

Across the curriculum landscape in Australia - a dog's breakfast?

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Australian Council *for* Educational Research



Comparability studies: What the research shows

Australian Council *for* Educational Research



Outline

Three pieces of research

ACER 2006 - report to DEST

ACER 2007 - report to DEEWR

ACER 2008 - report to IBAP

With reference to:

- The national agenda
- International mapping exercises



Background

"The current diversity in senior secondary curriculum structures and assessment regimes across Australia may be indicative of differing standards of achievement" (DEST, 2005)



Research 1

Australian Certificate of Education:
Exploring a way forward (ACE)

National consistency and comparability?
(Amongst other questions)



Research 2

Year 12 Curriculum Content and Achievement Standards (CAS)

- What is currently offered in syllabuses/ curriculum frameworks across the country?
- What is considered to be essential for all students studying those subjects?
- What standard are students currently required to attain across the country to be awarded the highest available grade in each of those subjects?



Research 3

Comparability of the IB diploma and the
Australian states' curricula



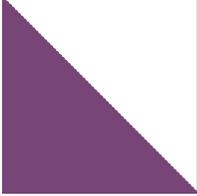
Curriculum is a complex construct

- Curriculum is not merely about the 'stuff' of teaching and learning as captured by a list of subject offerings or a school timetable.
- Investigations must address at least five categories.



Curriculum verification chain

1. Desired curriculum
2. Developed curriculum
3. Enacted curriculum
4. Assessed curriculum
5. Learnt curriculum



About Research 1

Australian Certificate of Education:
Exploring a way forward (ACE)

National consistency and comparability?
(Amongst other questions)



Rationale for national consistency

- Reduce difficulties for students moving between states and territories
- Assist national reporting on student learning outcomes
- Identify essential learnings that prepare students for an Australian and global society



Rationale for national consistency (contd)

- Utilise to the maximum effect scarce curriculum resources
- Assist universities to develop teacher programs that are appropriate to all Australian students
- Reduce the new learning required of teachers who move between jurisdictions

National consistency and comparability?

- There are similarities
- There are differences



Similarities

- In intentions
- In helicopter view



Clear differences

- In curriculum
- In assessment
- In certification
- Of a general nature



Curriculum differences

- In models of curriculum/syllabus development/frameworks
- In subjects given same name or very similar name (and vice versa)



Subject offerings



Family of names

Ancient History	Ancient Civilisations	Ancient History	History: Renaissance Italy	Classical Studies	
Modern History	Twentieth Century History	Modern History	History: Revolutions	Modern History	
	Australian History		History: Australian History	Australian History	
HSC History Extension					History: Ancient & Modern

Same name

Chemistry	Chemistry	Chemistry	Chemistry	Chemistry
Economics	Economics	Economics	Economics	Economics
Physics	Physics	Physics	Physics	Physics
Accounting	Accounting	Accounting	Accounting	Accounting Studies
Geography	Geography	Geography	Geography	Geography Studies
Dance	Dance	Dance	Dance	Dance Studies
Drama	Drama	Drama	Drama	Drama Studies
Biology	Biology	Biological	Biology	Biology

Overlap

Legal Studies	Legal Studies	Legal Studies	Legal Studies	Legal Studies	
		Political Studies	Political Studies	Australian & International Politics	
					Politics & Law



Similar names

- Agriculture
- Nil
- Agricultural Science
- Agriculture & Horticultural Studies
- Agricultural & Horticultural Science
- Agriculture
- Business Studies
- Nil
- Business Organisation & Management
- Business Management
- Nil
- Business Management & Enterprise

Mix and match

<p>Visual Arts Textiles & Design Software Design & Develop Industrial Tech. Design & Tech. Engineering Studies</p>	<p>Art, Craft & Design (A) Art, Craft & Design (P) Graphics & Design Audio Design Design Graphics Housing & Design</p>	<p>Visual Art Tech. Studies Graphics Engineering Tech.</p>	<p>Art Visual Comm. & Design Studio Arts Industry & Enterprise Studies</p>	<p>Visual Arts Studies Design & Tech. Studies Design & Tech. (6 options)</p>	<p>Visual Arts Visual Comm. Design Computer Science Materials Design & Tech. Engineering Studies Automotive Engineering & Tech.</p>
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English (TER) offerings

