WACE Achievement Data 2016

In 2012 a report to the Minister for Education titled The Western Australian Certificate of Education 2015: Responding and Adapting identified the following issues with the WACE at that time:

- Stage 1 enrolments are much higher than envisaged and significant numbers of students are not undertaking courses commensurate with their ability;
- low and declining Stage 2 enrolments have resulted in Stage 2 examinations being unviable;
- the current three stage design of WACE courses is incompatible with the Senior Secondary Australian Curriculum, which comprises Year 11 and Year 12 courses;
- significant concerns have been raised regarding the standards of literacy and numeracy achieved by students who are currently graduating with a WACE;
- some students graduating with a WACE are poorly prepared for subsequent educational pathways into university or vocational education and training;
- the Authority is currently unable to provide adequate information about students' standards of achievement in Preliminary course units, Stage 1 course units and endorsed programs; and
- lack of clarity regarding the value and significance of achievement of a WACE.

Following acceptance of the recommendations in this report the School Curriculum and Standards Authority implemented a set of reforms designed to address these concerns. The revised WACE, which was implemented for the Year 12 students of 2016, has the following characteristics:

## Literacy and numeracy

Students must demonstrate a minimum standard of literacy and a minimum standard of numeracy based on the skills regarded as essential for individuals to meet the demands of everyday life and work in a knowledge-based economy (Australian Core Skills Framework - level 3). Students could pre-qualify if they achieved a band 8 score in their Year 9 NAPLAN or are provided with two opportunities each year (from Year 10 to 12) to sit an online literacy and numeracy assessment (the OLNA).

## Preparation for further study

Students at must complete a minimum of 20 units or equivalent including four or more Year 12 ATAR courses (potentially leading to university study) or a Certificate II or higher (potentially leading to further vocational education and training or work).

## Breadth and depth of study

Students will complete a minimum of 20 course units or equivalent including a minimum of ten Year 12 units, including English and at least one course from mathematics/science/technology and one course from the humanities/social sciences.

## Achievement of specific standards

Students are required to achieve 14 C grades (or higher) in Year 11 and Year 12 units, including at least six $C$ grades in Year 12 units (or equivalent)

## Course design

The previous three-stage course design has been replaced by the following set of courses:

## ATAR courses

These include two Year 11 units (units 1 \& 2) and two linked Year 12 units (units 3 \& 4) and are externally examined.

## General courses

These are at a lower level of difficulty than ATAR courses and include two Year 11 units (units $1 \& 2$ ) and two linked Year 12 units (units $3 \& 4$ ). General courses are not externally examined but are moderated. As with ATAR courses, there is a fundamental assumption that there should be an increasing level of difficulty and complexity from Year 11 units to Year 12 units.

## VET programs

These programs are offered primarily for students taking General courses who are not seeking to obtain an ATAR and will probably undertake additional VET education or may seek to enter the workforce.

## 2016 Outcomes

Set out below is achievement data from the first cohort of students (2016) who completed the reformed WACE.

## Year 12 population

- 25441 Year 12 students undertook studies towards the WACE, an increase of 2.19 per cent on the 24895 students in 2015.
- In addition, 3642 (3619 in 2015) 17 year olds not enrolled in schools were engaged in apprenticeships, traineeships, employment and/or training.


## Secondary WACE achievement

- Of the 25441 Year 12 students (24 895 in 2015), 23360 full-time students were eligible to achieve a WACE (23 475 in 2015).
- In 2016, 21473 ( 91.9 per cent) of eligible Year 12 students achieved a WACE. This compares to 22630 ( 96.4 per cent) in 2015. It should be remembered that the WACE is now significantly more rigorous as a result of the requirement for students to demonstrate minimum literacy and numeracy standards, minimum numbers of 'C grades' and the completion of a Certificate II or higher for students not enrolled in ATAR courses.


## ATAR course examinations

- There were 13540 Year 12 students ( 58.0 per cent of Year 12 students who undertook full time studies towards the WACE) who sat four or more ATAR course examinations in 2016. In 2015, there were 13680 Year 12 students ( 58.3 per cent) who sat four or more ATAR course examinations. Students who sit four or more ATAR course examinations may be eligible for an ATAR.


## VET

- In 2016, 13547 Year 12 students achieved at least one VET qualification at Certificate II or higher in Year 10, 11 or 12, compared with 10843 in 2015.
- In 2016, 3408 students achieved a Certificate III and 674 students achieved a Certificate IV. The respective numbers in 2015 were 2345 and 480.

The increased focus on VET as an element of the WACE requirements for students who are not on an ATAR pathway has resulted in an increased number of completions of VET certificates by Year 12 students.

## Literacy and numeracy (excluding international students)

- 21895 (93.9\%) of WACE eligible students demonstrated all three numeracy, reading and writing standards by the end of Year 12.

Growth in literacy and numeracy achievement in the first cohort from Year 9 (2013) to Year 12 (2016)

The tables below indicate the numbers and percentages of 2016 Year 12 students who:
(i) prequalified on the basis of their Year 9 NAPLAN results; and
(ii) qualified in a subsequent ONLA assessment in Years 10, 11 or 12.

Two tables are presented; the first includes all students who were registered with schools as Year 12 students in 2016 (includes students on notices of arrangement - often in training or workplace environments, students in CARE schools and education support centres, and students enrolled in engagement programs), and the second includes only those full-time students who were registered with schools and were eligible for a WACE (i.e. they had completed the required number of units (including list A and list B unit enrolments), and completed either four Year 12 ATAR courses or a Certificate II or higher.

