

LITERACY AND NUMERACY TEST FOR INITIAL TEACHER EDUCATION STUDENTS

Sample Questions



Australian Council for Educational Research

Literacy Sample Questions

Answers to the literacy questions are provided on page 8.

LITERACY SAMPLE QUESTIONS I TO 6

Questions 1 to 6 relate to the passage Change in Schools.

CHANGE IN SCHOOLS

This text is taken from the introduction to Dancing on a Shifting Carpet: Reinventing traditional schooling for the 21st century (2010).

The contemporary context for schools is often referred to as 'the knowledge era' or 'the knowledge society', characterised by the constant creation and recreation of knowledge; the speed, complexity and interactivity of innovation; and the need for openness to new learning and new ways of thinking about and doing things.

The level of change brought about by the knowledge era, and the pressures of other global and technological changes mentioned earlier, inevitably have an impact on schools. These pressures originate from both external and internal sources. There are external pressures on schools to fix the many social problems caused by rapid change, and to prepare students to live and work in the knowledge society. There are also internal pressures within schools because their clientele – students and families – have changing expectations and needs.

Within the wider external context, schools are seen as instruments of social change and are frequently expected to cure or avert many societal ills by, for example, providing sex and drug education; increasing students' environmental awareness; educating young people in matters of health and engaging them in physical and emotional activities to improve their wellbeing and reduce obesity; and enhancing students' commitment to social justice.

Within schools, the formal academic curriculum has been expanded to meet the social and psychological needs of students. In increasingly fragmented societies, schools are expected to be havens of peace, safety and stability, while still meeting the academic standards set by governments and the social and psychological expectations of families and communities. Teachers and other school leaders are expected to be constantly available and responsive to parents and their concerns, and schools are often held accountable for matters occurring outside regular school hours, which were traditionally the domain of parents and families. When mistakes happen at school, there is a tendency for parents to blame teachers and other school personnel, and to seek legal redress.

All these factors have numerous implications for schools, not the least of which is that they need to change their forms of educational delivery to meet the needs of, and be relevant to, 21st century young people. Back in the late 1980s, Papert and Freire (n.d.) clearly foresaw the need for schools to change rapidly, even radically, if they were to remain vital to society:

... it is inconceivable that school as we've known it will continue. Inconceivable. And the reason why it's inconceivable is that little glimmer with my grandson who is used to finding knowledge when he wants to and can get it when he needs it, and can get in touch with other people and teachers, not because they are appointed by the state, but because he can contact them in some network somewhere. These children will not sit quietly in school and listen to a teacher give them pre-digested knowledge. I think that they will revolt. (Part 2)

The revolt may not have happened as yet, but the Australian Government is now talking about the need for a revolution in education and schools (Department of Education, Employment and Workplace Relations, 2008). The core of this 'revolution' focuses on the quality of teaching, the quality of learning and the quality of student outcomes. Conventional teaching and learning modalities are under widespread critique.

Source: Leoni Degenhardt & Patrick Duignan, *Dancing on a Shifting Carpet: Reinventing traditional schooling for the 21st century.* ACER Press, 2010.

Literacy Sample Question 1

The changes in schools recommended in the text can best be summarised as

- **A** increasing academic rigour.
- **B** responding to a range of competing demands.
- **C** prioritising community wishes over government directives.
- **D** using technology to achieve traditional goals more successfully.

Literacy Sample Question 2

According to the text, how do parents tend to respond to problems at school?

- **A** by blaming societal ills
- **B** by blaming someone in the school
- **C** by calling for increased resourcing
- **D** by calling for the curriculum to be expanded

Literacy Sample Question 3

... schools are expected to be havens of peace, safety and stability ... (paragraph 4)

According to the text, why is this more expected of schools today than in the past?

- A because society no longer gives this kind of support
- **B** because these qualities have been shown to enhance learning
- **C** because authorities are committed to avoiding student revolts
- **D** because parents have given up on trying to control their children

Literacy Sample Question 4

Back in the late 1980s, Papert and Freire (n.d.) clearly foresaw the need for schools to change rapidly, even radically, if they were to remain vital to society. (paragraph 5)

Which word in this sentence indicates that the writers endorse the position of Papert and Freire?

