

68th Annual Report



ACER

Australian Council for Educational Research

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Australian Council for Educational Research



ACER's mission is to provide high quality educational research, services and materials to improve educational policy and practice. Since 1930 ACER has worked to create and disseminate knowledge and tools which can be used to improve student learning.

Underlying our objectives as an organisation is our belief in the importance of education both for the fulfilment of individuals and for the well-being of society, and our commitment to systematic investigation, evaluation, and critical reflection in improving education.

As an independent, not-for-profit organisation, we are able to bring a high level of expertise and objectivity to our work.

Research

Our research projects investigate topics of importance to Australian education and play a significant role in shaping education policy and direction for parents, teachers, schools and governments.

ACER staff have developed a special strength in the area of large scale survey research. We are uniquely placed within Australia to mount longitudinal studies of student progress through school and into the world beyond school. Our staff also have high levels of expertise in the study of classroom teaching and learning, in the economics of education, and in educational measurement and statistical analysis.

As a national organisation, we are well placed to undertake Australia-wide studies to address research questions of importance in all States and Territories.

These research projects are funded either through annual research grants provided by State, Territory and Commonwealth government education authorities, or by individual commissioning agencies.

Services

Other ACER projects are based on services we provide to the education community, such as selection and scholarship tests for schools and universities. Most of these tests, including the *Graduate Australian Medical School Admissions Test*, are developed and administered annually by ACER. The *Special Tertiary Admissions Test* and the *Cooperative Scholarship Testing Program* are two of the larger assessment services delivered throughout Australia.

International training workshops are another important element of our educational services. These workshops are provided in overseas locations as well as being available to staff wishing to be trained in Australia.

Materials

ACER develops and distributes educational materials such as tests, kits, books and software. Some of our materials development occurs as part of externally commissioned projects. Other work leads to products that

are distributed through ACER Press. The new *Aptitude Profile and Test Series*, featured in this report, is an example of a product being developed to fill a gap in the assessment materials currently available to schools and employers.

Our 120 staff are engaged in a range of projects, including commissioned research studies, the provision of educational services, and the development and dissemination of educational materials for sale. Some of these projects are highlighted on the following pages.

Recent Developments

As a dynamic research organisation, ACER is involved in numerous projects and is continually reviewing, developing and reporting on its various projects and services. Following are some significant ACER activities during 1997-98:

Insights from TIMSS Conference

ACER's National Conferences provide an excellent forum for discussing recent research and generating debate on topical issues in education. They form an integral part of ACER's commitment to investigating and critically appraising the education system in Australia.

The first ACER National Conference brought together Australian educators to consider the next steps for mathematics and science curriculum and teaching in light of the release of the *Third International Mathematics and Science Study (TIMSS)* results. The conference, Raising Australian Standards in Mathematics and Science: Insights from TIMSS, highlighted the importance of investigating teaching practices and discussed the implications of the results for Australia.

ACER administered the Australian component of TIMSS in 1994-95 and released reports on the findings. ACER administered the Australian component of the TIMSS-R study of lower secondary students in late 1998.

Conference on Universities

ACER's second National Conference, *Universities: Enduring Institutions?* drew together a distinguished group of speakers to discuss the future of Australia's universities.

Guest of honour, and Chair of the ACER Council and Board of Directors, Emeritus Professor Peter Karmel, foresaw Australian

universities sliding into a "morass of mediocrity ... if resources did not keep pace with rising enrolments". Other speakers addressed the threat to generalist arts degrees, funding for higher education research and the need for a coordinated approach to communication technology.

OECD Survey

ACER's international research experience was a key factor in its success as the leader of an international consortium that won a four-year contract to survey the performances of 15-year-olds in reading, mathematics and science for the Organisation for Economic Cooperation and Development (OECD).

The international survey of 25 OECD member countries aims to develop outcome indicators to document levels of student learning. Commencing in 2000, the program for international student assessment will be conducted on a three-year cycle. ACER is managing the project and is involved in all aspects of psychometric analysis, research, and test development.

Cambodia/Australia National Examinations Project (CANEP)

Late in 1997 ACER embarked on a five-year joint venture project with IDP Education Australia for work in Cambodia on the country's examinations system.

CANEP aims to assist the Government of Cambodia to develop a more reliable and valid national examinations system. The project will focus on grades 12 and 9, and will work towards the establishment of a National Examinations Board for Cambodia. An ACER consultancy team had previously worked for three years on the grade 11 examination system in Cambodia for AusAID.

