



Government of  
South Australia



# SACE Stage 2 Review

September 2018



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# Recommendations

## The future of the compulsory Stage 2 10-credit Research Project

### Recommendation 1

All students select a compulsory Stage 1 10-credit unit from one of the following options:

- ▶ a university-oriented research project that could relate to subjects being studied or future career pathways
- ▶ a skills-based, vocational investigative project related to future pathways
- ▶ a service project involving leadership of a whole school or community event
- ▶ an entrepreneurial business project or social enterprise project or product-based project
- ▶ a personal interest (or 'passion') project.

### Recommendation 2

All students be offered the choice of an investigative project – rebuilt from the Research Project with a new subject outline and content, different assessment criteria, and new name – as a 20-credit Stage 2 subject.

*Note: This could be an extension of research in other subjects or be completely separate, or could articulate with the Stage 1 project (see recommendation 1).*

### Recommendation 3

The SACE Team's remit be expanded to enable the Team to work with school and sector leaders to develop a shared understanding of the optional Stage 2 Research Project (renamed) and to support the successful implementation of the new Stage 1 compulsory 10-credit project options.

### Recommendation 4

The SACE Board's remit be expanded to explore, with the universities, targeted support for students who choose the optional Stage 2 Research Project (renamed) i.e. university-facilitated massive open online courses (MOOCs), weighting for undergraduate entry, and providing these students with university mentors.

## The number of Stage 2 subjects for SACE completion and ATAR calculation

### Recommendation 5

With the proposed removal of the compulsory Stage 2 10-credit Research Project, the SACE Board maintains the requirement of three Stage 2 20-credit subjects plus 10 other Stage 2 credits (or other combinations of 10 and 20 credit subjects) for SACE completion and the Board recommends that students complete five Stage 2 20-credit subjects (or other combinations of 10 and 20 credit subjects) for an Australian Tertiary Admission Rank (ATAR)\* for university entrance.

## The ATAR calculation and impact on student subject choice

### Recommendation 6

The SACE Team work with the South Australian Tertiary Admissions Centre (SATAC) and the universities to develop direct entry processes for university undergraduate courses based on school grades and capabilities' evidence to ameliorate the negative impact of the ATAR on student subject selection.

## Vocational Education and Training (VET) recognition, delivery, and entrepreneurial thinking

### Recommendation 7

The SACE Team implement the following improvements related to the recognition of VET:

- ▶ actively promote the importance of VET qualifications as part of senior secondary pathways, and provide advice on the appropriate use of this flexibility.
- ▶ fine-tune the SACE VET Recognition Register to address the anomalies related to nominal hours and between-course differences
- ▶ develop a SACE completion package for VET results that occur after the SACE cut-off date and processes for 'banking' VET competencies in the SACE data bank

- ▶ allow students on a SACE completion pathway to count the literacy and numeracy components in their VET courses towards the compulsory requirements in SACE Stage 1
- ▶ shift the compulsory investigative project to Stage 1, thereby 'freeing up' space at Stage 2 and offering a skills-based, industry-focused investigative option for students who are on a vocational pathway
- ▶ revitalise the Personal Learning Plan to create a personalised 'learning trajectory' for each student that includes awareness of future industry shortages, planning career pathways within the seven future job clusters (Foundation for Young Australians [FYA] 2018, p 21), and the steps to achieve SACE completion
- ▶ help students, families, and schools to make better-informed choices by developing subject packages for different types of employment that demonstrate how vocational options connect with appropriate SACE subjects and SACE flexibilities.

*Note: These packages would include, for example, the new concept of Industry Framework subjects (see recommendation 12), the proposed Stage 1 skills-based vocational investigative project, Workplace Practices, Cross-disciplinary or Scientific Studies.*

## Recommendation 8

The SACE Team implement the following improvements designed to make apprenticeships and traineeships more attractive to young people:

- ▶ actively promote apprenticeships and traineeships (particularly in the areas of industry skills shortages) as an important part of the senior secondary pathway, and highlight the links between these options and future career choices
- ▶ offer a skills-based, industry-focused Stage 1 investigative option (see recommendation 1) for students who are on a vocational pathway

*Note: Shifting the compulsory investigative project to Stage 1 will 'free up' space at Stage 2 for students to pursue apprenticeships and traineeships.*

- ▶ develop a SACE completion package that allows students undertaking traineeships and apprenticeships to register with SACE so that the SACE Team can monitor their SACE completion beyond school
- ▶ allow students to count the literacy and numeracy components of their apprenticeship or traineeship courses towards the compulsory requirements in SACE Stage 1
- ▶ work with industry and other government departments to develop initiatives such as 'taster' courses, allocating SACE credits for a student's progression towards the completion of an apprenticeship or traineeship, and micro-credentialing to create 'packages' for students who are considering apprenticeships or traineeships.

## Recommendation 9

The SACE Team work with SATAC and the universities to remove the option of using a VET Certificate III to contribute towards the ATAR.

*Note: If the direct entry processes outlined in Recommendation 6 are implemented then universities could choose to recognise relevant VET qualifications as part of entry to particular courses.*

## VET quality, auspicing, and delivery

### Recommendation 10

The Minister establishes a comprehensive and independent inquiry to review VET quality, auspicing, and delivery; to make recommendations to address the ongoing concerns; and to report within 12 months.

## Entrepreneurial education in VET and SACE

### Recommendation 11

The SACE Board accelerates the introduction of entrepreneurial thinking and learning into all subject renewal processes, particularly in the assessment components.

### Recommendation 12

The SACE Board partners with schools and industry to develop Industry Framework subjects that enable entrepreneurial learning in response to technical, social, and scientific challenges (e.g. cyber security, healthy ageing, the defence industry, recycling).

### Recommendation 13

The Chief Executive of the SACE Board provides expert advice in partnership with the Department for Education for the Entrepreneurial Schools project and to develop a South Australian concept of entrepreneurial learning for use in all government schools.

## Issues from the Review processes for consideration by the SACE Board

### Recommendation 14

The SACE Board implements the following actions to address the issues raised in the Review:

- ▶ reconceptualise the SACE Board's role in delivering leadership for SACE changes in partnership with the schooling sectors and school leaders
- ▶ abandon the practice of allowing D and E grades to earn SACE credits, and substitute micro-credentialing for small units of learning
- ▶ entwine SACE capabilities with deep discipline knowledge in curriculum delivery and pedagogy
- ▶ require fewer, but richer and deeper assessment tasks that challenge students' thinking, and other assessment improvements related to the number and language of the performance standards, reconceptualised examinations, and reducing the amount of subject content
- ▶ reconceptualise the assessment components in Stage 1 literacy and numeracy requirements to capture the degree to which students can transfer the outcomes into other subjects and settings
- ▶ equally weight Stage 1 literacy and numeracy requirements at either 10 or 20 credits each.

### Recommendation 15

The SACE Board reports Year 12 completion rates against the Year 10 PLP enrolments and works in partnership with the Minister and the Department for Education to explore micro-credentialing and other approaches that could contribute to improved SACE completion for all South Australian students.

### Recommendation 16

The SACE Board works in partnership with the state government, schooling sectors, universities, and other organisations with relevant expertise to research the following issues to determine the causes and possible solutions:

- ▶ the stress levels and wellbeing of senior secondary students
- ▶ SACE curriculum design that enables the capabilities to entwine with deep discipline knowledge
- ▶ pedagogy that develops in students the skills for effective 'transfer of knowledge' from familiar to unfamiliar settings
- ▶ low SACE completion rates achieved by specific cohorts such as rural and remote students, students with disabilities who are not eligible for a modified curriculum, and refugees
- ▶ The complexity and special needs of English as an Additional Language or Dialect (EALD) learners
- ▶ gender differences in SACE tasks and results.



**In 2018, the South Australian Certificate of Education (SACE) needs to develop in all our young people deep discipline knowledge, the capacity for continuous learning, the understandings of the changing world, and the skills to get the jobs of the future, as well as the entrepreneurial thinking to create new jobs. The purpose of the SACE Review (2018) is to continue to improve the SACE that is currently being undertaken by approximately 63000 senior secondary students in South Australia, Northern Territory, and parts of Malaysia, Vietnam, Vanuatu and China. The Review specifically examines how to make SACE Stage 2 even better and how to ensure that all students enrolled in the Personal Learning Plan (PLP) in Year 10 complete their SACE in Year 12/13 and successfully pursue their vocational and/or university pathways.**

The challenge beyond the remit of this review is how the SACE Board can work collaboratively with the three schooling sectors and the state government to engage students who are in the age demographic yet do not appear in the SACE data. In the short term this means that every student who enrolls for Year 10 will be carefully tracked to ensure that they graduate with a SACE certificate 3 or 4 years later. In the longer term, it means that key stakeholders must work together to understand the reasons why various cohorts do not appear in the Year 10 data, and contribute intelligent strategies to change these patterns (see Section 4 for recommendations).