English (Advanced)	English Studies	Senior English	English	English Studies	Year 12 English	English (T)
English (Standard)					Senior English	English (A)
English Extension Course 1		English Extension (Literature)	Literature		English Literature	World Literature (T)
English Extension Course 2	English Writing					
	English Communications		English Communications		Vocational English	
ESL	ESL		ESL	ESL ESL Studies	ESL	ESL (T) ESL (A)



What the English table shows

- 18 TER English courses on offer across Australia, not including courses in ESL
- Four of these courses contain the word 'Literature' in their title.
- A literature component exists, more or less, in most of the 14 other TER English courses
- Either way, 'literature' includes not only English Literature but also Australian Literature and literary texts from other



Huge range of TER courses on offer

Messages conveyed

- 1: Response to the increased retention rates and concomitant variation in learning needs of students in recent years.
2. Extent to which the jurisdictions have deliberately chosen names for new subjects or for extra levels of existing subjects that are not the same as those chosen by other jurisdictions.

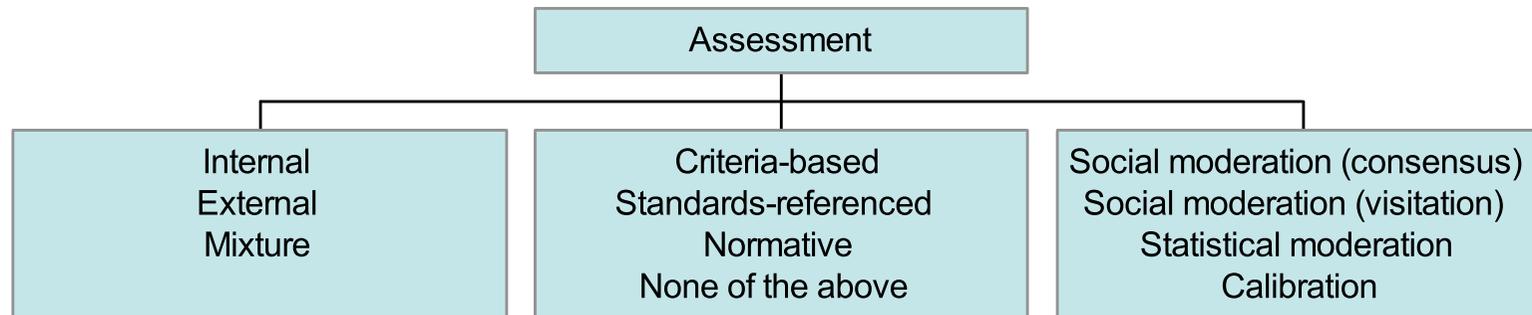
The phenomenon of unpredictable variations on a theme (such as subject name or assessment method) is an issue that pervades all comparability



Assessment differences

- In balance of arrangements and modes of assessment
- In underpinnings of assessment and standards
 - Methods for measuring/judging student achievement
- Procedures for ensuring comparability of standards in reported results
- Procedures for combining results in different subjects (for devising tertiary

High-stakes assessment





Certification differences

- In eligibility requirements for the award
- In nomenclature for reporting results



Top grades

- ACT
- New South Wales
- Queensland
- Victoria
- Tasmania
- South Australia
- A
- Band 6
- Very High Achievement
- 40+
- Exceptional Achievement
- Outstanding Achievement



General differences

- In rationale given for certain procedures
- In usage of fundamental terms

There are reasons for the differences

- Accidental
- Historical
- Conceptual
- Compromise



Helicopter view

- Would show major commonalities.
- Major commonalities have historical origins in the culture and values of Australia.
- Pilot would know she is hovering over Australia and not somewhere else.