ACER Assessment Services

A large part of ACER's work relates to assessment projects and testing services for schools, systems and universities. To focus its expertise in this area, ACER established the ACER Assessment Services section in 1997. Under the management of Ms Deirdre Jackson, the new section is responsible for extended projects such as the *Graduate Australian Medical School Admissions Test*, *Cooperative Scholarship Testing Program* and *Special Tertiary Admissions Test* as well as the many other assessment services currently provided by ACER.

Valuing Educational Research

Geoff N Masters

The corporate purpose is the reason why any organisation was formed and why it continues to exist. It is the justification for its very existence, its raison d'etre, ... and the sole criterion by which one may judge whether the organisation is a success or a failure. i

The Australian Council for Educational Research declares its corporate purpose in its name: it is *for* educational research. But how is the success or failure of an organisation that claims educational research as its defining purpose to be judged?

In addressing this question, it is instructive to consider how other forms of research—medical research, for example, or agricultural research—might be evaluated. What are the purposes of these forms of research, and how is their success or failure assessed?

The purpose of medical research is to create and disseminate knowledge and tools which can be used to improve human health. Although medical practitioners and medical institutions benefit from the availability of new knowledge and new techniques, medical research is conducted in the first instance for

the benefit of patients, or in the interests of public health generally. The criterion in terms of which medical research must be judged is its success in creating knowledge and tools which can be used to improve the quantity and quality of human life.

The purpose of educational research is to create and disseminate knowledge and tools which can be used to improve learning. Improvements to learning can take many forms, including quantitative improvements in achievement (e.g. increased literacy levels among disadvantaged students); qualitative changes in the kinds of learning taking place (e.g. greater emphasis on higher-order skills, attitudes and values); and the development of more efficient or cost effective ways of achieving learning outcomes.

The improvement of learning is the objective that drives (or should drive) all educational research. Research into teacher practices, curriculum materials, ways of organising and managing educational institutions, teacher professional development, assessment and reporting practices, successful transition from school to work—indeed any educational research topic one wishes to name—has as

value. vi to appreciate, regard highly;
value. v. to estimate the worth of;
values. n. principles or standards

its ultimate purpose the improvement of learning. If it did not, it is difficult to see how it could claim to be *educational* research. All educational research ultimately must be judged in terms of its success in creating knowledge or tools which can be used to improve learning.

A sense of duty

In his 1997 article in *Educational Researcher*, Michael Scriven argues that educational research has a 'duty' to society to create knowledge that can be put to practical use. He, too, draws a parallel with medical research:

If medical research had only contributed explanations of disease but had neither identified nor developed any successful treatments, we would surely say that it had failed in its principal duty. ⁱ

If Scriven's argument is correct, then educational research not only has a clear purpose, it also should be driven by a sense of duty to go beyond simply describing and understanding educational practices to have an impact on improving practice. If this 'duty'

is taken seriously, then some forms of research will be given higher priority than others. For example, research into the most effective ways of using information technology to enhance learning probably will be given higher priority than a study designed only to establish and document the prevalence and uses of computers in classrooms.

Working with practitioners

Useful lessons also may be learned from the relationship between research and practice in other areas of human endeavour, such as agriculture. Research in support of Australian rice farming, for example, has a clear purpose: to create knowledge and techniques which can be used to make qualitative and quantitative improvements in rice production (e.g. to increase crop yield, to improve farming efficiency in terms of water usage, to create new strains of rice for niche markets).

In this research, the role of the researcher is clear. The practitioner (farmer) looks to, and depends on, research for innovations to improve farm output. The researcher and farmer work together to achieve this result, for example during farm visits by the researcher to analyse local farm conditions.

And the criterion for judging the success or failure of the researcher's efforts is unambiguous.

It is interesting to consider what a relationship of this kind might look like in education: a relationship in which the researcher is clearly focused on creating knowledge to improve practice; in which the practitioner looks to and expects research to be of obvious practical benefit; and in which the researcher visits and works with the practitioner to design strategies to improve local output.

Research syntheses

To be helpful to practice, the conclusions of past research must be readily accessible by practitioners. What is known about the best ways to improve the health of patients with a particular medical condition? What is known about the best ways to improve the yield and quality of a particular crop under various soil conditions? What is known about the best ways to develop the early numeracy skills of Indigenous children in remote communities? What does research say about the impact of different class organisations and grouping arrangements on student learning? What works in developing students' understandings of the relationship between force and motion?