- A clearly
- **B** rapidly
- **c** radically
- **D** vital

Literacy Sample Question 5

How does the quotation from Papert and Freire relate to the rest of the text?

- **A** It summarises the text's main position.
- **B** It documents the origin of the text's main idea.
- **C** It suggests a solution to a problem raised in the text.
- **D** It provides a more extreme point of view than the text.

Literacy Sample Question 6

Papert and Freire refer to the learning experience of a contemporary child (my grandson).

Do Papert and Freire identify the features listed below as part of this child's learning experience? Select 'Yes' or 'No' for each feature.

Feature	Yes	No
immediacy	0	0
diverse sources of information	0	0
respect for authority	0	0

LITERACY SAMPLE QUESTIONS 7 TO 10

Questions 7 to 10 relate to a school history excursion, described in the following passage.

HISTORY EXCURSION

Our Year 9 students will be spending two weeks in a rural community to learn more about <u>life there</u>. Students will focus on issues that have affected <u>these settlements</u> over time. <u>They</u> will be given opportunities to meet and talk with local residents. Students will work on assignments designed to help explain <u>their history</u>. All students have been given explicit instructions about how to record their findings during the excursion.

Literacy Sample Question 7

Which underlined reference in the text is ambiguous?

- A life there
- **B** these settlements
- C They
- **D** their history

Literacy Sample Question 8

All students have been given explicit instructions about how to record their findings during the excursion.

Which of the following is closest in meaning to explicit?

- A extensive
- **B** simple
- **C** hands-on
- D clearly stated

Literacy Sample Question 9

Below are four versions of a sentence from a student's assignment about the history excursion.

Which version has acceptable punctuation?

- A 'Our community, is not static,' she said. 'It is constantly changing.'
- **B** 'Our community is not static' she said 'it is constantly changing.'
- **C** 'Our community is not static,' she said. 'It is constantly changing.'
- **D** 'Our community is not static, she said, it is constantly changing.'

Literacy Sample Question 10

If the sentence below contains a spelling error, correct the error by writing the word as it should appear; if there is no error, write N.

It is no exageration to say that the students' insights into historical processes and social conditions were impressive.

Literacy answers

Literacy Sample Questions		
Question 1	В	
Question 2	В	
Question 3	А	
Question 4	A	
Question 5	D	
Question 6	Yes, Yes, No in that order	
Question 7	D	
Question 8	D	
Question 9	С	
Question 10	exaggeration	

Answers to the numeracy questions are provided on page 18.

SECTION ONE

Calculator available. Pen and paper may be used.

Numeracy Sample Question 1

EDUCATION EXPENDITURE

Government operating expenditure on education refers mainly to money spent on schools and tertiary education.

Of the total operating expenditure on education in 2011–2012, 51% was spent on primary and secondary education and 36% on tertiary education (universities and TAFEs).

What percentage of the total operating expenditure on education in 2011–2012 was spent on the remaining aspects of the education budget?

%

Numeracy Sample Question 2

GYM COSTS

Here is the schedule of costs for Gym and Swim memberships at a sports facility.

	Gym only (\$)	Swim only (\$)	Gym and Swim (\$)
12 Months (upfront)	596	461	773
12 Months (monthly debit)	51	33	66
6 Months (upfront)	330	295	502
Casual (per visit)	12	5	15

For a 12-month 'Gym and Swim' membership, how much **more** does it cost to pay by monthly debit rather than upfront?

\$

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NUMERACY SAMPLE QUESTIONS 3 AND 4

SCHOOL DIRECTIONS

Beckett Primary School is located at grid reference D3 of this street map.



Angela is driving south along Bruce St (reference A1).

Which of these directions would lead Angela to Beckett Primary School? Select 'Yes' or 'No' for each set of directions.

