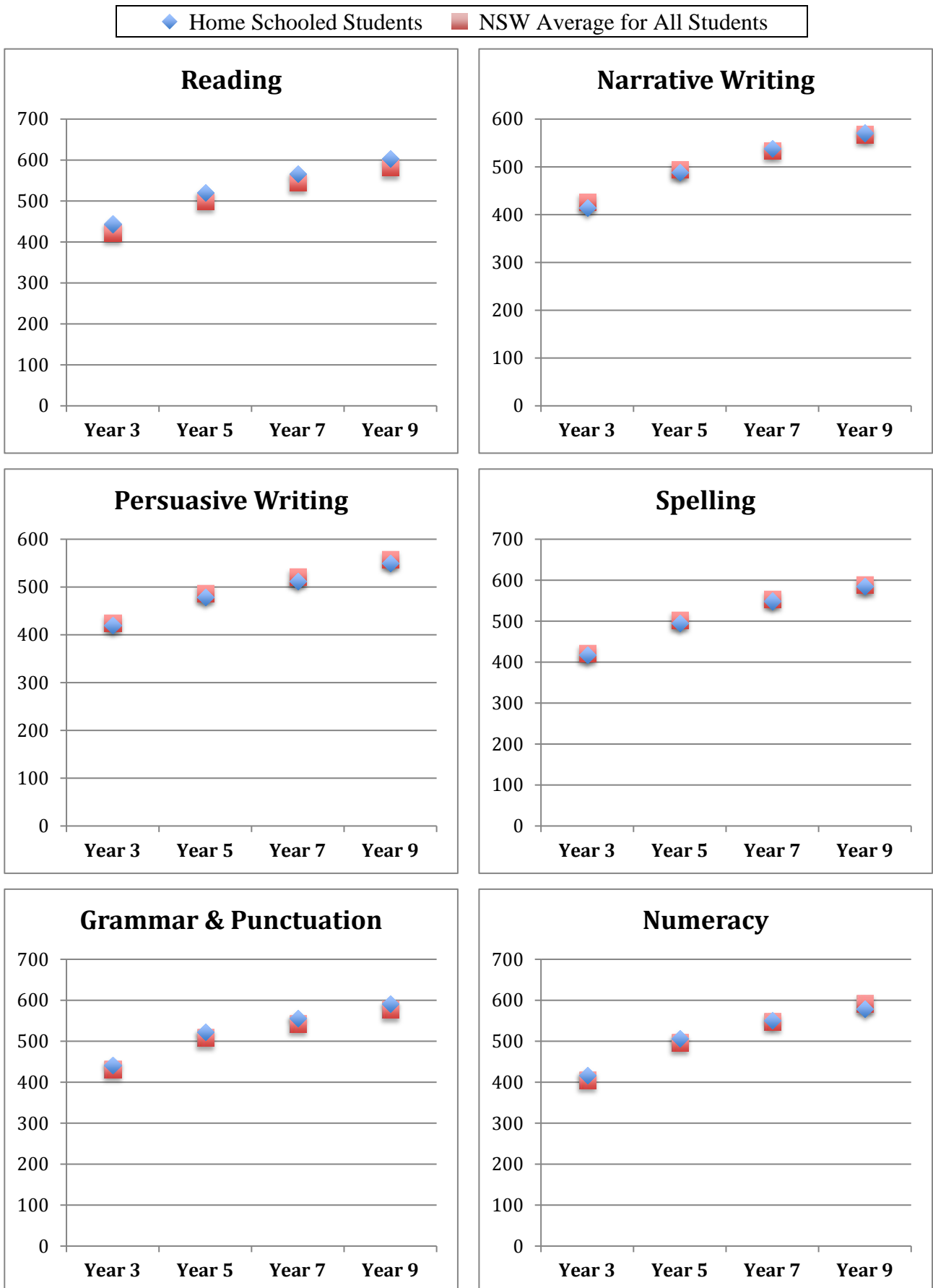