Just as medical and agricultural practitioners use syntheses of past research to assist in day-to-day decision making, educational practitioners could benefit from convenient access to available research findings. Given the many thousands of person-years spent on research in education, it seems surprising that the findings of this research do not play a greater role in the day-to-day decision making of educational practitioners.

Sharper questions

Perhaps a key to improving the usefulness of much educational research would be a sharper focus on the *research questions* being addressed. Every researcher engaged in a research study should be able to answer the questions:

- What is the question (or questions) you are trying to answer?
- What are some possible answers to this question?
- What would be the implications for educational practice of each of these possible answers?

Many research studies in education proceed without an explicit specification of the

questions they are attempting to answer. Instead, they are conducted as data gathering exercises in some area of educational activity, presumably in the hope that the data, when carefully analysed, will yield useful insights. And, if sufficient data are collected, they frequently do. But too often the reported 'findings' of this form of research are the one or two most interesting bits of information caught in the research net.

A sharper focus on research questions requires an intention to do more than map and document the *status quo*. It requires more than the investigation of broad research 'topics'. It involves an active search for better answers to the question 'What can be done to improve learning?'

Better communication

Another key to ensuring that research serves educational practice is the development of better methods for making research findings available to practitioners. As in other fields of research, it is essential that advances in educational knowledge are published in relevant research journals. But the most effective way of making research findings available to practitioners may be through new procedures, tools or techniques, accompanied by training in their implementation.

Each of the strategies outlined above is likely to be helpful in enhancing the contribution of research to educational practice:

- a recognition that the purpose- indeed duty- of educational research is to improve learning;
- an emphasis on research to improve local practice;
- syntheses of current knowledge about what works to improve learning;
- the specification and attempt to answer explicit research questions; and
- improved methods of making research results available to practitioners.

Ultimately, the contribution of research to education depends on its success in creating knowledge and tools which can be used to improve learning, and it is against this criterion that the success or failure of an organisation that claims to be *for* educational research must be judged.

Argenti, J (1989). *Practical Corporate Planning*. Unwin Paperbacks: London.

- i Scriven, M (1997). The Vision Thing: Educational Research and AERA in the 21st Century. Part 1: Competing Visions of What Educational Researchers Should Do. *Educational Researcher*, 26(4), 19-21.

Benchmarking against the world

How do our nine-year-olds, 13-year-olds, and final year secondary students compare with the rest of the world in maths and science?

Australian students are among the best in the world - consistently ranking in the top four groups of countries, and scoring higher than most other countries on environmental issues, algebra, geometry, and the nature of science.

These are some of the findings of the *Third International Mathematics and Science Study* (TIMSS) conducted in 1994 and 1995. The study was the largest, most comprehensive, and most ambitious comparative study of mathematics and science learning ever undertaken. More than half a million students from three stages of their schooling in 45 countries took part.

Dr Jan Lokan oversaw the Australian component of the study. Her team has been involved in consultation work for the project since 1991. The development of the tests was a collaborative process and many countries' curriculum guides and textbooks were analysed to identify priority topics.

'Technological developments require students to have much higher levels of mathematical, scientific and critical reasoning knowledge than those needed by people even a decade ago. This study

pinpoints the levels students around the world are reaching, and indicates more effective methods of teaching and learning," Dr Lokan said.

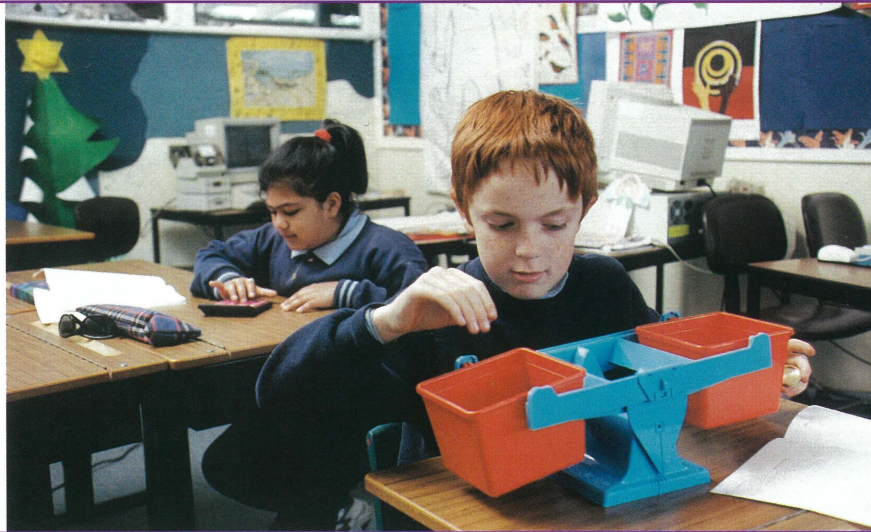
Almost 30 000 Australian students were tested in basic mathematical and scientific knowledge and higher order skills such as problem solving, mathematical reasoning and working scientifically. The tests required students to select or write answers and involved some hands-on activities.