The SACE is the end game for 11, 12, or 13 years of formal schooling and as such, it provides the passport from school to employment, further training, and university. Almost all of the 1539 survey respondents, numerous submissions, and multiple consultation participants reported that the SACE is working well for most students. Respondents appreciated SACE's flexibility, its 'single certificate' concept, and the SACE Board's commitment to enabling all young South Australians to achieve a certificate that captures the outcomes of their secondary school completion. The highly valued SACE flexibility includes vocational education and training (VET) qualifications; recognised prior learning; community service with groups such as St John Ambulance, Country Fire Service, and Australian Army or Air Force Cadets; learning undertaken outside school; and subjects from other world-class certificates such as the International Baccalaureate Diploma.

The SACE needs to enable families, employers, and universities to infer what the student knows and can transfer to a setting beyond school. As such, there is no need for ranking or competition. This personalised statement provided by the SACE of what a young person has achieved from over a decade of formal learning is at the heart of the mantra 'Success for all'.

Some respondents understood this concept as meaning reducing expectations to the lowest standard possible. The concept actually means having a certificate so cleverly designed that its flexible pathways can challenge students at all different levels of development to achieve their best outcomes. The SACE Board and school leaders need to ensure that the SACE pathways stretch every student to demonstrate what they know — and what they can do with what they know — in non-routine ways and in complex and unfamiliar settings (Mavarech & Kramarski 2014). This will equip our young people and our state to thrive in a rapidly changing world where artificial intelligence, automation, and globalisation are precipitating dramatic social and economic changes.

The Review recommendations are based on a 2018 view of what senior secondary rigour needs to look like for this generation of students and a new approach to teaching and learning that develops both deep discipline knowledge and relevant capabilities.

This new rigour demands that deep discipline knowledge is delivered using an inquiry approach by subject specialists, against a backdrop where students have access to unthinkable amounts of information on their smart devices and where we are all grappling with the breathtaking pace of new information, instant feedback on social media, and the ethics of 'fake news'. It also requires skilled senior secondary teachers to design learning challenges that require students to personalise their learning using their knowledge in unfamiliar and non-routine ways and knowing what to do when the answer is ambiguous or not immediately apparent. The sophisticated capabilities that enable students to transform knowledge from the known situation to the unknown need to be developed throughout the schooling years and finally captured in their SACE for students to use with employers and for university/TAFE SA entrance. Other States and Territories achieve this learning continuity through an R-12 Curriculum Authority.

“

The world no longer cares how much you know; the world cares about what you can do with what you know.

Wagner, 2012

”

Senior secondary teachers and school leaders have always understood the importance of deep discipline knowledge, and many understand the need to develop within their students the capabilities to apply knowledge in different ways to previous decades. Many experienced practitioners have not been able to implement the capabilities effectively for a variety of reasons. Perhaps they have not been provided with sufficient support and direction from education authorities to let go of the familiar and venture into new territory and, as such, they have not developed confidence and competence in this area. Content-heavy curricula with 'added on' capabilities leave no space for sophisticated capability development, and the transmission-style delivery favoured in senior school is not conducive to developing active learners who can seek out challenges and transfer their knowledge accordingly.

This SACE Review is timely in that some states are reviewing or planning to review their curricula. *Through growth to achievement: the report of the review to achieve educational excellence in Australian schools* (or the 'Gonski Report') presented a strong case for a national review of senior secondary education because 'despite many attempts, over several decades ... to address the issues around the curriculum and delivery structure for Years 11 and 12, the situation remains unsatisfactory' (Department of Education and Training 2018, p 53). The Report recommended more flexible, personalised curricula; increased use of inquiry-based, cross-subject learning and integrated models for apprenticeships/internship/work experience; ways to incorporate and prioritise general capabilities; better-informed career advice; and stronger engagement with industry, both within and beyond VET (Department of Education and Training 2018, p 54). In many ways, some recent developments in the SACE are well aligned to the Gonski Report, but the recommendations from this SACE Review address a number of the outstanding concerns, thus positioning South Australia strongly for this national discussion.

In the report *The new work reality*, the Foundation for Young Australians (FYA) recommended that, to address the challenges facing our young people in a future in which there are rapidly decreasing numbers and lower proportions of low-skill and routine jobs, senior secondary curricula and delivery need to educate beyond knowledge-based domains and focus on building a broader set of skills and capabilities (p 31). The FYA concluded that today's 15-year-olds will likely navigate 17 changes in employer across five different careers, and that jobs requiring non-routine skills are on the rise. These unparalleled changes mean that the senior secondary schooling that served their parents and grandparents well in more stable contexts will no longer equip our young people to thrive in this contemporary world. Traditional full-time work is becoming increasingly out of reach for young people (p 8), with half of Australia's 25-year-olds not yet in full-time work (some are still studying; some are in part-time work) and 18% of those in full-time employment actually working multiple part-time jobs while 21% are employed casually (pp 10–13).

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**So what is needed in South Australia to position our young people for successful futures and our state for best use of its human capital?**

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Deep discipline knowledge traditionally associated with senior secondary is important, but more than deep knowledge is needed to equip our young people to thrive in a rapidly changing environment where information is at everyone's fingertips. Teaching and learning in the senior years must evolve to support and challenge students to develop deep knowledge entwined with the capabilities to apply that knowledge in the world beyond school. As part of contemporary employment and university entry requirements, students need to curate their capabilities alongside their knowledge evidence — perhaps using an app on their smart phones — and to have this evidence verified by a suitable source such as teachers and then certified by SACE. South Australian students need to be equipped to become the 'T-shaped' learners identified by our Chief Scientist Dr Alan Finkel (July 2018)



in his address 'Raising twenty-first century citizens'. He talks about the T-shaped learner/worker where '... the vertical line stands for deep expertise in a discipline and the horizontal bar stands for the flexibility to apply that expertise creatively, as part of a team in a workplace, and to develop new skills as opportunities present' (Finkel 2018).

To develop our 'T-shaped' learners, Year 12 needs to become less of a mad dash from assessment deadline to assessment deadline — often requiring over 40 tasks to be completed in fewer than 30 weeks. Space needs to be provided in a content-heavy senior curriculum for students to do more thinking, collaborating, experimenting, testing ideas, failing, and trying again, as they have done in their earlier years of schooling. Teachers need to be supported and challenged by continuous professional learning and reconceptualised SACE subject outlines to evolve their pedagogy from a content-driven, teacher-centred approach into an inquiry-based, teacher-enabled personalised approach. Senior students have responsibility — as they have had for decades — for developing their deep discipline knowledge. In addition, they have the responsibility for developing sophisticated capabilities that enable this knowledge to be transferred to unfamiliar settings and non-routine ways of working, as required in the rapidly-transitioning world beyond school.

To get the best outcomes for young people, the SACE Team will need to work with leaders across the three schooling sectors to translate the proposed changes into effective school practices that accurately reflect the original intentions (see Section 4 for recommendations). Teachers and leaders will need collaborative partnerships with the SACE Team to develop the understandings, knowledge, and skills needed to commit to, and to confidently lead, the proposed changes with their communities. Effective communications and change leadership from the SACE Board will help students, families, and communities understand how the proposed changes will better equip young people to thrive in the world of the future.

The following sections of this report address the specific terms of reference of the Review, that is, the number of subjects for Stage 2 SACE completion and for attaining an ATAR, the future of the Research Project as a compulsory 10 credit Stage 2 offering, and VET recognition and delivery. It also offers a range of additional SACE improvements, which are outside the terms of reference, for the SACE Board's consideration. These improvements have emerged from the Review processes and they are an important part of reconceptualising SACE in the context of the new rigour and personalised learning to better challenge all students to achieve their best outcomes.



**Wendy Johnson**

SACE Reviewer  
September 2018

“

Teach how to live  
without certainty  
and yet without  
being paralysed by  
hesitation.