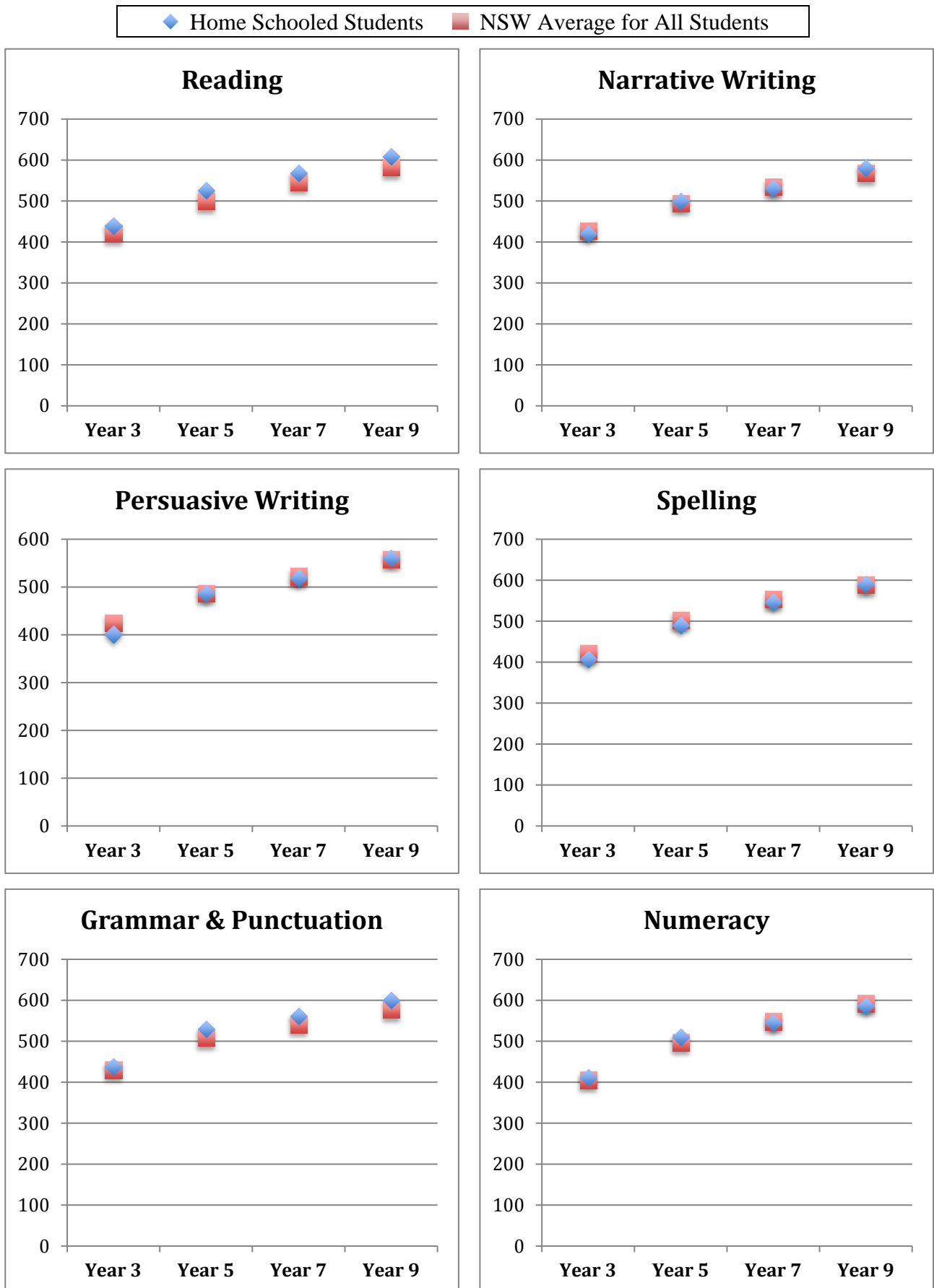