Results

For the primary and secondary school studies, two adjacent year levels (upper and lower grades) were tested in each State to encompass the greatest proportion of nine or thirteen-year-olds. Differences in school entry ages mean the common age of students in each year level changes from State to State.

At primary school level, nine-year-olds (from lower grade Years 3 and 4 or upper grade Years 4 and 5) were tested:

- Students in Years 4 and 5 (upper grade) tied seventh with five other countries in maths and tied in third place in science.



- Students in Years 3 and 4 (lower grade) placed second with six other countries in science and tied fifth with eight other countries in maths.

Thirteen-year-old secondary school students (lower grade Years 7 and 8, or upper grade Years 8 and 9) were tested:

- Eight countries tested better in maths, and four in science than Australian Year 8 and 9 students (upper grade).
- In both maths and science, seven countries tested better than Australian students in Years 7 and 8 (lower grade).

Results for the final year students involved in the testing were released in 1998. These results showed:

- Australian advanced maths students are in the highest group with nine other countries.
- In physics, only Norway and Sweden were better than Australia.
- Australia placed equal second with 11 other countries in maths and science literacy.

The international psychometric scaling of results was conducted by ACER.

Next phase

Dr Susan Zammit and her team are now involved in the *Third International Mathematics and Science Study - Repeat* (TIMSS-R), which will collect a whole new set of statistics from 43 countries.

Dr Zammit said, "TIMSS-R is also designed to measure growth in achievement as the 13-year-old students involved in the 1998 study are the same cohort that participated as nine-year-olds in the original TIMSS study in 1994".

"It will be very exciting to see how Australian students perform this time."

TIMSS was sponsored by the International Association for the Evaluation of Educational Achievement (IEA). The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) funded the 1994 study and the 1998 TIMSS-R study in Australia.

Social Development

Schools have always had a vision of the kind of people they want to produce, but do schools live up to their goals?

Australian students consider racial equality and protecting children from harm to be extremely important issues, but older students are more pessimistic than younger students about Australia's commitment to environment protection in the future.

These are just some of the findings of a recent study led by Dr John Ainley. The study is one of the most comprehensive national studies of student social attitudes and the role schools play in student social development.

The resulting report, *Schools and the Social Development of Young Australians*, details the importance young people place on issues such as relating to others, social rules and conventions, how interested they are in continued learning, and their confidence in themselves. More than 8000 students from 350 schools around Australia took part in the survey.

Dr Ainley said, "the social development of young people has long been a concern of schools, and this study set out to discover the extent to which often broad social policy objectives result in action - in the level of social development schools provide".

Student views

The survey and subsequent report reveal much about the means through which, and the extent to which, Australian schools provide for the social development of young people.

Some of the study findings include:

- 66 per cent of students consider 'helping a friend who is in trouble' to be extremely important to them;
- 'making sure that people of all races are treated equally' is extremely important to two-thirds of students;

Schools not only teach subject matter and develop instrumental skills - they are necessarily involved in shaping people.



- two-thirds of Year 5, but less than one-third of Year 10 students consider that 'respecting society's rules and laws' is extremely important;
- little more than half of the Year 5 students and a little under half of the Year 10 students were extremely interested in issues relating to learning;
- more than 80 per cent of students mostly or almost always thought they would reach their goals in life, and more than half thought that 'near enough is not good enough';
- nearly 75 per cent of Year 5 students, but only 40 per cent of Year 10 students agreed with the statement that 'in the future we will look after the environment better'.

Dr Ainley said, "we found differences between the attitudes of boys and girls, as well as between the two year levels, but the report shows overall that students are

positive about their futures and have developed a sense of social responsibility in many areas that are considered important in a 'good citizen'".