ACE Report: Recommendation 2

That achievement standards
(described and illustrated levels of
achievement) be developed to make
students' results in [those] subjects
more comparable across Australia



About Research 2

Year 12 Curriculum Content and Achievement Standards (CAS)

- What is currently offered in syllabuses/ curriculum frameworks across the country?
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- What **standard** are students currently required to attain across the country to be awarded the highest available grade in each of those subjects?



Subjects for CAS study

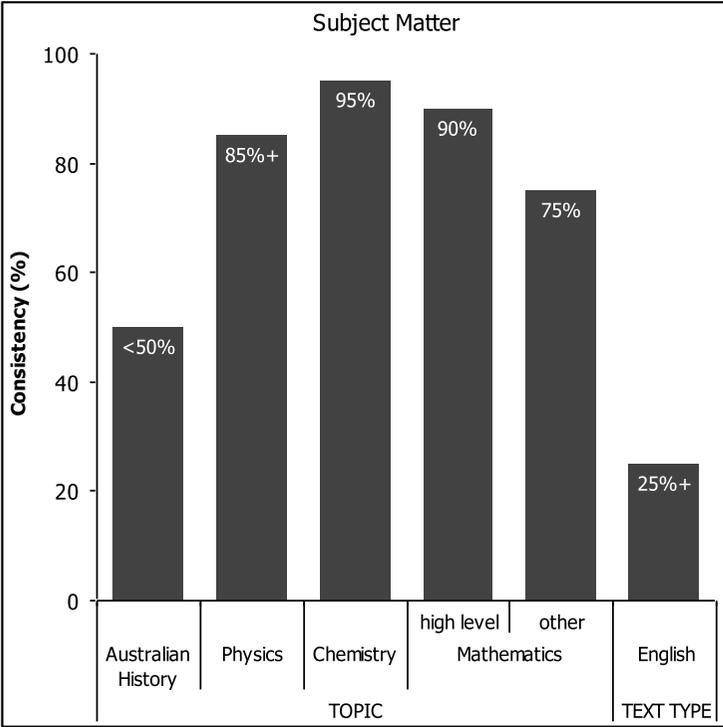
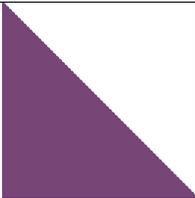
- English (including Literature)
- Mathematics
- Chemistry
- Physics
- Australian History

Curriculum content and achievement standards

- Offered → Common
Consistent
- Common → Essential, desirable,
possible, not desirable,
left out
- Expected,
assessed,
rewarded → Comparable

Commonality

- Mapping
 - Desk analysis
- Product = %
estimate of
consistency
 - Subject matter
 - Skills





Skills, values

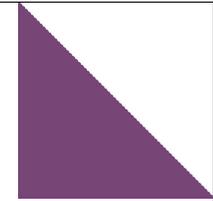
- English (incl. Lit.) 30% +
- Australian History 75% +



English skills

- Making meaning through texts
- Understanding the role of context in text construction and interpretation
- Critical thinking
- Participating in society
- Social cohesion
- Effective communication skills
- Using correct spelling, punctuation and grammar
- Self-understanding
- Developing personal identity
- Understanding values, ideas, attitudes, beliefs; past, present and change
- Understanding cultural diversity

Text type	Cross-AU mandated texts
Total texts over 2 years	Variation across jurisdictions Common requirement is min. 2
Shakespeare	No mandatory requirement Could be selected for study from lists
World literature	No mandatory requirement Could be selected for study from lists
Poetry	No mandatory requirement Could be selected for study from lists
Prose: Novel or Short story	Mandatory
Prose: Other than Novel or Short story	No mandatory requirement Autobiography, biography, travel narratives, common in text lists, can be selected
Film	Films and Film Scripts, in text lists across states, can be selected
Media texts	Mandated in some states as part of Study of Language and/or Issues
Australian Literature	Mandated in some states



Essentialness

- Reviewing
 - Survey (blind)
 - Subject experts
 - Four perspectives
- Products = set of bar graphs + comments



