

ACER Research Conference 2008

“Some Reforms to Better Equip Young People for Tomorrow’s World”

Touching the Future:
Building Skills for Life and Work

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Equipping young people for tomorrow's world

- Students who can compete in global domestic job markets
- Students who attain the world's best practice school achievement levels
- Students who are resilient and able to adapt to rapid change
- Students who have extensive cultural understandings
- Students who are well prepared for citizenship
- Students who have sophisticated levels of scientific understandings
- Students who are healthy, well rounded and have a range of interests

Australia's schooling system is very good by international standards

- Australia consistently ranks in the 2nd group of countries in the world on PISA results for maths, scientific literacy and reading literacy
- PISA Results 2006
 - Maths
 - Australia ranks 13th
 - 65% good to outstanding compared to 56% OECD average
 - Scientific Literacy
 - Australia ranks 8th
 - 66% good to outstanding compared to 57% OECD average
 - Reading Literacy
 - Australia ranks 7th
 - 63% good to outstanding compared to 57% OECD average

But are we adequately preparing
young people to thrive in
tomorrow's world?

International comparisons suggest that far too few young Australian's are completing senior secondary schooling

- Some 77% of 25-34 year olds have completed upper secondary schooling
- Australia ranks 20th in the OECD
- Australia is one of only 12 countries in the OECD with rates below 80%

But these comparisons ignore the extensive alternative education and training pathways available to young Australians

- 25% of 15 – 19 year olds are enrolled in VET / TAFE
 - many countries do not have a large formal VET system beyond the level of senior secondary school

School participation by young people in Australia

Students in Australian Schools (ABS 2008)

1997	3.20 million
2007	3.44 million

Increase of 7.5% over past decade

Retention in schooling (ABS 2008)

- Retention to Year 12 reached 75.6% in 2007
- At last retention rates are now getting back towards the record rates of 15 years ago

School participation rates in Australia, 2007 (ABS 2008)

■ 15 year olds	94.5%
■ 16 year olds	84.4%
■ 17 year olds	64.5%
■ 18 year olds	14.3%

Retention of students

- After 15 years of age too many young Australians drop out of school
- Fewer than two thirds of 17 year olds are at school
- Only 14% of 18 year olds are at school

Just over 70% of all school leavers each year complete Year 12 (ABS 2007)

■ Australian school leavers – highest year of schooling completed, 2007:

- Year 12	70.9%
- Year 11	9.3%
- Year 10	15.7%
- Year 9 or below	4.1%

Only just over half of all school leavers go directly on to further education and training (ABS 2007)

- Australian school leaver destinations, 2007:
 - further education and training 55.4%
 - not studying but in to a job 30.5%
 - not studying but looking for work 6.9%
 - not studying and not in to the workforce 7.2%

Of the 55% of school leavers who go directly on to further study half go to University (ABS 2007)

- Education destinations of Australian school leavers who enrolled in further study in 2007
 - bachelor degree or higher 50%
 - diploma/advanced diploma 12%
 - certificate III/IV 23%
 - certificate I/II/other 10%
 - year 12 or below 1%
 - study not leading to a qualification 3%

Implication of schooling trends

- The impact of demographic change is minor
- School retention rates are too low
 - but key issue is whether leavers go on to tertiary
- Only 70% of school leavers each year complete Year 12
 - of these only just over half go on to further study

Now let's look at changes in the
nature of work

Recent changes in Australian jobs – most higher skill jobs are growing strongly, low skill jobs mixed

Occupation	% of jobs 2005	% annual jobs growth 2002-2005
<u>High skill jobs</u>		
Managers and administrators	8.4	5.7
Professionals	18.9	2.7
Associate professionals	12.7	4.9
Skilled tradespersons	12.6	2.5
Total in high skill jobs	52.6	3.6
<u>Lower skill jobs</u>		
Advanced clerical and service workers	3.8	-1.2
Intermediate clerical, sales & service workers	16.5	1.0
Intermediate production & transport workers	8.2	1.4
Elementary clerical, sales & service workers	10.0	2.8
Labourers	8.9	0.4
Total in low skill jobs	47.4	1.2
All Jobs	100	2.4