"Schools do not only teach subject matter or develop instrumental skills - they are necessarily involved in shaping people. This study shows us that good schools deliberately provide opportunities for young people to develop in these areas, and indicates a curriculum and policy direction for the future."

The survey, commissioned by the Department of Employment, Education, Training and Youth Affairs (DEETYA), covered six dimensions underlying the social objectives of schooling: relating to others; commitment to community well-being; conformity to rules and conventions; interest in learning; self-confidence; and optimism about the future.

Indigenous Education

Research into the transition from school to work and the English literacy skills of Aboriginal and Torres Strait Islander students is forming a clearer picture of Indigenous education.

From school to work

"We found consistently poorer job market outcomes for Indigenous youth compared with non-Indigenous youth with the same levels of educational attainment and geographic location," said Project Director, Mr Mike Long.

The unique study into the school to work transition of Indigenous Australians involved an extensive review of the available literature and statistical data.

"Statistics showed that at least one third of Indigenous males and a half of Indigenous females aged 20-24 were not in education," Mr Long said.

Other findings from the study include:

- Higher education may not be enrolling those Indigenous youth who have the best school outcomes;
- Equity in school participation and retention has not improved in recent years.

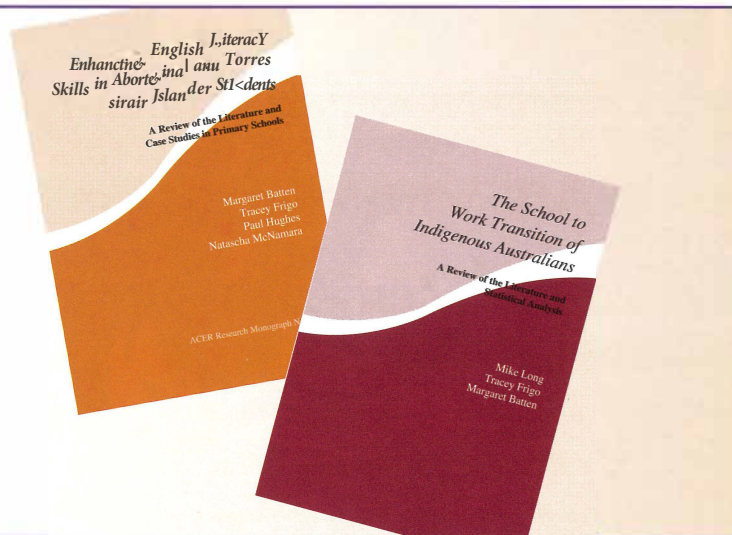
"The statistics confirmed what was already well documented in the literature - that Indigenous youth continue to experience considerable disadvantage at each stage of transition from school to work," said Mr Long.

English literacy

In a separate report, *Enhancing English Literacy Skills in Aboriginal and Torres Strait Islander Students*, researcher Ms Tracey Frigo identified many strategies that teachers and schools can adopt to enhance the English literacy skills of their Aboriginal and Torres Strait Islander students.

"By Year 3 of their schooling, the English literacy achievement of many Indigenous students is lower than that of other students," said Ms Frigo.

"This report identifies some of the reasons, and describes 12 case studies of primary schools which provide programs that enhance opportunities for the English literacy development of this group of students."



Some strategies for enhancing English literacy skills include:

- Teachers constantly and consciously modelling Standard Australian English while at the same time acknowledging the value of the cultural and linguistic background of their Aboriginal students. This helps students who speak Aboriginal English at home to make the transition to Standard Australian English as used in the classroom.
- Recognising the diverse needs of students. For example, where appropriate, organising learning tasks that require working and sharing with a partner or small group rather than working alone; and hands-on, concrete learning rather than abstract learning.
- Developing homework centres to help students keep up with their work and receive guidance and support.

"Good teaching practices can contribute to fairer outcomes for Indigenous and non-Indigenous Australians," said Ms Frigo.

Positive research

"There is a great demand for this type of information based on evidence, and there is an even greater demand for research which identifies successful outcomes," Ms Frigo said.

"Positive research acknowledges the diversity of Indigenous Australians and the various challenges they face, but also provides a model for success."

"We need to think of ways forward, and this kind of research - which not only draws together a vast body of literature, but identifies successful outcomes and strategies - provides an excellent starting point for addressing the needs of Aboriginal and Torres Strait Islander students."