**Russell, 1946**

”

# The future of the compulsory Stage 2 10-credit Research Project; the number of Stage 2 subjects for SACE completion and ATAR calculation

## The future of the compulsory Stage 2 10-credit Research Project

As a compulsory 10-credit requirement at Stage 2, the Research Project impacts on the required number of Stage 2 subjects, i.e. usually three 20-credit subjects at C- or better plus the Research Project for South Australian Certificate of Education (SACE) completion, and essentially four 20-credit subjects at C- or better plus the Research Project for the ATAR. Therefore, any recommendation about the number of Stage 2 subjects needs to begin with the Research Project, which was introduced in 2011 and effectively replaced the fifth Stage 2 subject in many schools (Cossey et al. 2012).

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For most of us the problem isn't that we aim too high and fail - it's just the opposite - we aim too low and succeed

Robinson, 2009

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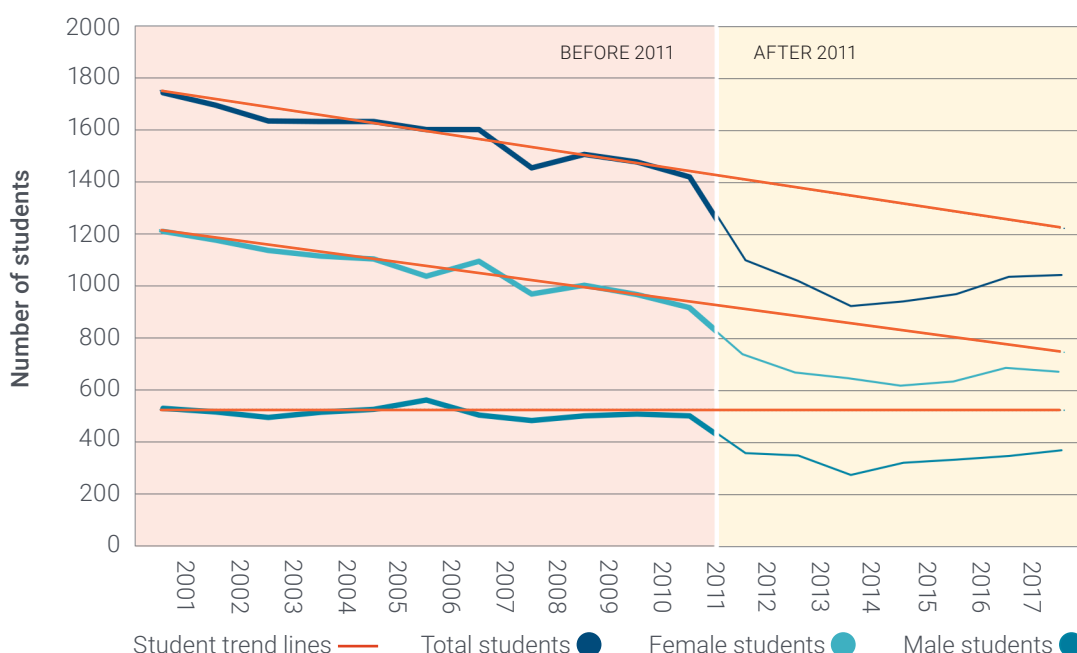
This change in the prevalent pattern of Stage 2 subjects reduced the enrolments in a number of subjects, and some subjects felt it more than others. Additionally, the removal of the requirement for students to study a language-rich subject and a technical subject at Stage 2 gave students greater choice, but may have also had an impact on the enrolments in some subjects. Many submissions to the review identified the drop in student enrolments in languages, the humanities, and to a lesser extent the arts and design subjects, as a concern in the current SACE.

SACE completion data for languages confirm that a drop occurred in the number of students studying these subjects when SACE changed in 2011, and a slow recovery of numbers has been occurring since 2013 (see Figure 1).

A number of other factors also influence the uptake of languages subjects. For example, there is an underlying decline in languages enrolments, characterised by a 22% drop in numbers during the 10 years to 2011. Over this decade, the number of male students studying languages held steady and almost the entire decline was in the number of female students. This suggests that, in addition to the structure of SACE, other factors are at work that seemed to disproportionately affect females. The hypothesis is that females chose science, english and mathematics subjects while abandoning languages.



FIGURE 1: LANGUAGES COMPLETION DATA 2001–2017



The Research Project was conceived as a capstone project which provided an opportunity for students to follow their passions — to show that they know how to conduct themselves as independent learners, and that they can think critically and creatively and demonstrate other capabilities. It was part of a worldwide trend to include an investigative project in senior secondary qualifications. In the International Baccalaureate Diploma, this project takes the form of a 4000-word extended essay. In parts of the USA, this project has become a 'rite of passage,' showcased to the community to demonstrate everything students have learnt in their previous years of formal schooling. In Singapore and the United Kingdom, this concept is well-established. Other states in Australia are currently following South Australia's lead by introducing investigative projects.

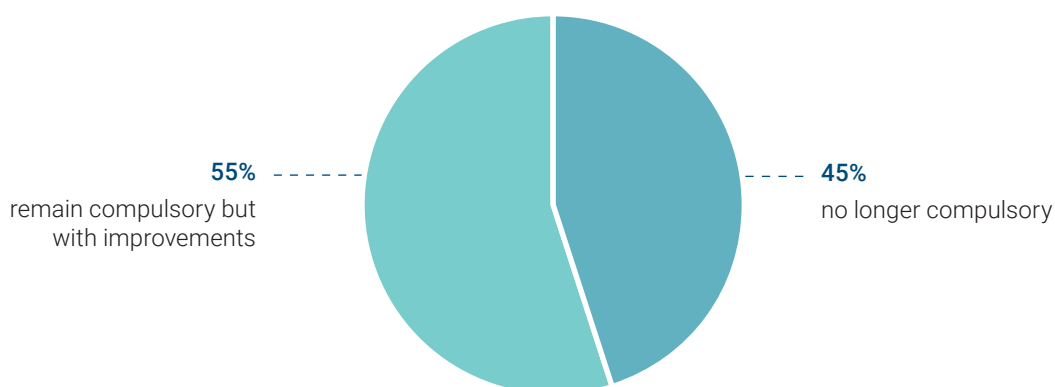
In 2017 Flinders University trialled allocating a weighting of 40% of the total university entrance criteria (leaving 60% for the ATAR) to the Research Project because of the perceived correlation between success in the Research Project and the independent learning required for first-year university completion. The trial will need several more years to test the correlation between the Research Project and young people successfully completing their undergraduate studies. Principals would like to see a similar entry option offered by all South Australian universities to students who choose to undertake a final-year investigative project that demonstrates their capabilities as independent learners.

The value of the Research Project from the current perspectives of teachers, leaders, and students is that it develops the skills of students to work as independent learners on a personal knowledge quest researching an area of interest within a particular timeframe. It makes a powerful statement that every Stage 2 student is capable of delivering this outcome, which in turn challenges the low expectations that some school personnel have of some students. The Research Project takes seriously students' responsibility for their learning by offering complete freedom of choice of topic. It also provides the opportunity for students to demonstrate a sophisticated understanding of the growth in their capabilities. It enables students to become more critical consumers of internet-sourced information while also developing their research and literacy skills.

When the Research Project was launched into the content-driven, teacher-directed senior secondary environment, its difference excited some and dismayed others. Its strengths were also its challenges, for example the freedom of choice that engaged many students paralysed others. The Review responses reflected this division, with some respondents being passionate supporters and others equally vocal opponents. Some respondents who wanted the Research Project abandoned as a compulsory requirement noted that they had also provided the same information to the 2012 SACE First Year Evaluation (Cossey et al. 2012).



