

Capabilities in the SACE

SACE Improvement

May, 2017



1. Broad context of curriculum development
2. Conceptualising curriculum
3. The “structure” of the SACE qualification
4. SACE subject renewal – growing the emphasis on Capabilities
5. Thinking ahead...

What are the “pillars” of education in Australia?

These pillars should drive policy making, leadership, curriculum design, teaching, learning and assessment.....

Quality

Equity



The educational outcomes of disadvantaged young Australians...

- About a quarter of all young Australians do not meet key educational outcomes.
- The situation is particularly acute for certain groups:
 - those from low socioeconomic backgrounds;
 - Aboriginal and Torres Strait Islander young people;
 - those living in non-metropolitan areas; and
 - those attending schools with a concentration of students from disadvantaged backgrounds.

Educational disadvantage is experienced early in Australia and continues throughout school and into post-school life

- 1. Starting school:** One in three children in the most disadvantaged communities in Australia is developmentally vulnerable in one or more key areas when they start school (Australian Government 2016).
- 2. NAPLAN:** 94% of Year 5 students who have parents with a university qualification achieve above the national minimum standard in numeracy (NAPLAN). The figure is 61% for students whose parents have not completed Year 12 (ACARA 2015).

Educational disadvantage is experienced early in Australia and continues throughout school and into post-school life

- 3. Year 12 completion:** Around 60% of young people from the lowest socioeconomic backgrounds complete Year 12. This compares to around 90% for those from the highest socioeconomic backgrounds (Lamb et al. 2015).
- 4. Post-school engagement:** 41% of 24 years olds from the most disadvantaged backgrounds are not fully engaged in work or study, compared to 17% of those from the most advantaged backgrounds (Lamb et al. 2015).

Bigger picture thinking: USA Case study

- 750,000 students every year do not graduate from high school with their peers.
- Without a high school diploma, these individuals are far more likely to spend their lives:
 - periodically unemployed; and/or
 - on government assistance; and/or
 - cycling in and out of the prison system.

Societal impacts of non completion...

- Local, state, and national tax revenues suffer when high school “dropout” rates increase.
 - Even when “dropouts” are employed, they earn, on average, \$8000 p.a less than high school graduates and pay less in taxes.
- State and local economies with less-educated populaces find it more difficult to attract new business investments.
 - Simultaneously, state and local governments spend more on social programs when their citizens have lower education levels.

Economic benefits of high school completion...

- The graduates themselves earn more and typically enjoy more comfortable and secure lifestyles.
- High school graduates' increased purchasing power:
 - boosts national, state, and local economies;
 - increases home and car sales;
 - creates jobs and economic growth; and
 - leads to higher tax receipts.

Similarities...

- Any OECD country?

- Australia?

- South Australia...?

(4 postcodes in the top 15 in Australia where welfare exceeds taxation revenue...)

Back to the “drivers...”

Quality and equity
through curriculum
design...



The Early Years Framework – a vision for all children...

All children
experience learning
that is engaging and
builds success for life.



The Early Years Framework aims to ensure that...

Strong sense of identity

Connected with and contribute to their world

Strong sense of wellbeing

Confident and involved learners

Effective communicators

Belonging

Being

Becoming

ACARA

a vision for Australian learners and society

All young people in Australia should be supported to become successful learners, confident and creative individuals, and active and informed citizens (MCEETYA, 2008).



General capabilities are a key dimension of the Australian Curriculum

They encompass knowledge, skills, behaviours and dispositions that, **together with curriculum content in each learning area** and the cross-curriculum priorities, will assist students to live and work successfully in the twenty-first century.

The Capabilities are:

Intercultural understanding

Ethical understanding

Personal and social capability

Critical and creative thinking

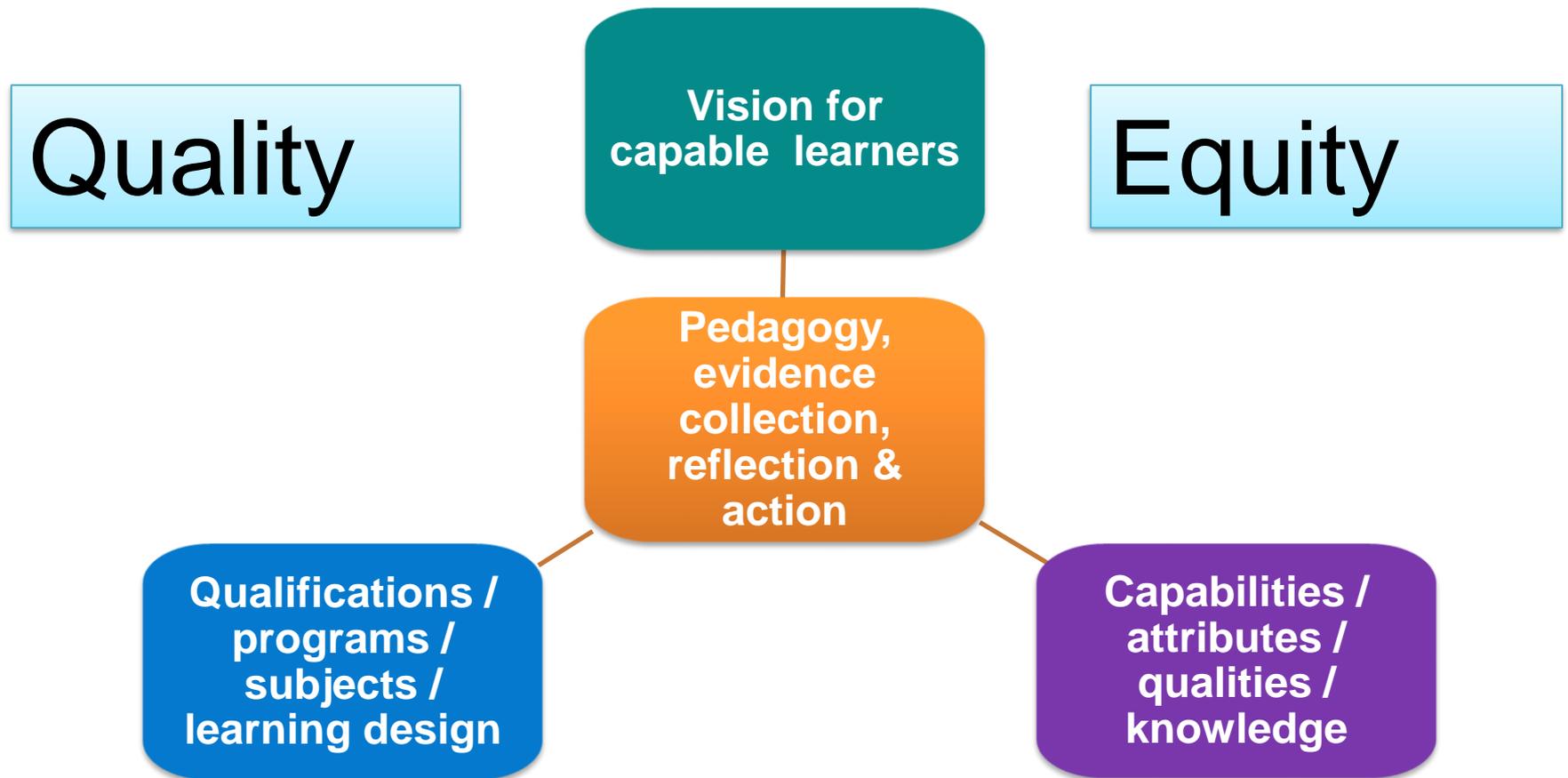
Information and communication technology capability

Numeracy

Literacy



(Re)conceptualising curriculum



And...

Quality and equity
through learning
design...