Reviewers

1. Academic
2. Professional
3. Teacher-educator
4. Practitioner



Reviewers' ratings: Text types

Three groups

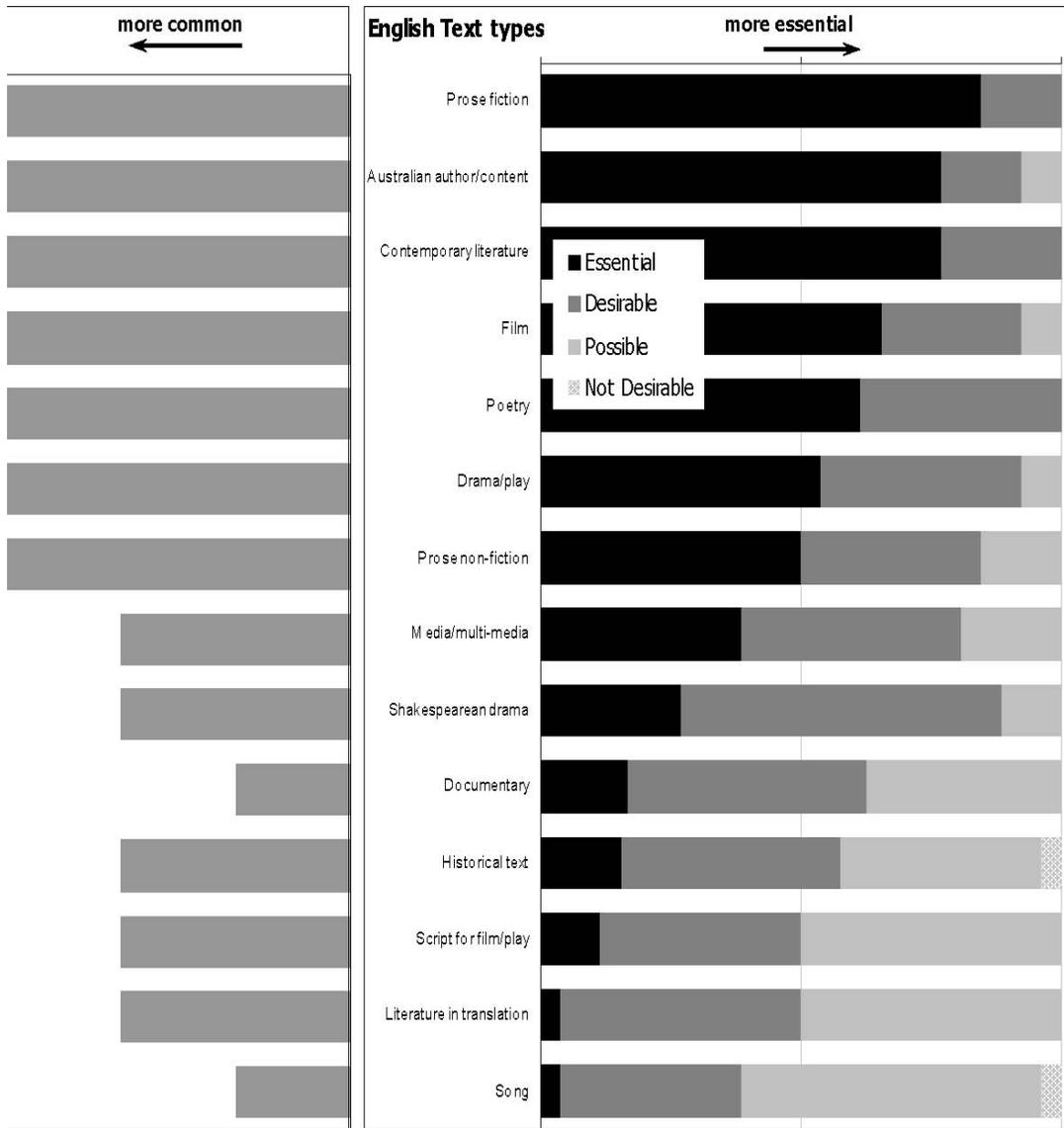
1. Essential

- Top three: Prose fiction, Australian author/content, and
- Contemporary literature

2. Intermediate

- Film to Shakespearean drama

3. Non-essential



Comparability?