**FIGURE 2: RESPONDENTS' PERCEPTIONS OF THE RESEARCH PROJECT AS A COMPULSORY STAGE 2 REQUIREMENT**

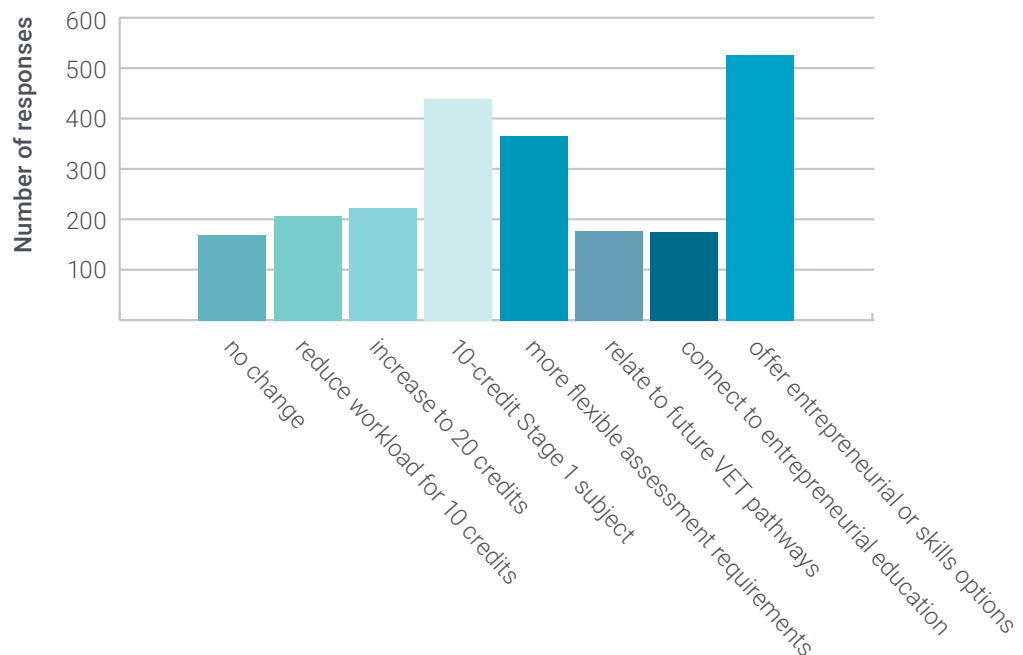


Overall, 45% of respondents to the survey thought that the Research Project should not be compulsory at Stage 2 (see Figure 2) and 51% of students, families and teachers of subjects other than the Research Project supported it no longer being a compulsory requirement for Stage 2. School principals and teachers of the Research Project were more positive about the subject. Others suggested that it needed to be offered alongside entrepreneurial and skills-based options. Principals and Research Project teachers were supportive of the Research Project remaining in its current form, but being improved. They too wanted to see it offered alongside entrepreneurial and skills-based options. Most respondents were also open to the idea of the Research Project being compulsory at Stage 1 if improvements were made in the assessment requirements to avoid formulaic structures and the disproportionate workload required for a 10-credit subject.

Many respondents highly valued the Research Project's intention, but almost all agreed that improvements were needed, particularly in relation to its compulsory nature, assessment practices, formulaic delivery, and high workload for 10 credits (see Figure 3). Some wondered whether the Research Project could now move to a new iteration if all subjects were being reconceptualised to foreground the capabilities. All agreed that a name change for a redeveloped 'next generation' investigative project would be helpful and that a range of options would enable better access for all students. Many believed that the Research Project's implementation had deviated from its original conceptualisation as a passion project and had become a compliance activity. Although it was the intention with the introduction of the Research Project to limit investigations in other subjects, over the ensuing years they have become required in most subjects (for a range of reasons). The similarity of this assessment type across different subjects does not contribute positively to challenging or extending learning. Students and families also noted the impact of all these investigations on student workload and wellbeing.



**FIGURE 3: PREFERRED FUTURE OPTIONS FOR THE RESEARCH PROJECT**



Another issue identified by respondents was the formulaic approach practised in many schools where teachers, with the best intentions, developed strategies to support all students to complete this compulsory requirement. The unintended consequence was a standardisation that ran counter to the passion project concept. Professor Marie Brennan's 2012 prediction that, after a few years 'teachers would tame the experience and undermine one of the subject's strengths' (Inglis 2013 p 71) occurred in many settings. Some schools were honouring the original Stage 2 placement while many others offered it in Year 11, thus enabling more space for students to undertake a wider range of Year 12 subjects. Some respondents saw the variation in delivery as a strength, but the majority perceived this as causing an inequitable impact on students' subject choice and workload.

Although the two variations of the Research Project (A and B) offer great flexibility, the full range of this flexibility seemed not to be well understood by many teachers, moderators, and assessors. As a result, the Research Project was seen by many to favour students aiming for university who could produce written reports, and those with strong networks of useful contacts. Students on a vocational pathway; students who are less advantaged; and students with restricted networks, learning difficulties, language restrictions, or a creative approach to multimodal presentations were all seen as being disadvantaged. The assessment tasks were also seen as contributing to the formulaic criticism.

The following recommendations have been distilled from the survey respondents, the submissions, and the consultations. They offer a way of conceptualising the next iteration, which values the strengths of the Research Project while incorporating the ideas for improvement and solutions to address inequities.



### Recommendation 1

All students select a compulsory Stage 1 10-credit unit from one of the following options:

- ▶ a university-oriented research project that could relate to subjects being studied or future career pathways
- ▶ a skills-based, vocational investigative project related to future pathways
- ▶ a service project involving leadership of a whole school or community event
- ▶ an entrepreneurial business project or social enterprise project or product-based project
- ▶ a personal interest (or 'passion') project.



### Recommendation 2

All students be offered the choice of an investigative project — rebuilt from the Research Project with a new subject outline and content, different assessment criteria, and new name — as a 20-credit Stage 2 subject. This could be an extension of research in other subjects or be completely separate, or could articulate with the Stage 1 project (see recommendation 1).



### Recommendation 3

The SACE Team's remit be expanded to enable the Team to work with school and sector leaders to develop a shared understanding of the optional Stage 2 Research Project (renamed) and to support the successful implementation of the new Stage 1 compulsory 10-credit project options.



### Recommendation 4

The SACE Board's remit be expanded to explore, with the universities, targeted support for students who choose the optional Stage 2 Research Project (renamed) i.e. university-facilitated massive open online courses (MOOCs), weighting for undergraduate entry, and providing these students with university mentors.

## The number of Stage 2 subjects for SACE completion and ATAR calculation

Respondents supported three Stage 2 20-credit subjects (plus 10 Stage 2 credits) at C- grade or better (or other combinations of 10 and 20 credit subjects) as appropriate for the SACE completion within the overall requirement of 200 credits. However, some school leaders, teachers, and families expressed concern that this number of subjects created a sense of part-time schooling and has led to increased attendance issues and disengagement. Others appreciated the original intention to make time in students' busy lives for family commitments, part-time work, sporting and artistic pursuits, and leisure. For students on a vocational pathway and/or undertaking a traineeship or apprenticeship, it was suggested that the SACE Board explore the concept of 10-credit Stage 2 units that could be 'stacked' to create the necessary 70 credits. It was suggested that the SACE also needs to provide more appropriate recognition for traineeships and apprenticeships (see Section 3).

For students aiming for an ATAR, the removal of the compulsory Stage 2 10-credit Research Project will mean that they will need to choose five Stage 2 subjects to complete 90 Stage 2 credits with a student's least successful subject only counting as half the weighting of their other subjects. Many schools currently require their Year 12 students to study five subjects (that may or may not include the Research Project) so for these schools there will be little change. Freeing up the fifth Stage 2 subject 'space' by the removal of the compulsory Research Project may increase the enrolments in languages, humanities and the arts. Other strategies for increasing enrolments could be investigated as part of SACE subject renewal processes.

Respondents generally valued student choice and flexibility over compulsory subjects at Stage 2, but there were those who proposed a required framework of English, and one subject from each of the arts/humanities/Physical Education, languages, mathematics, and sciences in order to provide what they perceived as a more 'balanced' senior secondary education. The Review, however, supported Stage 2 choice and flexibility as part of personalised learning in order to achieve the best level of engagement possible for young people. Some respondents felt the need to make Stage 2 English compulsory, as happens in some other jurisdictions. Interestingly, respondents who felt that the required nature of the Research Project detracted from its delivery often suggested compulsory combinations for other subjects. Again, the Review supported choice and flexibility within the contexts of providing the best possible advice to students and families and encouraging universities to revisit prerequisites. Students and families reported that they would benefit from the SACE Board providing consistent expert advice to all students about subject selection.

As part of this advice, students and families could be asked to consider what constitutes a 'balanced' subject selection and what 'balance' might look like within each student's personalised selection (rather than mandating certain patterns).