* Rate of decline has halved since 1996

Qualifications profile of Australian working age population, 2007

	%
Post graduate degree	3.4
Graduate diploma/certificate	2.4
Bachelor degree	15.0
Advance diploma/diploma	8.4
Certificate III/IV	16.0
Certificate I/II	5.2
Certificate not specified	1.5
Tertiary not specified	0.7
Total with tertiary qualifications	52.6
Total with no qualifications	47.4

The current skills context

- Jobs requiring tertiary qualifications are growing fastest
- Just under half the population do not have tertiary qualifications from university or VET

Different qualifications lead to different jobs

Qualifications	Sector	Types of jobs
Doctoral and masters degrees	Higher education	Professional jobs
Graduate diplomas and certificates	Higher education	Professional jobs
Graduate vocational certificates and diplomas	VET	Upskilling of existing workers
Bachelor degrees	High education	Professional jobs
Diploma/advanced diploma	Dual sector, mostly VET	Para professional jobs/higher skilled technical jobs
Certificate IV	VET	Technicians/para professional jobs
Certificate III	VET	Skilled trades people Wide range of skilled service industry jobs
Certificate II	VET	Lower skilled jobs in service, clerical, retails and transport industries Trades assistants/technician assistants Other lower skilled jobs Access to further education and training
Certificate I	VET	Mostly access to further education and training

The mismatch between skills and jobs: Current skills and qualifications profile of population not yet matching skills pathways for jobs

Qualification	Jobs that require qualifications	Current qualifications profile of Australian population
	% of employment	% of 15-64 population
University	21.7	20.8
VET	62.8	31.8
No tertiary	15.5	47.4

The mismatch is not getting much better when we consider the study choices of current school leavers, 2007

Qualification	Jobs that require qualifications (% of employment)	Current qualifications profile of population (% of 15-64 population)	Study choices of school leavers (% of school leavers)
University	21.7	20.8	27.6
VET	62.8	31.8	25.4
No tertiary	15.5	47.4	47.0

Employment outcomes for people with and without tertiary qualifications, 2007

	Proportion of people aged 15-64 years who have left school who are employed (%)
<i>With a tertiary qualification</i>	
University post graduate	86.7
Bachelor degree	85.8
Advanced diploma / diploma	82.2
Certificate III / IV	85.0
Certificate I / II	72.0
All with a tertiary qualification	83.4
<i>Without a tertiary qualification</i>	
Completed year 12	73.8
Left school before completing year 12	58.4
All without a tertiary qualification	64.1

Implications of the changing nature of work for young Australians

- Nature of jobs is changing faster than ever
- Skill shortages are structural and ongoing not just cyclical
- Job prospects are excellent for university qualified young people
- Job prospects are equally good for high level VET qualified people i.e. Certificate III & IV, Diploma / Advanced Diploma
- Completing Year 12 only or Certificate I & II is no longer enough
- Job prospects are dismal for young people dropping out
- Far too few young people are getting tertiary qualified

Overall Implications for Education and Training Policy

- Most or all students need to complete senior secondary and go on to gain a tertiary qualification
- Disengaged students need to re-engage to gain tertiary qualifications

How do young people make career
and study choices?

Most parents believe they are well informed to advise their children (DEST 2007)

- 65% of parents think they are in a good or excellent position to provide career advice to their children

Where do young people turn for advice and support (Marks 1998)

■ Peers	86%
■ Parents	73%
■ Other relatives/family friends	63%
■ Internet	20%
■ School Counsellor	14%
■ Teacher	8%

But the choices being made are poor (Beavis et al, Smith Family, 2005)

- Student's whose planned education levels **match** the skill levels/qualifications required for their preferred occupation 50%
- Student's whose planned education levels are **higher** than the skill levels/qualifications required for their preferred occupation 23%
- Student's whose planned education levels are **lower** than the skill levels/qualifications required for their preferred occupations 27%

Only 50% of students are even picking the right sector (i.e. VET or university) let alone the right course for the job they have in mind

There is poor alignment between student and parent aspirations, actual student study choices and job skill requirements

Qualification	Jobs that require qualifications (% of employment)	Current qualifications profile of population (% of 15-64 population)	Student's planned tertiary pathway while still at school (%)	Parent's tertiary education aspirations for their children (%)	Actual study choices of school leavers (% of school leavers)
University	22	21	45	42	27
Vocational	63	32	32	33	25
No tertiary	15	47	23	24	48

Poor alignment

- Parents and students aspire to university options in excess of the jobs available requiring university level skills
- Far too few parents and students aspire to VET
- Far too many parents and students think no tertiary study is ok
- Parents' and students' aspirations exceed the reality of what students end up doing

Keeping young people engaged in
schooling or getting them
re-engaged:

Are young people happy at school
and what keeps them engaged?