- Aspirational standard
- Aspects of performance
- Difficulty of items, questions, exams, tasks
- Assessment differences

- 
- Possible to identify the **kinds of achievements** that states/territories expect, value and assess
 - Not possible to draw conclusions about **relative performance**
 - Different terminology
 - Different assessment regimes
 - Requires primary evidence (i.e. student



Common intentions, different
practices, eight jurisdictions,
Australia circa 2006

- In particular, assessment
 - In particular, getting comparability



Linking results from distinct assessments

Making results of one test or set of
assessment tasks comparable to
those of another



Comparability

Standards are applied consistently across judges (teacher-assessors) and across sites (schools, regions, jurisdictions) so that student performances of **equivalent** standard are recognised as such (e.g. assigned the same grade)



Moderation

Purpose	Form	Form
	Social moderation	Statistical moderation
Validation	y	y
Scaling	N	y

Standardised tests and scaling

	AST in ACT	GAT in VIC	QCS in QLD
Name of test	ACT Scaling Test	General Achievement Test	Queensland Core Skills Test
Used ASAT before	Yes	No	Yes
Developed in present form	1992	1993	1991
Individual results reported	No	No (but available to schools)	Yes (A-E)
Scaling device	Yes	Yes	Yes
Validation device	No	Yes	No

Purpose: Validating teacher judgments

Form	Technique	Examples
Social	Panels; teacher meetings	ACT, QLD, SA, TAS, WA
	Visitation	SA, WA
Statistical	Using external examinations	NSW, SA, TAS, VIC, (WA)
	Using other measures	VIC (GAT)

Purpose: Putting results onto common scale for TE

Form	Technique	Examples
Statistical	Using a standardised test	ACT (AST) QLD (QCS)
	Using external examinations	VIC
	Using other measures	NSW (other subjects)



'A dog's breakfast'

- Situation with Australian curriculum
- Geoff Masters, CEO of ACER, in 'The Sydney Morning Herald' etc.

This mapped against that

AEA	AUS
AP (USA)	AU states
IB diploma	AU states
This is Research 3	

Australian states

IB	GCE
AP (USA)	A-levels (UK)



About Research 3

Terms of reference

1. Investigate the depth, breadth and standards of four HL subjects in the IBD
 - Language A1
 - Mathematics
 - Chemistry
 - History
2. Draw conclusions about they compare



Comparing like with like?

- Matching partners
- AU subset or superset as basis
- Within-AU variation
- Interaction of depth, breadth and time
- 'All exercises in examination comparability present formidable problems ... some of the questions are almost impossible to answer' (QCA, 2003)



Our way of thinking

1. Multiple possible comparisons
2. What determines the answer
3. Assumption about professionalism



1. Multiple possible comparisons

IB curriculum design \Leftrightarrow AU curriculum design

IB assessment (the instrument: exams) \Leftrightarrow
AU assessment (the instrument: exams)

IB assessment (the student: performance) \Leftrightarrow
AU assessment (the student:

2. Relativity of standards of outcomes delivered by different systems/organisations

- Students in IB courses with IB assessments are privileged over students in IB courses assessed under AU conditions
- Students in AU courses with their particular state's assessment system are privileged over students in AU courses assessed under IB conditions
- Can't really compare X and Y but could compare how X and Y go at Z



3. Assumptions about professionalism

I believe that it is highly unlikely that professionals would design a course or adopt procedures for assessment that would overtly deliver sub-standard outcomes for young people, be they IB candidates or students in the AU states' curricula.

It can happen with the IBD, of course, if:

- Excellence gets confused with elitism



Impressions about IBD

- Definite philosophy
- Packaging (vs fragmentation, cherry picking)
- Precision of expression
 - Content specification
 - Markschemes
- Rigour
 - Rhetoric meets reality
- Combining modes/format
 - Exploiting



By-products of IB study

- Nuanced understanding of the limitations of comparative studies
- Clarity about the desirable features of an assessment program, specifically one that includes external examinations
- Being in a prepared state for the period ahead nationally and