### Recommendation 5

With the proposed removal of the compulsory Stage 2 10-credit Research Project, the SACE Board maintains the requirement of three Stage 2 20-credit subjects plus 10 other Stage 2 credits (or other combinations of 10 and 20 credit subjects) for SACE completion and the Board recommends that students complete five Stage 2 20-credit subjects (or other combinations of 10 and 20 credit subjects) for an Australian Tertiary Admission Rank (ATAR)\* for university entrance.

\* <http://www.satac.edu.au/calculating-the-university-aggregate-and-atar>

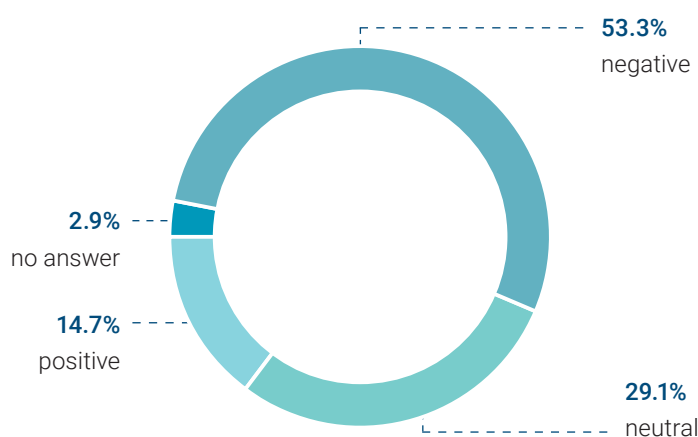


## The ATAR calculation and impact on student subject choice

The ATAR itself is outside the terms of reference of this Review (see Appendix A) and the SACE Board's remit, but it dominated the feedback because it was perceived as having such a negative impact on student subject selection and wellbeing. Almost all respondents saw the SACE and ATAR requirements as being the same thing or simply failed to distinguish that the two processes belong to different organisations (i.e. the SACE Board and SATAC). There was an overwhelming consensus across all groups about the negative impact of the ATAR on student choice and learning (see Figure 4).



FIGURE 4: PERCEIVED IMPACT OF ATAR STUDENTS' SUBJECT CHOICES



Other organisations such as the NSW Education Standards Authority have also identified and are investigating the negative impact of the ATAR on student subject choice. In the Review processes, many examples were provided about students being more concerned with getting the best possible score in their ATAR rather than with their learning or effective preparation for their future university courses. Academically able students were identified by families, teachers, and principals — as well as students themselves — as choosing the easiest possible subjects to get the best results for their ATAR rather than choosing subjects that will challenge them, or that they enjoy, or that will provide the foundations for their university courses. This particularly impacts on mathematics, arts, languages, and sciences, which are important to our future workforce and the aspirations of our state.

Students making inappropriate choices to get the best ATAR possible, coupled with universities abandoning prerequisites, have contributed to an unproductive situation where students with very high ATARs are doing

foundation or bridging courses prior to starting their university courses. This situation is likely to be contributing to the non-completion rate of first-year university students because students do not have the background to succeed in the courses. Dr Alan Finkel refers to 'ATAR gaming' and how universities have been allowed to remove prerequisites, noting that this has resulted in large cohorts of students arriving at universities without the foundations to last beyond their first semester (Finkel 2018, p 12). Principals, business organisations, and universities were all very concerned about our 'best and brightest' taking less challenging options. The Gonski Report (Department of Education and Training 2018) identified the under-challenge of our most academically capable students as a national concern, impacting on Australia's productivity and our international reputation as a provider of high-quality education. Another issue raised by families and principals related to students who hadn't sought an ATAR, but who, because of their C grades and subject choices, found themselves with a confidence-destroying ranking.

Business organisations, vocational training providers, and school leaders were concerned that VET qualifications with no connections to students' future pathways were being inappropriately counted towards the ATAR as a fourth subject (see Section 3 for a more detailed discussion).

During this SACE Review, it became apparent that the university entry system is in transition from 'ATAR only' to a combination of ATAR and early offers based on grades and evidence of capabilities, service, etc. Early offers are currently being made by universities to Year 11 students in some schools to continue high-end science and mathematics courses in Stage 2 rather than abandon these subjects for less demanding ones in order to protect their ATAR. Providing the students achieved an A or B in these subjects in Stage 2, the offer held regardless of the student's ATAR. This excellent initiative needs to be built upon for all South Australian schools, as part of our state seizing the opportunity for national leadership in this area.



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### **Recommendation 6**

The SACE Team work with the South Australian Tertiary Admissions Centre (SATAC) and the universities to develop direct entry processes for university undergraduate courses based on school grades and capabilities' evidence to ameliorate the negative impact of the ATAR on student subject selection.

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# VET recognition, delivery, and entrepreneurial thinking

## VET recognition in SACE

The survey respondents, submissions, and consultation participants highly valued the recognition of vocational education and training (VET) as part of the South Australian Certificate of Education (SACE), and there was overwhelming support to maintain the status quo for VET recognition (albeit with some internal improvements) or increase it (see Figure 5). Most respondents appreciated the fact that VET is included as part of SACE credentialing rather than as a separate certificate. Many respondents reported that to make VET courses more attractive to young people, better promotion and recognition of the role of VET as a valuable contributor to senior secondary education needed to occur within the SACE Board and school communications. Some suggested that students needed to build a 'learning trajectory' of their VET opportunities as part of considering their future pathways within the Personal Learning Plan (PLP) undertaken in Year 10. Business and industry consultations revealed that it was time to revitalise the PLP to include a clearer focus on future industry shortages, planning career pathways within the seven future job clusters (FYA 2018, p 21), and the steps to achieve SACE completion. Others felt that Year 10 was too late and that students in Year 9 needed to learn about VET opportunities and to begin VET courses depending on their 'learner readiness'.

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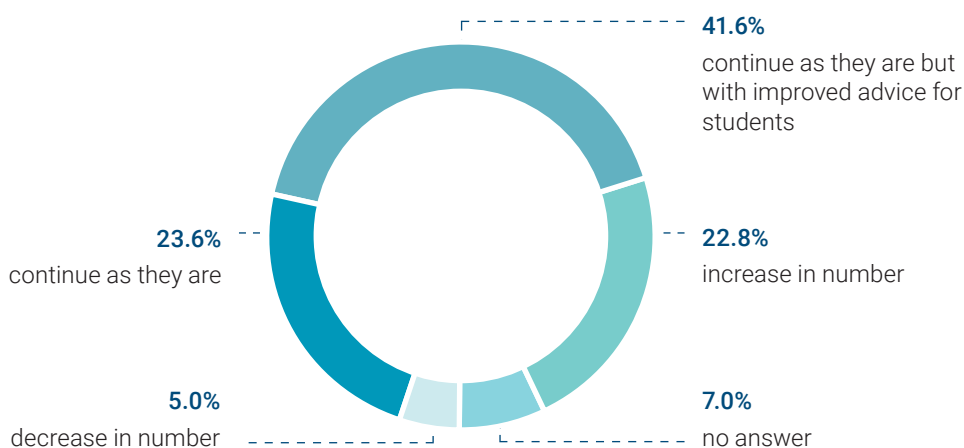
Entrepreneurial learning is important because it is a way of equipping our young people to positively approach the challenges of a rapidly evolving culture.

Anderson, Hinz and Matus, 2017

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FIGURE 5: VET IN SACE OPTION PREFERENCES



Respondents saw the inappropriate use of VET qualifications— where they were not related to future career pathways— as a waste of limited vocational training resources. This waste is happening in two ways: students at risk of not completing the SACE, and students who 'credit harvest' VET towards an improved ATAR. Business representatives and vocational education providers were concerned that VET qualifications are being used as 'fillers' or 'rescue packages' to enable SACE completion despite having no pathway in the student's future and the possibility of wasting the student's training entitlements.

This feedback was provided against a backdrop of insufficient skilled labour for the state's growing defence, space, and other industries. Respondents wanted students, families, and schools to be given better advice about VET qualifications and future pathways, particularly those related to predicted industry shortages.

Respondents supported VET qualifications as being very useful for students aiming for university when related to future pathways, but there was strong concern about students counting towards their ATARs VET qualifications that bore no relationship to their future pathways. In some instances, students are using their VET Certificate III as the equivalent of a fourth Stage 2 subject, often undertaken in Year 11. These students then have the advantage of only doing three subjects at Stage 2 (with the VET qualifications counting as the average of the grades in the other three Stage 2 subjects). Again, using VET qualifications that are unrelated to future pathways in order to improve an ATAR was seen as 'gaming the system', as well as working against students making a broader subject choice and having more challenging learning experiences that would better equip them for their university courses.