Attitudes to schooling

Quality of school life (positive affect items)

PISA 2006 Australia (ACER)

	Male Students (%)	Female Students (%)	Students achieving poorly (%)
▪ I feel happy at school	84	85	57
▪ I like learning	80	84	47
▪ I get enjoyment from being there	73	76	51
▪ I feel safe and secure at school	89	91	69

Attitudes to Schooling

Quality of school life (opportunity items)

PISA 2006 Australia (ACER)

	Male Students (%)	Female Students (%)	Students achieving poorly (%)
▪ Learnt things important to me	88	90	68
▪ School work is good preparation for the future	91	92	60
▪ Learnt useful skills	93	94	64
▪ Things learnt will help in adult life	92	93	83
▪ Chance to do interesting work	72	76	34
▪ Things taught at school are worthwhile learning	86	88	55

Attitudes to School of Year 9 students (Marks 1998)

	% who agreed or strongly agreed
■ General satisfaction	
- happy at school	72%
- like learning	73%
- school excites me	23%
- learning is fun	43%
■ Satisfaction with teachers	
- teachers help me to do my best in school work	71%
- teachers give me the marks I deserve	79%
- teachers treat me fairly	72%
- teachers take a personal interest in me and my work	45%
■ Satisfaction with opportunities at school	
- things I learn are important to me	87%
- learning will help me in adult life	86%
■ Satisfaction with achievement at school	
- I achieve a standard at school that is satisfactory	78%
- I always try to do my best	82%

Young people are generally happy at school

- Most students are happy at school (80 to 90% satisfaction)
- But those achieving poorly are much less happy at school
- Only 45% think teachers take a personal interest in them and their work

Main attitudes to school life

(Marks 1998)

- Female student satisfaction with school is higher than males
- Students with more highly educated parents are happier
- Students from non-English speaking backgrounds are happier
- Aboriginal students have same levels of satisfaction, but are less satisfied with their school performance
- Non government school students are happier

Student engagement with schooling (Fullarton 2002)

- Female students enjoy school more than males
- Students from higher socio-economic backgrounds/those with professional parents have the highest engagement
- Engagement is higher where students believe the school environment is good (i.e. quality teaching, good school spirit)
- Happy students are more engaged in schooling
- Intrinsically motivated students are more engaged in schooling

Young people's perceptions about what disconnects young people from school (Australian Centre for Equity Through Education and Australian Youth Research Centre 2001)

	% still at School	% not at School	Rank
▪ School ethos, relationships with teachers and the way students are treated by the school	42	47	1
▪ Subject choice and curriculum content	13	14	2
▪ Organisational structure of school	10	7	3
▪ Social environment, bullying	5	13	4
▪ Physical environment	3	0	5

Young people's perceptions about what connects them to school

(Australian Centre for Equity Through Education and Australian Youth Research Centre 2001)

	% still at School	% not at School	Rank
▪ Quality of relationships with other students	41	31	1
▪ School ethos, relationships with teachers and the way students are treated by the school	28	15	2

The impact of the quality of family relationships

(Australian Centre for Equity Through Education and Australian Youth Research Centre 2001)

	% at School	% not at School
▪ Living at home with parents/relative(s)	87	49
▪ Living with friends	7	15
▪ Living in foster care	2	4
▪ Living at refuge / shelter / other	4	32

Retention and engagement is highly related to success at school

(Australian Centre for Equity Through Education and Australian Youth Research Centre 2001)

- Over 75% of young people still at school felt they were successful at school
- Only half of those who had left school early thought they were successful at school

Key findings about engagement and retention

- Engagement and retention is higher amongst school students from higher socio-economic status backgrounds
- Parent's education levels are a key factor
- Engagement and retention is higher when students are happy
- Engagement and retention depends on students feeling they are successful
- Quality of relationships with peers matters
- Stable family environment / living at home is an absolute precondition for engagement and retention
- Quality of relationships with teachers and the way schools treat students is important
- Students are looking to be treated by schools as an individual / in a more adult way