Pedagogic shift

Split screen task design

**Learning
Area
Content**

**Capabilities
and
Disposition**



SACE

Prepared for life, learning and work

I use technology to process information and communicate effectively

I think critically, I am able to generate ideas and possibilities

I am numerate

I am self-aware

I am literate

I am ethical

I am respectful of diverse perspectives



SACE

Structure of the qualification

**Compulsory literacy and numeracy
ACSF level 3**

**Breadth of learning –
200 credits**

**High academic standards
– 60 credits at Stage 2**

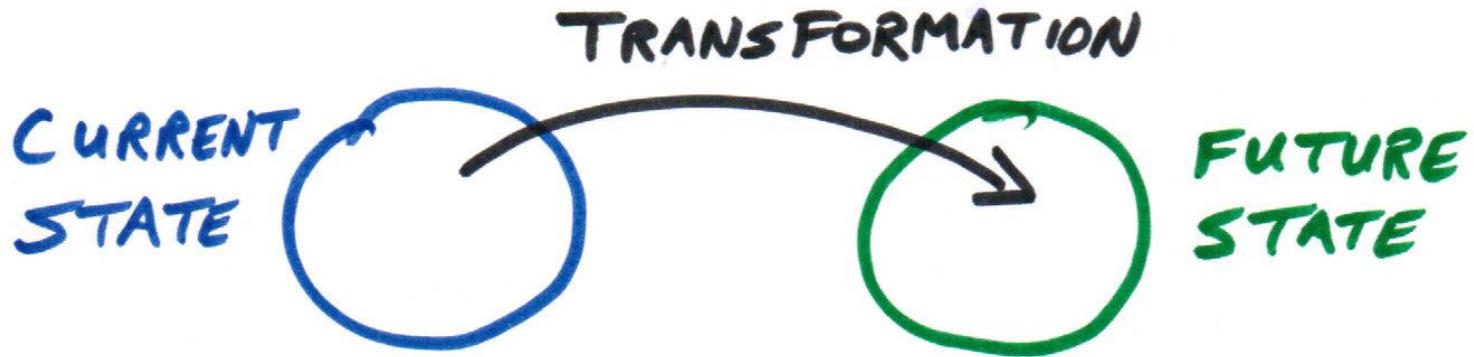
Future planning and reflection - PLP

Capacity to research and synthesise learning from a range of disciplines - RP



Subject renewal

Cross-sectorial capabilities work



- Growth in capabilities
- Conceptual and contextual learning
- Transformative learning
- Relevant, engaging learning
- Collaborative learning
- Quality assessment

KPI



2014

2016–17

2017–18

2021

16
subjects

Aboriginal Studies
Digital Technologies
Integrated Learning
Music subjects
Physical Education
Scientific Studies

Accounting
Aust. Languages
Aust. & Int. Politics
Bus. & Enterprise
Cross-disc. Studies
Dance
Drama
Economics
Health
Nutrition
Philosophy
Psychology
Society and Culture

30
subjects



Digital Technologies

I learn through experimentation

I can create new ways of doing

I make ethical decisions

I can create digital solutions

I learn through collaboration

I use computational thinking skills

I can research and synthesise learning from a range of disciplines



EVIDENCE OF LEARNING

The following assessment types enable students to demonstrate their learning in Stage 2 Digital Technologies:

School Assessment (70%)

- Assessment Type 1: Project Skills (50%)
- Assessment Type 2: Collaborative Project (20%)

External Assessment (30%)

- Assessment Type 3: Individual Digital Solution (30%).

Students provide evidence of their learning through six assessments, including the external assessment component. Students complete:

- four project skills tasks
- one collaborative project
- one individual digital solution.

It is anticipated that from 2018 all school assessments will be submitted electronically.

Computational Thinking

The specific features are as follows:

- CT1 Application of computational thinking concepts and techniques, to identify and deconstruct problems of interest
- CT2 Use of abstraction to identify core concepts and ideas
- CT3 Analysis of relationships in data sets, to draw conclusions and make predictions
- CT4 Application of skills and processes to develop solutions to problems of interest

Development and Evaluation

The specific features are as follows:

- DE1 Design and creation of digital solutions
- DE2 Application of iterative development, testing, modification, and documentation of a digital solution
- DE3 Evaluation of the effectiveness of a digital solution
- DE4 Explanation, with supporting evidence, of role in and contribution to projects

Research and Ethics

The specific features are as follows:

- RE1 Research into and discussion of the ethical considerations in digital technologies.

Performance Standards for Stage 2 Digital Technologies



	Computational Thinking	Development and Evaluation	Research and Ethics
A	<p>Astute and creative application of computational thinking concepts and techniques, to clearly identify and deconstruct problems of interest.</p> <p>Insightful use of abstraction to identify core concepts and ideas.</p> <p>In-depth analysis of relationships in data sets, to draw insightful conclusions and make well-justified predictions.</p> <p>Highly purposeful application of skills and processes to develop highly efficient and logical solutions to complex problems.</p>	<p>Clear and consistent use of initiative in the design and creation of digital solutions that include innovative features.</p> <p>Highly purposeful and strategic application of iterative development, testing, modification, and documentation of an innovative digital solution.</p> <p>Insightful evaluation of the effectiveness of a digital solution or prototype.</p> <p>Insightful explanation, supported by clear and highly convincing evidence, of role in and contribution to projects.</p>	<p>In-depth research and discussion of ethical considerations in digital technologies.</p>
B	<p>Well-considered application of computational thinking concepts and techniques, to identify and deconstruct problems of interest.</p>	<p>Mostly consistent use of initiative in the design and creation of digital solutions, with one or more innovative features.</p> <p>Mostly purposeful application of iterative</p>	<p>Some depth in research and discussion of ethical considerations in digital technologies.</p>

Scientific Studies

I learn through inquiry

I can synthesise evidence-based arguments

I recognise the interaction between science and society

I can apply engineering design processes

I work collaboratively

I am receptive to change

Focus areas...

Question:

What is the connection between the Early Years' Framework, the Australian Curriculum, and the SACE?



Answer

Presumably any young person...and her or his growth as a capable learner and valuable citizen.



Strong sense of identity

Connected with and contribute to their world

Strong sense of wellbeing

Confident and involved learners

Effective communicators

Ways of promoting capabilities in the curriculum

Personal and social capability

Ethical understanding

Intercultural understanding

Critical and creative thinking

Student reflection

Information and communication technology

Numeracy

Literacy

Evidence of what this will look like

Belonging

Being

Becoming