Other improvements seen as important by respondents included: reviewing the SACE VET Recognition Register to address 'nominal hours' and the anomalies that exist currently between the demands of the various Certificate III courses, and the recognition of the literacy and numeracy components in VET qualifications. Respondents provided detailed analysis demonstrating how some Certificate II courses were more worthy than some Certificate III courses of Stage 2 recognition. They also wondered about the possibility of recognition of part-time work beyond the Workplace Practices subject, and advocated for VET achievements to be recognised at the SACE Merit Ceremony.

Teachers, school leaders, and families also raised the following additional concerns: VET results not being able to be 'banked' in the SACE Board's data system, thus preventing students from choosing at which level they wanted to count them; VET results not being provided in time for SACE results release; and apprenticeships in particular being completed after students had left school, resulting in an incomplete SACE. Respondents proposed the development of a SACE completion package for students undertaking VET courses, traineeships, and apprenticeships that would enable students to 'bank' their VET results directly with SACE, and the SACE Board taking on the responsibility for following up on young people doing traineeships and apprenticeships to support them to complete their SACE.

The SACE Team can help the state government to increase the uptake of apprenticeships by promoting vocational options as an important part of the senior secondary pathway and highlighting the links between these options, future career choices, and industry shortages. Allocating SACE credits for a student's progression towards the completion of apprenticeships and traineeships (e.g. at the end of the first year) could act as a powerful incentive, and consideration could be given to recognising part-time work related to the student's career pathway. The SACE Team could work with industry and other government departments to identify 'taster courses' for students contemplating apprenticeships or traineeships, and to use micro-credentialing to accredit clusters of skills from different certificates to form 'pathways' for students. These initiatives could complement the emerging concept of Industry Framework subjects and the reconceptualised Stage 1 industry-focused project.



## Recommendation 7

The SACE Team implement the following improvements related to the recognition of VET:

- ▶ actively promote the importance of VET qualifications as part of senior secondary pathways, and provide advice on the appropriate use of this flexibility
- ▶ fine-tune the SACE VET Recognition Register to address the anomalies related to nominal hours and between-course differences
- ▶ develop a SACE completion package for VET results that occur after the SACE cut-off date and processes for 'banking' VET competencies in the SACE data bank
- ▶ allow students on a SACE completion pathway to count the literacy and numeracy components in their VET courses towards the compulsory requirements in SACE Stage 1
- ▶ shift the compulsory investigative project to Stage 1, thereby 'freeing up' space at Stage 2 and offering a skills-based, industry-focused investigative option for students who are on a vocational pathway

- ▶ revitalise the Personal Learning Plan to create a personalised 'learning trajectory' for each student that focuses on future industry shortages, planning career pathways within the seven future job clusters (Foundation for Young Australians [FYA] 2018, p 21), and the steps to achieve SACE completion
- ▶ help students, families, and schools to make better-informed choices by developing subject packages for different types of employment that demonstrate how vocational options connect with appropriate SACE subjects and SACE flexibilities.

*Note: These packages would include, for example, the new concept of Industry Framework subjects, the proposed Stage 1 skills-based vocational investigative project, Workplace Practices, Cross-disciplinary or Scientific Studies.*



## Recommendation 8

The SACE Team implement the following improvements designed to make apprenticeships and traineeships more attractive to young people:

- ▶ actively promote apprenticeships and traineeships (particularly in the areas of industry skills shortages) as an important part of the senior secondary pathway, and highlight the links between these options and future career choices
- ▶ offer a skills-based, industry-focused Stage 1 investigative option (see recommendation 1) for students who are on a vocational pathway

*Note: Shifting the compulsory investigative project to Stage 1 will 'free up' space at Stage 2 for students to pursue apprenticeships and traineeships*

- ▶ help students, families, and schools to make better-informed choices by developing subject packages for different types of employment that demonstrate how vocational options connect with appropriate SACE subjects and SACE flexibilities

*Note: These packages would include, for example, the new concept of Industry Framework subjects, the proposed Stage 1 skills-based vocational investigative project, Workplace Practices, Cross-disciplinary or Scientific Studies*

- ▶ develop a SACE completion package that allows students undertaking traineeships and apprenticeships to register with SACE so that the SACE Team can monitor their SACE completion beyond school
- ▶ allow students who are on a SACE completion pathway to count the literacy and numeracy components of their apprenticeship or traineeship courses towards the compulsory requirements in SACE Stage 1
- ▶ work with industry and other government departments to develop initiatives such as 'taster' courses, allocating SACE credits for a student's progression towards the completion of an apprenticeship or traineeship, and micro-credentialing to create 'packages' for students who are considering apprenticeships or traineeships.



## Recommendation 9

The SACE Team work with SATAC and the universities to remove the option of using a VET Certificate III to contribute towards the ATAR.

*Note: If the direct entry processes outlined in Recommendation 6 are implemented then universities could choose to recognise relevant VET qualifications as part of entry to particular courses.*

## VET quality, auspicing, and delivery

**These areas are outside the SACE Board's remit, but many respondents commented at length on the negative impact of VET quality, auspicing, and delivery on students, families and schools and on the opportunities for SACE recognition. The following key issues were identified:**

- ▶ the 'fragile' connections and lack of a sustained partnership between the three key stakeholder groups: schools as VET providers for students, the SACE Board as VET recogniser for students, and TAFE SA as VET provider for adults. The lack of interoperability between databases means that there is no easily accessible data about outcomes being achieved or reliable basis for future planning requirements
- ▶ school leaders' perceptions of the difficulty in managing the TAFE SA bureaucracy associated with VET, which in turn discourages schools from offering VET courses and limits student opportunities
- ▶ students' perceptions of the variability in quality between VET courses and the limited learning experiences created by particular types of pedagogy and assessment.
- ▶ families' perceptions of the variability in costs between schools and courses, as well as the accessibility challenges particularly in rural communities
- ▶ business, government department, and TAFE SA concerns about the quality and currency of schools' career counselling and a possible bias towards university courses.

Some respondents suggested that the SACE Board could take on the role as the bridge between schools on one hand and TAFE SA and universities on the other. The Board could help promote early offers for South Australian universities alongside 'dual offers' for students who wish to pursue a VET pathway for 2 years and then transition to a university course. TAFE SA particularly supported the 'backwards-mapping' of projected industry needs into schools to assist young people with their career decisions. Again, the suggested focus was on Year 9 students in order to intervene before students selected their subjects in Year 10. TAFE SA also wanted schools to take responsibility for developing students' literacy and numeracy to acceptable levels, which suggests that more thinking is required about the extent to which students can transfer the Stage 1 literacy and numeracy outcomes into VET certification.



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### Recommendation 10

The Minister establishes a comprehensive and independent inquiry to review VET quality, auspicing, and delivery; to make recommendations to address the ongoing concerns; and to report within 12 months.

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## Entrepreneurial education in VET and SACE

*The paradigm shifters: entrepreneurial learning in schools* (or the 'Mitchell Report') defines entrepreneurial learners as those who apply their curiosity and talents to identify and solve problems worth solving by creating products (goods and services) of value to others (Anderson, Hinz & Matus 2017, p 10). This entrepreneurial learning is important because it is a way of equipping our young people to positively approach the challenges of a rapidly evolving future. It manifests itself in the learning 'transfer' requirements in the Australian Curriculum and the SACE, where students are encouraged to use their discipline knowledge and understandings in unfamiliar and non-routine ways. It is also present in the capabilities, which form the basis for entrepreneurial learning. While some respondents were concerned about entrepreneurial education being a government priority that will ebb and flow, or will be focused only on small business, most respondents were generally supportive of the SACE Board partnering with schools to weave entrepreneurial thinking related to social and business enterprises throughout senior secondary courses. This innovation matches the trend of 95% of Australian universities introducing entrepreneurial aspects within their courses (Anderson, Hinz & Matus 2017, p 8).