Figure 3: Average NAPLAN Scores for Previously Home Schooled (> 2 years) and all NSW Students, 2008 – 2013



5 School Certificate Test Results – Previously Home Schooled Students

The NSW School Certificate was a credential awarded to eligible students after four years of secondary schooling (Years 7–10). The School Certificate required students to undertake mandatory statewide tests of foundation knowledge and skills at the end of Year 10. The tests were each of two hours duration with students receiving a standards-aligned mark out of 100 for each test.

Nearly all NSW secondary school students undertook the School Certificate, with nearly 85,000 students undertaking the tests in 2011, the last year in which the School Certificate was offered. The School Certificate and the associated tests were only available to students attending school, not to home schooled students.

Data matching (on name, gender and date of birth) was used to identify students who undertook the School Certificate tests and had been previously registered for home schooling. These students were further subdivided into those with total home schooling registration of two years or less, and those with more than two years registration. The results of these students were compared to those for the entire cohort in the English-literacy, Mathematics and Science tests for the last five years of the School Certificate (2007 – 2011). The results are shown in Tables 19 to 24.

It can be seen from Tables 19 to 24 that the pattern of results was very consistent from year to year. For students who had been home schooled for two years or less, average scores were generally within one or two marks of the State average, and differences were not statistically significant. The exception was in 2011, where previously-home schooled students' average scores were statistically significantly higher than the NSW average for English and Science, although the differences were less than 3 marks.

Differences were generally larger for students who had been home schooled for more than two years, with the average marks for these students being significantly higher than the NSW average on the majority of occasions. While these differences were statistically significant, their magnitude was fairly small, being generally about 3 marks.

6 Higher School Certificate English Results – Previously Home Schooled Students

To qualify for the NSW Higher School Certificate (HSC), students must satisfactorily complete a pattern of study that includes at least two units of a Board Developed Course in English. The great majority of students complete the 2 Unit English (Advanced) or English (Standard) courses. Results in these two courses are reported on a common standards-aligned scale as marks out of 100, comprised in equal part of moderated school assessment and statewide examination results.

Data matching (on name, gender and date of birth) was used to identify students who completed HSC English (Advanced) or English (Standard) and had been previously registered for home schooling. These students were further subdivided into those with total home schooling registration of two years or less, and those with more than two years registration. The results of these students were compared to those for the entire HSC cohort in English (Advanced) and English (Standard) for the last five years (2009 – 2013). The results are shown in Tables 25 and 26.

It can be seen from Tables 25 and 26 that the pattern of results was very consistent from year to year. There were no statistically significant differences between the average results of students who had been previously home schooled and the average results for the whole HSC cohort. Averages for the two groups generally differed by less than two marks, regardless of the length of time that students had been previously home schooled.

7 Demographic Characteristics

7.1 Gender

Table 27 shows the percentages of male and female home schooled and previously home schooled students who undertook NAPLAN tests in the period 2008 – 2013, and provides comparative information on the gender composition of all home schooled students, and of all students undertaking NAPLAN. It can be seen from Table 27 that about 46% of home schooled and previously home schooled students undertaking NAPLAN were female, very similar to the overall percentage of female home schooled students (46%) and slightly below the percentage of females in the overall NAPLAN test cohort (49%).

Table 28 shows the percentages of male and female previously home schooled students who undertook School Certificate tests in 2007 – 2011, and comparative information for the entire School certificate test candidature over the same period. Table 28 also shows similar information relating to HSC English (Advanced and Standard) over the period 2009 – 2013. It can be seen from Table 28 that the gender composition of previously home schooled students closely matched the composition for the overall candidature in both the School Certificate tests (49% female) and HSC English (53% female).

7.2 Socio-Economic Status (SES)

Where possible, the addresses of home schooled students were geocoded to enable matching with relevant Australian Bureau of Statistics (ABS) local area statistics. The socio-economic status of the localities in which home schooled students reside was estimated using the ABS Statistical Area Level 1 (SA1) Index of Relative Socio-economic Advantage and Disadvantage, 2011. This measure provides a SES measure and percentile rank for each of the approximately 50,000 SA1 locations in Australia. These percentiles were converted into four quartiles, each encompassing 25% of the population.