A further study of the English literacy development of Indigenous Australians in the early years of schooling is planned by ACER's Aboriginal and Torres Strait Islander Education Advisory Committee.

These studies were funded by the Department of Employment, Education, Training and Youth Affairs and ACER in association with its Aboriginal and Torres Strait Islander Education Advisory Committee.

Cambodia Exams

Developing a valid, reliable and equitable examination system is an issue of significant concern to the Government of Cambodia.

"Improving the examination system will improve standards in the education system, and improving education standards will support the development of Cambodia in general," said Project Co-Director, Mr Doug McCurry.

"The Cambodian Government recognises this, and has made a commitment to developing their education system. That's why we were asked to become involved."

That was in 1994, and since then Mr McCurry and Mr George Morgan have produced a design for a five-year project of examination development. They have also been providing short-term technical support and advice to the Cambodian Government on how to improve their examination system.

Revitalising, monitoring and training

Before the new coalition government was formed in 1994, the final year of secondary school exams in Cambodia had been set centrally, but marked and administered provincially.

The new Cambodian government decided in 1994 that, rather than having local teachers administer and mark exam papers, teachers would be sent from one province to another to administer the exams and then return to their own province to mark them. The result of these changes in the administration and marking of the exam was that the pass rate of 76 per cent in 1993 dropped to eight per cent in 1994.

"Obviously something was going wrong, and the procedure needed to be changed to provide a more credible and manageable system," said Mr McCurry.

The project design developed out of the short-term technical assistance comprises three key elements: infrastructure and systems development, exam paper revitalisation, and monitoring of educational standards more generally. The project is fundamentally about training, and the exam development and standards monitoring activities provide the context for training staff of the Cambodian Ministry of Education.

Improving the examination system will improve standards in the education system, and improving education standards will support the development of Cambodia in general.



"We view the whole project as a development and training program. Training takes place as we work with the Government of Cambodia to revitalise the exam system and to develop new monitoring processes and exam infrastructure."

"Education systems also need to be able to evaluate their performance," said Mr McCurry.

"We recently conducted a standards monitoring test for Year 8 students and discovered that while they performed about as well as Cambodian educators had expected in numeracy and reading, their writing skills were well below the standard expected."

The results of the monitoring test provide an excellent base to start thinking about what is happening in Cambodian schools, and is the beginning of an ongoing monitoring process that will be taken over by Ministry trainees in later years of the project.

Future improvements

Continuous infrastructure development and the introduction of central marking in Phnom Penh have significantly improved the exam system.

"There are slow but significant changes in the system, starting with things such as providing computers for processing and recording exam results, training staff to write exams and analyse exam results, through to such details as supplying metal boxes for the secure distribution of exam papers."

"Although the logistical challenges of establishing teams in Australia and Cambodia are enormous, this type of project has far reaching implications for education systems in other developing countries."

The project is a joint venture with IDP Education Australia and is sponsored by AusAID.

Selecting Tomorrow's Doctors

Aspiring doctors are put through their paces in the Graduate Australian Medical School Admissions Test (GAMSAT).

"GAMSAT is an exciting development in the education of Australian doctors. For the first time, skills in communication and the arts are recognised as valuable to the study and practice of medicine. Graduates of any discipline can now register to sit GAMSAT and apply to the graduate-entry medical schools," said Project Manager, Cecily Aldous.

"While arts, humanities, and law graduates currently make up less than six per cent of candidates sitting GAMSAT, they perform extremely well relative to their numbers."

Ms Aldous' team has worked closely with The Flinders University of South Australia, The University of Queensland, and The University of Sydney since 1994 to develop and administer GAMSAT. Designed to assess the capacity of candidates to undertake high level intellectual studies in a medical course, **GAMSAT** is offered once a year (in April) and is one component of the entry criteria for these medical courses.

"The universities, which have formed a consortium for the purposes of the graduate-

entry programs, have developed new problem-based learning curricula, - a major change in medical education. Together we designed GAMSAT to test the abilities of graduates in basic sciences as well as their problem-solving, communication, and critical thinking skills," said Ms Aldous.

The test has three sections:

- Reasoning in Humanities and the Social Sciences
- Written Communication, and
- Reasoning in Biological and Physical Sciences (incorporating biology and chemistry to first year university level and physics to Year 12 level)

Preparation is the key

"Nearly all candidates will need to do some specific preparation, most commonly some intensive revision of the basic sciences. To help with test preparation we have produced three collections of practice materials which are available for candidates to purchase," said Ms Aldous.