We need all young people to

- Complete Year 12 and go on to complete a University or VET qualification
- or**
- Return to study by their early 20s and complete a VET or University qualification if they finished school at Year 12 and don't go on to further study straight away
- or**
- Get re-engaged in schooling and/or VET or University if they drop out early

Raising the Stakes

From improvement to transformation in the reform of schools

(Brian Caldwell and Jim Spinks 2008)

- Personalised learning
- Self-managing schools
- Transforming systems to achieve high quality and high equity
- Student focused planning and resourcing

This will not happen by only focussing on secondary education and the quality of the school to further study to work transition

- We need to give as much attention to early childhood development and the quality of the transition through primary and middle years schooling

Transforming early childhood education and schooling

- Quality early childhood development for all children aged 0-3 years
- A more integrated and higher quality pre schooling and junior primary schooling for 3-8 year olds
- Focused high quality and integrated middle schooling for years 6-9 students
- Full choice in the senior years 10-12 and case managed transitions

Early childhood development (0-3 years)

- The neuroscience story
 - Maximum brain development is the foundation for optimum learning, wellbeing and health
- Children need 15 hours per week of touch, interaction, mental stimulation, structured activity from age 0
- Coherent early childhood development strategy requires
 - Early Childhood Development Centres
 - Promotion of good parenting to the Community – advertising campaign
 - Post natal home visiting to include mental development as well as physical development
 - Quality improvement / regulation of child care
 - Better training of early child care workers
 - Rethink parental leave
- Need to link with childcare to provide seamless service for parents

Integrated pre schooling and junior primary schooling

- Extend 15 hours per week of pre schooling to all children
- Focus on seamless transition from pre school to junior primary school
- Strong emphasis on developing literacy and social confidence
- Rethink governance, leadership and school / pre school structures
- Need to link in with childcare to provide seamless service for parents

Focused and integrated middle schooling

- Many students disengage in the middle years
- Need to develop integrated middle years strategy
 - A “seamless” transition from primary to secondary for all students
 - Senior primary students to take some classes in secondary schools
 - IB middle schools program a useful model
 - A more student centred approach to learning

Transforming Senior Secondary Education:

A full choice of subjects for all senior secondary students, regardless of the size of their school

- A more student centred approach to learning with more options
- Subjects provided by their school in the usual way
- Subjects provided at their school but by a visiting teacher
- Subjects provided in a virtual classroom through a link between a teacher and a full class of students from multiple sites
- Student travelling to a nearby school for particular programs
- Conventional open learning delivery

Transforming senior secondary education:

A full choice of VET options for senior secondary students

- Phase out embedded programs and have all VET delivery under national training packages
- Have some certificates / units provided by school
- School based apprenticeships
- A much greater choice of VET (particularly Certificate III +) provided by TAFE / RTOs

Transforming senior secondary education:

A full choice of other options for senior secondary students

- Commence a semester of university study while still at school
- Individual learning options with accreditation in senior secondary certificates

Transforming senior secondary education:

Providing senior students with educational support

- Case manage learning
- Each secondary student has a mentor
- Individual learning plans
- Provision of professional and independent career advice so educational choices can be truly based on career aspirations and good information about options

Student focused learning

Transforming schooling to focus on students is essential

This transformation needs to encompass:

- the allocation and alignment of resources based on student needs
- flexible curriculum structures which allow for the widest learning options
- networks of schools working together and with business, industry and other agencies to create new options for students
- student-focused planning so that resources can be deployed to meet the needs, interests, aptitudes and aspirations of all students

Some key elements are already happening

- Raising the school leaving age/learning or earning to 17 years in several jurisdictions
- New national emphasis on universal access to pre-school and early childhood development
- Pre school and primary links being developed
- Some excellent middle schooling strategies
- Senior secondary school reforms, more learning choices particularly in VET, individual learning plans
- Improved career advice
- Targeted flexible learning options being trialled to re-engage early school leavers
- More high level VET options for school students including school based apprenticeships
- A new national agreement in schooling aimed at 90% attainment, possible national partnerships on teaching quality and low SES being developed