Data on SES is reported below, separated for the four groups of students analysed in this study:

- Home schooled students – NAPLAN
- Previously home schooled students – NAPLAN
- Previously home schooled students – School Certificate tests
- Previously home schooled students – HSC English 2 Unit

For the School Certificate and HSC, comparative information is provided for the entire candidature (this information is not available for NAPLAN students).

It can be seen from Tables 29 to 32 that the socio-economic status of students was spread fairly evenly across the four quartiles, but that in each case, the smallest proportion was in the high-SES group (top 25%). This was the case even in the HSC English group, where the total student population is skewed towards higher SES (32% in top quartile).

8 Conclusion

There is a paucity of research evidence on the academic outcomes of home schooled students. The major reviews of the research literature note major shortcomings, including the lack of quantitative studies and the self-selection of participants. These reviews have tentatively concluded that home educated children have achieved at a level at least equivalent to the average achievement of students who attend school.

The research reported in this paper shares similar shortcomings. The only achievement data available for currently home schooled students is that arising from students who voluntarily

undertake the NAPLAN tests. Only a small minority of home schooled students (about 10%) choose to undertake the tests, and thus any results must be treated with extreme caution. The results indicate that this group of students scored significantly above the overall NSW average in nearly every test. The differences were largest in Reading, Grammar & Punctuation and Numeracy, where home schooled students' average scores were typically about 70 marks (or about one standard deviation) higher than the NSW average. The differences were smaller in Spelling (about 40 marks) and Writing (about 20 marks).

The other groups for whom data was available were students who had been previously home schooled and had subsequently attended school and participated in statewide tests (NAPLAN, School Certificate and HSC). While these groups were larger than the small group of current home schooled students in NAPLAN, they still suffer from sampling issues, as it is impossible to know to what extent they represent home schooled students as a whole. In addition, all of these students had some part (in some cases the great part) of their education delivered at school rather than at home.

In relation to NAPLAN tests, the analysis showed that students who were previously home schooled scored significantly higher in the Reading and Grammar & Punctuation tests, generally by about 20-25 marks (or about one-third of a standard deviation) in Reading, and 15-25 marks in Grammar & Punctuation. In Writing, Spelling and Numeracy, the home schooled student averages are generally not statistically significantly different from the overall NSW average. These results were consistent, regardless of the Year Levels being tested, and whether students have been registered for home schooling for shorter or longer periods.

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In summary, the research reported in this paper provides no strong evidence to indicate that home schooling is associated with substantially different academic outcomes. The shortcomings in the research, in particular the very limited representation of home schooled students in the samples, prevent any firm conclusions being drawn.

Appendix 1: Tables

Table 1: NAPLAN Reading, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	508	153	423	85	*
Year 5	569	172	500	69	*
Year 7	605	115	545	60	*
Year 9	643	59	581	62	*

Table 2: NAPLAN Narrative Writing, 2008 – 2010

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	445	59	427	18	*
Year 5	511	72	494	17	*
Year 7	566	51	534	32	*
Year 9	630	20	567	63	*

Table 3: NAPLAN Persuasive Writing, 2011 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	437	93	425	12	
Year 5	503	97	487	16	*
Year 7	554	64	521	33	*
Year 9	601	39	557	44	*

Table 4: NAPLAN Spelling, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	470	153	422	48	*
Year 5	547	172	504	43	*
Year 7	593	116	554	39	*
Year 9	662	59	587	75	*

Table 5: NAPLAN Grammar & Punctuation, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	516	153	431	85	*
Year 5	584	172	508	76	*
Year 7	609	116	542	67	*
Year 9	650	59	578	72	*