Entrepreneurial learning in SACE needs to be implemented in the following ways:

- ▶ introduced as part of subject renewal into specific subjects (e.g. Business Innovation)
- ▶ within the proposed entrepreneurial investigative project in Stage 1
- ▶ as part of a new concept of short-term Industry Framework subjects available for 3–5 years that link schools, SACE, and industry. In this initiative, SACE provides the framework in the form of a facilitated massive open online course (MOOC) to support teachers to deliver the learning, the industry provides the content and advises on assessment, and the SACE Board and the various schooling sectors provide the professional learning. Topics may include:
  - ▶ cyber security
  - ▶ healthy ageing/health research (e.g. devices or genetic manipulation)
  - ▶ 'big data'
  - ▶ industry 4.0 (e.g. the internet of things or running factories)
  - ▶ the space industry
  - ▶ the defence industry (e.g. over-the-horizon radar systems developed in SA)
  - ▶ the food and wine industry
  - ▶ social challenges (e.g. recycling).
- ▶ Cross-disciplinary Studies and Scientific Studies being redeveloped to take on an entrepreneurial focus
- ▶ a collaborative partnership with SACE and the Department for Education in relation to the Entrepreneurial Schools Project and inviting outstanding entrepreneurial Catholic and Independent schools to join the project.



### Recommendation 11

The SACE Board accelerates the introduction of entrepreneurial thinking and learning into all subject renewal processes, particularly in the assessment components.



### Recommendation 12

The SACE Board partners with schools and industry to develop Industry Framework subjects that enable entrepreneurial learning in response to technical, social, and scientific challenges (e.g. cyber security, healthy ageing, the defence industry, recycling).



### Recommendation 13

The Chief Executive of the SACE Board provides expert advice in partnership with the Department for Education for the Entrepreneurial Schools project and to develop a South Australian concept of entrepreneurial learning for use in all government schools.

# Improvements from the Review process for consideration by the SACE Board

A range of issues related to areas of South Australian Certificate of Education (SACE) improvement emerged from the Review process. These issues were outside the specific terms of reference (see Appendix A), but respondents felt strongly that addressing these issues would provide synergistic support for the implementation of the Review recommendations. They are presented here, for consideration by the SACE Board.

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While subject-specific content knowledge may be just as pertinent today as ever before, it is more important now than ever to instil in our learners the capacity to own and be in charge of their learning”

Assisi, 2013

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## The SACE Board's role in change leadership

Since its inception, one of the SACE Board's roles has been to conceptualise new offerings aimed at keeping the certificate relevant for students to succeed in the contemporary world beyond school. As part of this process, the Board developed subject outlines and school leaders and teachers were involved in familiarisation workshops. Schools took on the responsibility for implementing the new offerings, fine-tuning their practices based on SACE moderation feedback and student results. A paradigm shift in this historical practice would see the SACE Team working directly with sector and school leaders on the reasons for changes as part of developing informed leadership for the implementation of the changes. Leaders could then work confidently with teachers, students, and families to get the best value possible from the improvements. This model would also ensure that school practices effectively mirrored the developers' intentions and that the developers understood the challenges of implementation in a school setting.

## Abandoning the practice of D and E grades earning SACE credits; micro-credentialing

Most respondents argued that providing SACE credits for subjects where students had achieved a D or E grade devalued the SACE credits, and sent the wrong message to students (i.e. that they could still earn their SACE even if they failed to achieve C- grade or better in over 50% of their Stage 1 subjects). Respondents strongly recommended abandoning the practice of allowing D and E grades to earn SACE credits. Instead, they recommended that the SACE Board explore micro-credentialing for the small units of learning undertaken by students — particularly by those students achieving D and E grades, those at risk of not completing their SACE, and those involved in the Flexible Learning Options (FLO).

## SACE Capabilities

Respondents commented that two key factors — excessive course content and the lack of contemporary curriculum design that entwines relevant capabilities with deep discipline knowledge — have resulted in the SACE capabilities developing by chance rather than by design. Respondents want students to have deep discipline knowledge and the capabilities to transfer this knowledge into unfamiliar and non-routine scenarios, in order to thrive in a rapidly changing world. Examples were discussed of students curating their own portfolio of capabilities on their smart phones, obtaining verification of the evidence, and then uploading the portfolio to LinkedIn or having the option of presenting it for university entrance. Unless all teachers are confidently implementing the capabilities, then this is an option for only a few students and is not in keeping with the 'success for all' mantra. The subject renewal work offers the opportunity to reduce the amount of content and to accelerate the sophisticated development within assessment tasks of the capabilities related to particular disciplines. The SACE Board and the three schooling sectors have the opportunity to work with school leaders to develop a professional learning program for all SACE leaders and teachers on the explicit implementation and assessment of the capabilities, entwined with deep discipline knowledge. The SACE Board can then take the lead with marketing to students, families, and the South Australian community the urgent need for deep discipline knowledge transformed by sophisticated understanding of capabilities.

## Assessment improvements

The majority of students, families, teachers, and school leaders highlighted that Stage 2 is a 'mad dash' for students from assessment deadline to assessment deadline, many with over 40 tasks — all very similar in nature — needing completion in fewer than 30 weeks. Teachers and students have insufficient time for the high-quality challenging learning that should be occurring in the final year of formal schooling. Students need to be problem-solving, deepening their understandings, developing and demonstrating their capabilities, experimenting, redoing experiments when they fail (which is an important part of learning), and trialling different ways of presenting their work other than the standard written report required in some form by most subjects. Completing similar tasks across subjects can become a motivation-depleting compliancy exercise rather than providing students with the opportunity to experience the cognitive diversity that develops their learning, challenges their thinking, and engages them in the process. The SACE Team can provide the leadership for all teachers to design varied and challenging tasks that are relevant to the world beyond school, that stretch students' thinking, and that require the demonstration of relevant capabilities as an integral aspect. In order to create space for this type of learning to occur, content needs to be reframed and reduced. The performance standards need to be fewer and clearer, and capture more sophisticated differences in learning rather than use adjectives to differentiate.

The SACE Team needs to take up the challenge of addressing teachers' preference for written reports, despite the subject outlines offering a range of assessment types. This preference occurs for a range of reasons, including the exemplars on the SACE website being written tasks and SACE teachers reporting that written tasks score more highly because moderators and assessors are more confident with this type of assessment. The authenticity of student work was also a concern in the Review with respondents suggesting that more expos, panel presentations, and viva voce would address this concern while better replicating workplace requirements.

Many subjects have directed investigations as their externally assessed piece, despite the original intention that investigations would only occur in the Research Project and other subjects would use different assessment types. As a result, Term 3 in Year 12 is the time when most of the lengthy assignments are due, causing families, students, school staff, and health experts to question whether this stress peak contributes to students' learning. In consultations, school leaders wondered whether this plethora of requirements was created by the historical SACE process of specialists providing advice on their subject and no one having the responsibility of advocating for the perspective of the individual student taking the range of subjects. An outcome from the Review process was a strong request that fewer, more varied assessment tasks be required, bearing in mind that most first-year university courses only require two deep thinking tasks per semester.

Technology offers us the opportunity to conceptualise examinations very differently. Currently, examinations require students to demonstrate what they know rather than what they can do with what they know. Examinations need to be reconceptualised to better reflect what the world beyond school is interested in knowing about students' understandings and capabilities. The power of technology needs to be used to enable examination of each student's individual understandings and to stretch their learning to its boundaries, rather than being a generic assessment of one type of learning. In the Review consultations, many school personnel were excited by the prospect of the SACE Board building on the work that is already being done in relation to electronic examinations, and taking the lead in reconceptualising examinations so that they become more about challenging every individual in relation to their learning. Leaders were aware that other world-class certification bodies like the International Baccalaureate Organisation are currently on this reconceptualising pathway. If examinations became more about students applying their learning, then perhaps all subjects could be involved in this process rather than just some and there would be no need for examination-avoidance behaviour from students during their subject selection.

## Stage 1 literacy and numeracy requirements

Respondents recommended that literacy and numeracy requirements be treated the same at Stage 1 — either both requiring 10 or 20 credits, rather than continuing the current situation where literacy accounts for 20 credits but numeracy only for 10. This is occurring at a time when mathematics understanding is becoming increasingly important for future job opportunities. Research needs to be undertaken on the transfer of literacy and numeracy outcomes into other subjects and into the world beyond school. Respondents also recommended that relevant literacy and numeracy components of VET courses be recognised as delivering on the Stage 1 requirements.