Table 1: Year 12 registered students who achieved the literacy and numeracy standard (excluding international students)
$\left.\begin{array}{|l|c|c|c|c|c|c|}\hline \text { Population } \\ \mathbf{3 0 4 4 1}\end{array} \begin{array}{c}\text { Pre-qualified } \\ \text { (number) }\end{array} \quad \begin{array}{c}\text { Pre-qualified } \\ \text { (\%) }\end{array} \quad \begin{array}{c}\text { Achieved } \\ \text { through } \\ \text { OLNA } \\ \text { (number) }\end{array} \begin{array}{c}\text { Achieved } \\ \text { through } \\ \text { OLNA } \\ \text { (\%) }\end{array} \begin{array}{c}\text { Achieved } \\ \text { the } \\ \text { standard } \\ \text { (total } \\ \text { number) }\end{array} \quad \begin{array}{c}\text { Achieved } \\ \text { the } \\ \text { standard } \\ \text { (\%) }\end{array}\right]$

Table 2: Year 12 full-time WACE eligible students who achieved the literacy and numeracy standard (excluding international students)

| Population <br> $\mathbf{2 3} \mathbf{3 6 0}$ | Pre-qualified <br> (number) | Pre-qualified <br> (\%) | Achieved <br> through <br> OLNA <br> (number) | Achieved <br> through <br> OLNA <br> (\%) | Achieved <br> the <br> standard <br> (total <br> number) | Achieved <br> the <br> standard <br> (\%) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading | 11760 | 50.4 | 11088 | 47.5 | 22848 | 97.9 |
| Writing | 10020 | 43.0 | 12668 | 54.3 | 22688 | 97.3 |
| Numeracy | 11831 | 50.7 | 10536 | 45.2 | 22367 | 95.9 |
| All <br> components | 6556 | 28.1 | 15339 | 65.8 | 21895 | 93.9 |

The data indicates that for the WACE eligible students:

- the percentage of students demonstrating the reading standard increased from $50.4 \%$ to 97.9\%
- the percentage of students demonstrating the writing standard increased from $43.0 \%$ to 97.3\%
- the percentage of students demonstrating the numeracy standard increased from $50.7 \%$ to 95.9\%
- the percentage of students demonstrating all three standards of literacy (reading and writing) and numeracy increased from $28.1 \%$ to $93.9 \%$.

The steady improvement in the percentages of eligible students achieving the standards over the 2014-16 period is clearly evident in Figure 1. This improvement is due to the sustained efforts of schools and their teachers across the State who have embraced the importance of students developing satisfactory levels of literacy and numeracy as part of the WACE.

Figure 1: Improvement in literacy and numeracy achievement for the 2016 Year 12 cohort from 2013 to 2016




The reforms to the WACE announced in early 2013 were fully implemented for the first cohort of Year 12 students in 2016. These reforms were designed to improve standards of student achievement generally and to ensure that students were better prepared for subsequent educational pathways, whether in higher education or vocational education and training. An important aspect of the reforms was that students were required to demonstrate levels of literacy (reading and writing) and numeracy at, or above, Level 3 of the Australian Core Skills Framework. Our experience indicates that schools, teachers and students have responded in a very positive way to this challenge. The data provided in this paper indicates the very significant growth in this student cohort's levels of literacy and numeracy from 2013 to 2016.

## STEM Enrolments 2016

Students enrolled in four or more ATAR examinations - 13605 students
Mathematics

| Course enrolments | 1 course only |  | $\geq 2$ courses |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Course type |  |  |  |  |  |  |
| Mathematics ATAR | 10428 | $76.6 \%$ | 1756 | $12.9 \%$ | 12184 | $89.6 \%$ |
| Mathematics General | 517 | $3.8 \%$ | 0 | $0.0 \%$ | 517 | $3.8 \%$ |

Percentage of students enrolled in one or more mathematics courses is 93.4\%

## Science*

| Course enrolments | $\mathbf{1}$ course only |  | $\geq \mathbf{2}$ courses |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Course type |  |  |  |  |  |  |
| Science ATAR | 4679 | $34.4 \%$ | 4989 | $36.7 \%$ | 9668 | $71.1 \%$ |
| Science General | 141 | $1.0 \%$ | 0 | $0.0 \%$ | 141 | $1.0 \%$ |

Percentage of students enrolled in one or more science* courses is $72.1 \%$
Students enrolled in $\leq$ three ATAR examinations - 10047 students

## Mathematics

| Course enrolments | 1 course only |  | $\geq 2$ courses |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Course type |  |  |  |  |  |  |
| Mathematics ATAR | 1063 | $10.6 \%$ | 17 | $0.2 \%$ | 1080 | $10.7 \%$ |
| Mathematics General | 8601 | $85.6 \%$ | 1 | $0.0 \%$ | 8602 | $85.6 \%$ |

Percentage of students enrolled in one or more mathematics courses is $96.4 \%$
Science*

| Course enrolments | $\mathbf{1}$ course only |  | $\geq \mathbf{2}$ courses |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Course type |  |  |  |  |  |  |
| Science ATAR | 343 | $3.4 \%$ | 40 | $0.4 \%$ | 382 | $3.8 \%$ |
| Science General | 2451 | $24.4 \%$ | 124 | $1.2 \%$ | 2575 | $25.6 \%$ |

Percentage of students enrolled in one or more science* courses is $29.4 \%$ ( $3.8 \%$ in an ATAR science course and $25.6 \%$ in a General science course); additionally 3108 students ( $30.9 \%$ of this cohort) achieved a VET Certificate II or higher qualification classified as science-based (science, engineering, health and ICT).
*Science = Physics, Chemistry, Biology, Human Biology, Earth and Environmental Science, Integrated Science, Engineering Studies, Marine and Maritime Science