Table 6: NAPLAN Numeracy, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	499	153	404	95	*
Year 5	564	171	497	67	*
Year 7	615	116	548	67	*
Year 9	648	61	591	57	*

Table 7: NAPLAN Reading – Students Previously Home Schooled for ≤ 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	444	357	422	22	*
Year 5	520	562	500	20	*
Year 7	567	751	545	22	*
Year 9	603	816	582	21	*

Table 8: NAPLAN Narrative Writing – Students Previously Home Schooled for ≤ 2 years, 2008 – 2010

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	415	155	427	-12	-
Year 5	489	239	494	-5	-
Year 7	539	333	534	-5	-
Year 9	571	394	568	-3	-

Table 9: NAPLAN Persuasive Writing – Students Previously Home Schooled for ≤ 2 years, 2011 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	420	200	425	-5	-
Year 5	479	319	487	-8	-
Year 7	512	419	521	-9	-
Year 9	550	428	558	-8	-

Table 10: NAPLAN Spelling – Students Previously Home Schooled for ≤ 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	417	356	422	-5	-
Year 5	495	561	503	-8	-
Year 7	549	752	554	-5	-
Year 9	586	822	588	-2	-

Table 11: NAPLAN Grammar & Punctuation – Students Previously Home Schooled for ≤ 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	442	356	431	11	*
Year 5	522	561	508	14	*
Year 7	557	752	542	15	*
Year 9	592	822	577	15	*

Table 12: NAPLAN Numeracy – Students Previously Home Schooled for ≤ 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	417	357	405	12	*
Year 5	507	560	496	11	*
Year 7	551	762	548	3	-
Year 9	579	858	592	-13	*

Table 13: NAPLAN Reading – Students Previously Home Schooled for > 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	440	100	421	19	*
Year 5	526	250	499	27	*
Year 7	569	433	545	24	*
Year 9	609	551	582	27	*

Table 14: NAPLAN Narrative Writing – Students Previously Home Schooled for > 2 years, 2008 – 2010

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	420	50	427	-7	-
Year 5	500	142	494	6	-
Year 7	532	218	534	-2	-
Year 9	581	283	568	13	*

Table 15: NAPLAN Persuasive Writing – Students Previously Home Schooled for > 2 years, 2011 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	401	52	425	-24	-
Year 5	486	107	487	-1	-
Year 7	519	216	522	-3	-
Year 9	561	273	558	3	-

Table 16: NAPLAN Spelling – Students Previously Home Schooled for > 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	407	102	422	-15	-
Year 5	490	251	503	-13	-
Year 7	547	432	553	-6	-
Year 9	590	557	588	2	-

Table 17: NAPLAN Grammar & Punctuation – Students Previously Home Schooled for > 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	438	102	430	8	-
Year 5	530	251	508	22	*
Year 7	562	432	541	21	*
Year 9	601	557	577	24	*

Table 18: NAPLAN Numeracy – Students Previously Home Schooled for > 2 years, 2008 – 2013

School Year	Home Schooled Students		NSW Average (Weighted)	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
Year 3	412	102	405	7	-
Year 5	510	250	496	14	*
Year 7	545	447	548	-3	-
Year 9	586	569	592	-6	-

Table 19: School Certificate English-literacy Test – Students Previously Home Schooled for ≤ 2 years, 2007 – 2011

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2007	74.6	97	74.7	-0.1	-
2008	78.0	106	76.6	1.4	-
2009	78.2	122	77.4	0.8	-
2010	76.8	122	76.8	0.0	-
2011	80.2	144	77.3	2.9	*

Table 20: School Certificate Mathematics Test – Students Previously Home Schooled for ≤ 2 years, 2007 – 2011

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2007	68.6	100	69.4	-0.8	-
2008	70.1	104	70.6	-0.5	-
2009	69.2	121	70.6	-1.4	-
2010	70.7	124	72.0	-1.4	-
2011	72.5	140	70.8	1.7	-

Table 21: School Certificate Science Test – Students Previously Home Schooled for ≤ 2 years, 2007 – 2011