### Recommendation 14

The SACE Board implements the following actions to address the issues raised in the Review:

- ▶ reconceptualise the SACE Board's role in delivering leadership for SACE changes in partnership with the schooling sectors and school leaders
- ▶ abandon the practice of allowing D and E grades to earn SACE credits, and substitute micro-credentialing for small units of learning
- ▶ entwine SACE capabilities with deep discipline knowledge in curriculum delivery and pedagogy
- ▶ require fewer, but richer and deeper assessment tasks that challenge students' thinking, and other assessment improvements related to the number and language of the performance standards, reconceptualised examinations, and reducing the amount of subject content
- ▶ reconceptualise the assessment components in Stage 1 literacy and numeracy requirements to capture the degree to which students can transfer the outcomes into other subjects and settings
- ▶ equally weight Stage 1 literacy and numeracy requirements at either 10 or 20 credits each.

## SACE Completion reporting

The introduction highlighted the need to track students who enrol in the PLP in Year 10 against SACE completers in Year 12 and to research the strategies to improve completion rates in Year 12.



### Recommendation 15

The SACE Board reports Year 12 completion rates against the Year 10 PLP enrolments and works in partnership with the Minister and the Department for Education to explore micro-credentialing and other approaches that could contribute to improved SACE completion for all South Australian students.

## Further research required

The Review processes also identified other issues needing further research. These issues were not specifically part of the Review's brief, but they affected the recommendations related to the terms of reference. Further research is needed to better understand the causes of the following issues and to identify the strategies that would be most effective in addressing or reducing them.

- ▶ Student stress levels and student wellbeing. Anecdotally this is the most stressed cohort that school leaders have encountered. Obviously there are many contributing factors outside SACE remit, but some leaders wondered whether the number of similar tasks and the reflection required in many tasks led to students' increased self-focus and perceptions of unhealthy stress.
- ▶ Curriculum design that enables students to demonstrate the capabilities in action; that explores how students can capture and verify evidence of their developing capabilities (perhaps via a SACE app); and teachers' roles in this process.
- ▶ 'Transfer' of knowledge (i.e. students learning how to apply their knowledge to non-familiar and non-routine situations) and how this concept can then be used to shape teacher practice as well as assessment tasks and examinations.

- ▶ Some student cohorts having low SACE completion rates:
  - ▶ rural and remote students
  - ▶ students with disabilities who are not eligible for modified curriculum
  - ▶ refugees.
- ▶ Concerns were raised in the consultations and submissions related to English as an Additional Language (EAL) learners. The recent shift from two SACE subject options – EAL and EAL Studies – to one was seen as not recognising the complexity of the needs and the range of EAL learners. Feedback indicated that researching this area further would allow opportunities to improve language acquisition pedagogy and the assessment types, as well as to ensure SACE subjects are providing challenges for all levels of EAL learners. The South Australian Association for Teaching English to Speakers of Other Languages (TESOL) recommended the SACE Board take control of special provisions for EAL learners and that the technical/linguistic vetting processes be revised with clearer instructions provided to EAL teachers. Research into EAL learner needs would also enable these concerns to be addressed.
- ▶ The gender differences in grade distribution reflect a global pattern whereby female students are out performing male students. Research (Voyer and Voyer 2014) hypothesized a number of factors causing this difference such as female students being more proficient at reading and writing, differences in behaviour regulation, better attention allocation and use of problem-orientated strategies. One school leader in the consultations illustrated how their school has equipped male students with the meta cognitive understanding of the factors impacting on grade distribution, particularly with increased school-based assessments, and explicitly engaged them in developing their own strategies. This approach has reduced the grade distribution differences. Research into the factors contributing to gender differences and possible strategies would better inform curriculum design, pedagogy and assessment. As such it would be useful information for the SACE Team to provide to all schools.



## Recommendation 16

The SACE Board works in partnership with the state government, schooling sectors, universities, and other organisations with relevant expertise to research the following issues to determine the causes and possible solutions:

- ▶ the stress levels and wellbeing of senior secondary students
- ▶ SACE curriculum design that enables the capabilities to entwine with deep discipline knowledge
- ▶ pedagogy that develops in students the skills for effective 'transfer of knowledge' from familiar to unfamiliar settings
- ▶ low SACE completion rates achieved by specific cohorts such as rural and remote students, students with disabilities who are not eligible for a modified curriculum, and refugees
- ▶ the complexity and special needs of English as an Additional Language or Dialect (EALD) learners
- ▶ gender differences in SACE tasks and results.

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# Terms of reference

1. The number of Stage 2 subjects required to be undertaken by students to achieve their SACE; and the requirements for a student to receive an ATAR.
2. The compulsory requirement of the Research Project, whether it should continue to account for 10 credits at Stage 2, and what improvements might be made with specific reference to entrepreneurial education opportunities.
3. The role of Vocational Education and Training (VET) in the SACE, including what improvements can be made and how entrepreneurial education opportunities might be incorporated into VET pathways.

## SACE Review Process

The terms of reference provided by the Minister were used to develop a set of questions for a survey that was publicised directly to all school communities, on the SACE website, and through an advertisement in *The Advertiser* designed to seek input from members of the public. While the survey questions were directly focused on SACE Stage 2 as per the terms of reference, there was an additional open question that enabled respondents to provide further feedback on any other aspects of SACE.

The survey opened in the last week of Term 2 2018 (6 July 2018) and remained open for seven weeks until the end of Week 5 Term 3 (17 October 2018).

1539 responses were received across the range of stakeholders; students, families, teachers, school leaders, businesses and other organisations, and interested individuals. Key groups were offered the opportunity to discuss their feedback in a face to face or Skype setting. These groups included: education sectors, the universities, TAFE SA, teacher associations, unions, principal groups, and organisations like Business SA, the Department for Industry and Skills, and the Training and Skills Commission. Students who had been involved in any SACE activity in the past few years were directly invited to contribute and principals were asked to discuss the survey with their senior students and to invite them to respond.

The data was processed into graphical responses and open-ended text for analysis by the team.

Notes from the consultations were sent out to all the various groups for confirmation. All submissions were acknowledged.

The recommendations were drawn from the information provided by the different processes. Some of the feedback addressed issues outside the terms of reference, and where these were relevant to SACE they were included in a final section of the report.

# Consultations and submissions

## Consultation meetings were held with the following organisations/departments:

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Adelaide Hills Principals Alliance

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Association for Secondary Research Teachers (ASRT)

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Association of Independent Schools of South Australia (AISSA)

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Association of Principals of Catholic Secondary Schools (APCSS)

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Australian Education Union (AEU – SA Branch)

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Business SA

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Catholic Education South Australia (CESA)

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Department for Education (SA)

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Department for Industry and Skills

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Eastern Adelaide Principals Network

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Educators SA

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Eyre Peninsula Principals Network

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Flinders University

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Independent Education Union South Australia (IEUSA)

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Inner South Principals Alliance

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Multicultural Education and Languages Committee (MELC)

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North East Secondary Principals Network (NESPAN)

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Training and Skills Commission (TASC) SA

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Riverland Principals Alliance

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SACE Board staff

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South Adelaide and Fleurieu Principals Alliance

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South Australian Secondary Principals' Association (SASPA)

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South Australian Tertiary Admissions Centre (SATAC)

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South East Secondary Principals Network

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School of Languages

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TAFE SA

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The University of Adelaide

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The University of South Australia

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The SACE Review Team also met with a range of individuals.

**The following organisations/departments provided submissions to the SACE Review, or identified themselves in the SACE Review survey:**

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Association of Independent Schools of South Australia (AISSA)

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Association for Secondary Research Teachers (ASRT)

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Australian Education Union (AEU – SA Branch)

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Career Development Association of Australia (CDAA)

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Catholic Education South Australia (CESA)

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Construction Industry

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Department for Education (SA)

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Engineers Australia

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Flinders University, College of Education, Psychology and Social Work

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Geography Teachers' Association of South Australia (GTASA)

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History Teachers' Association of South Australia (HTASA)

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Independent Education Union (IEU – SA Branch)

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Marden Senior College students

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Modern Language Teachers' Association of South Australia (MLTASA)

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Multicultural Education and Languages Committee (MELC)

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Northern Territory Department of Education

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Port Augusta Secondary School

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South Australian Health and Medical Research Institute (SAHMRI)

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South Australian Association for Teaching English to Speakers of Other Languages (SA TESOL)

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St Mary's College

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The Naval Shipbuilding College

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The Geoscience Pathways Project (Inc.)

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The University of South Australia

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