Directions	Yes	No
Go right into Kenny St, right into Power St, right into Allen St.	0	0
Go east into Kenny St, south into Power St, east into Allen St.	0	0
Go east into Kenny St, across Power St, south into Conway St, right into Allen St.	0	0

Numeracy Sample Question 4

The side-length of each grid square is 400 metres.

Which of these values is closest to the area of Beckett Primary School in square metres?

- **A** 1000
- **B** 4000
- **C** 10000
- **D** 40000
- **E** 80000

SCIENCE RESULT

This table shows the overall achievement required for different awards in a tertiary science subject.

Award	Achievement
High Distinction	80% and over
Distinction	70%–79%
Credit	60%-69%
Satisfactory	50%-59%
Unsatisfactory	below 50%

The science subject has three assessment tasks. Each task is weighted as follows:

Assessment Task 1: weight 60% Assessment Task 2: weight 30% Assessment Task 3: weight 10%

Alex's result for each task was:

Assessment Task 1: 70% Assessment Task 2: 80% Assessment Task 3: 90%

What is Alex's award for science?

- A High Distinction
- **B** Distinction
- **C** Credit
- D Satisfactory

PLAYING SPORT

These graphs show the percentage of children (11–13 years) playing sport at different times during school days and during non-school days.

school days percentage time of day non-school days percentage time of day

Percentage of Children Playing Sport

Source: University of South Australia (2004), Children in Sport

The table below contains statements about the graphs.

Select 'True' or 'False' for each statement.

Statement	True	False
On school days, the highest percentage of children playing sport at any one time is less than 25%.	0	0
At any given time on a non-school day, approximately 90% or more of children were not playing sport.	0	0
At 5 pm, fewer children were playing sport on school days than on non-school days.	0	0

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VET COURSES

A secondary school offers one-year Vocational Education and Training (VET) courses.

Courses may be taken at one of three levels: Certificate I, II or III.

Students may enrol for only one certificate within each school year.

This table compares the number of students enrolled in one of the courses with the number of students who completed a qualification in that course.

	Certificate I	Certificate II	Certificate III	Total
Number of students enrolled in January 2011	97	18	5	120
Number of students completed in December 2011	50	13	3	66

What percentage of the total enrolments completed VET Certificates at the school in December 2011?

_____%

BAND ACHIEVEMENT

This graph shows the percentage of Year 3 students in six achievement bands for reading, for a selected school.

It also shows comparable percentages for statistically similar schools and for all Australian schools.

Year 3 Reading Percentage of students in each band Selected school Statistically similar schools Australian schools 6 or above Band

The table below contains some statements about the graph. Select 'True' or 'False' for each statement.

Statement	True	False
A higher percentage of Year 3 students at the selected school achieved at Band 4 compared to students at statistically similar schools.	0	0
At the selected school, more Year 3 students achieved at Band 4 than at any other band.	0	0
A greater percentage of the Year 3 students at the selected school achieved above Band 3 compared to Year 3 students at statistically similar schools.	0	0

SECTION TWO

Calculator **not** available. Pen and paper may be used.

Numeracy Sample Question 9

ONE HUNDRED BOXES

The weight of a box of stationery is 3.2 kilograms.

What is the weight of 100 such boxes?

kilograms

Numeracy Sample Question 10

GEOGRAPHICAL DISTRIBUTION OF AUSTRALIANS

The Australian Bureau of Statistics conducts a census every five years. In 2011, the population of Australia was 22 million. About 2% of these people lived in remote or very remote areas.

About how many people lived in remote or very remote areas in Australia in 2011?

- **A** 11 000
- **B** 44 000
- **C** 110 000
- **D** 440 000

Answers to the numeracy questions are provided on the next page.

Numeracy answers

Numeracy Sample Questions		
SECTION ONE: Calculator available.		
Question 1	13	
Question 2	19	
Question 3	No, Yes, Yes in that order	
Question 4	D	
Question 5	В	
Question 6	True, True, False in that order	
Question 7	55	
Question 8	True, False, True in that order	
SECTION TWO: Calculator not available.		
Question 9	320	
Question 10	D	

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