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2007	73.7	98	73.5	0.3	-
2008	75.3	106	73.6	1.7	-
2009	75.5	122	75.0	0.5	-
2010	76.7	124	76.6	0.2	-
2011	78.1	142	75.3	2.7	*

Table 22: School Certificate English-literacy Test – Students Previously Home Schooled for > 2 years, 2007 – 2011

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2007	77.2	75	74.7	2.5	*
2008	80.2	84	76.6	3.6	*
2009	79.9	84	77.4	2.5	*
2010	78.8	105	76.8	2.0	*
2011	78.9	83	77.3	1.6	-

Table 23: School Certificate Mathematics Test – Students Previously Home Schooled for > 2 years, 2007 – 2011

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2007	72.5	76	69.4	3.1	*
2008	73.9	83	70.6	3.3	*
2009	71.9	83	70.6	1.3	-
2010	72.7	103	72.0	0.7	-
2011	72.5	84	70.8	1.7	-

Table 24: School Certificate Science Test – Students Previously Home Schooled for > 2 years, 2007 – 2011

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2007	76.7	74	73.5	3.2	*
2008	77.8	84	73.6	4.3	*
2009	78.3	84	75.0	3.3	*
2010	78.9	104	76.6	2.4	*
2011	77.0	83	75.3	1.7	-

Table 25: HSC 2 Unit English Results– Students Previously Home Schooled for ≤ 2 years, 2009 – 2013

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2009	69.8	65	71.8	-2.0	-
2010	71.0	68	71.6	-0.6	-
2011	71.2	83	72.0	-0.8	-
2012	71.9	79	73.9	-2.0	-
2013	72.2	102	72.2	0.1	-

Table 26: HSC 2 Unit English Results – Students Previously Home Schooled for > 2 years, 2009 – 2013

Year	Home Schooled Students		NSW Average	Diff between Averages	Stat. Signif. (p<0.5)
	Average Score	n			
2009	71.8	61	71.8	0.0	-
2010	73.9	71	71.6	2.3	-
2011	73.6	70	72.0	1.6	-
2012	73.7	90	73.9	-0.2	-
2013	72.2	71	72.2	0.0	-

Table 27: Gender Composition: NAPLAN, 2008 – 2013

Gender	Homeschooled - NAPLAN	Previous Homeschooled – NAPLAN	All Home Schooled	All NAPLAN
Female	45.9%	45.6%	46.4%	48.7%
Male	54.1%	54.4%	53.6%	51.3%

Table 28: Gender Composition: School Certificate Tests and HSC English

Gender	School Certificate Tests		HSC English	
	Previous Homeschooled	All Students	Previous Homeschooled	All Students
Female	48.9%	49.2%	53.6%	52.8%
Male	51.1%	50.8%	46.4%	47.2%

Table 29: SES of Home Schooled students - NAPLAN

SES Quartile	%
Bottom 25%	24.1%
26% – 50%	23.7%
51% – 75%	31.7%
Top 25%	20.5%
Total	100.0%

Table 30: SES of Previously Home Schooled students - NAPLAN

SES Quartile	%
Bottom 25%	25.0%
26% – 50%	29.5%
51% – 75%	24.1%
Top 25%	21.4%
Total	100.0%

Table 31: SES of Previously Home Schooled students – School Certificate Tests

	Previously Home Schooled	All Students
SES Quartile	%	%
Bottom 25%	26.4%	24.0%
26% – 50%	26.7%	24.5%
51% – 75%	27.7%	24.4%
Top 25%	19.2%	27.1%
Total	100.0%	100.0%

Table 32: SES of Previously Home Schooled students – HSC English 2 Unit

	Previously Home Schooled	All Students
SES Quartile	%	%
Bottom 25%	23.1%	20.1%
26% – 50%	24.6%	22.9%
51% – 75%	30.3%	25.1%
Top 25%	22.0%	31.9%
Total	100.0%	100.0%