A good GAMSAT score is one of the prerequisites for candidates wanting to enter a graduate medical school in Australia.



Candidates are able to sit GAMSAT in each capital city in Australia and in Townsville. Centres for international candidates and Australians living overseas are located in Wellington, New Zealand and also in Kuala Lumpur, London, Los Angeles, and Washington DC.

While applicants must have an appropriate GAMSAT score before they can be considered for entry to one of the medical programs, they must also satisfy two other criteria: good results in a Bachelors degree, and satisfactory performance at an interview. Each university weights the criteria differently.

Further applications

"In the future other faculties, particularly in the health sciences, may use the graduate-entry model for their courses, and for that reason the context of GAMSAT is not specifically medical," said Ms Aldous.

"This type of testing model can be adapted to suit other kinds of graduate-entry program. Communication skills, lateral thinking and many other areas of ability can be assessed to get a better picture of an applicant's capabilities."

Administering this program is a full time job for Ms Aldous and the team at ACER - from developing the test materials, running candidate enquiry lines and overseeing the registration process, to coordinating the Australian and international test centres and liaising with the medical schools.

"We also act as the National Admissions Centre for the graduate-entry medical schools, so the whole process is streamlined," said Ms Aldous.

The University of Melbourne has recently confirmed its decision to offer a graduate-entry medical course and join the GAMSAT program from 1999.

Schools and employers place great value on reasoning skills, but are there different kinds of reasoning?

Verbal reasoning, quantitative reasoning, and abstract reasoning skills have long been recognised by schools and employers as important indicators of a person's potential for growth and development in education, training and the workplace. The new *Aptitude Profile Test Series* (APT Series) is designed to yield measures of this potential. It includes modules that assess these reasoning skills, as well as a module that measures 'spatial-visual' reasoning skills.

Test developer Mr George Morgan believes that when assessing a person's potential for education and employment it is important not to overlook the person's 'spatial-visual' reasoning skills. Being successful in the modern world is often dependent on having good spatial-visual reasoning.

"In our work to develop the spatial-visual reasoning module for the APT Series, we experimented with various designs, and adopted a design that not only provides measures of lower-level spatial-visual reasoning skills but also measures of higher-level skills," Mr Morgan said.

"Abstract spatial-visual tasks are included as well as tasks taken from the real world."

Testing capabilities

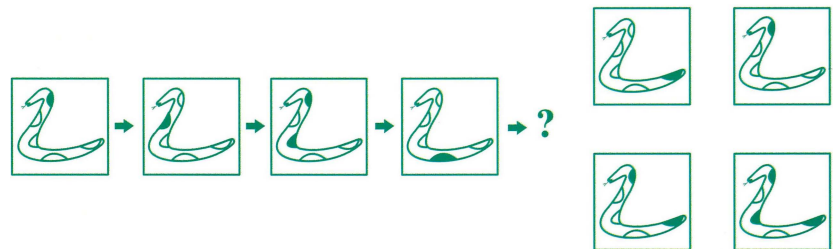
The spatial-visual module of the APT Series involves three kinds of questions: two-dimensional objects/pattern flipping, three-dimensional objects involving maps and side views, and nets of cubes. These questions test a person's ability to manipulate objects in their mind and to imagine how they would look from different perspectives.

"Architects, artists and furniture removalists, to name a few, all need to have good spatial-visual skills," said Mr Morgan.

The Quantitative Reasoning module tests three areas: abstract numeric (e.g. fractions, percentages, etc.), short word problems, and problems that require more extensive reading, comprehension and processing of information to find the correct solution.

The Verbal Reasoning module tests two kinds of verbal analogy (matching words which best describe a feeling or concept, and matching pairs of words), semantic comprehension (e.g. linking similar meanings in proverbs or sayings), and vocabulary (e.g. linking words that are the closest in meaning).

Linear series, and sequences and series in more than one dimension, are measured in the Abstract Reasoning module, which also contains some of the new spatial-visual assessment material.



The Abstract Reasoning module assesses a person's ability to reason in an abstract context in which one or more rules must be identified. The module challenges test takers to identify hidden rules that underlie patterns and sequences of patterns, presented in one or more dimensions.

Measurement of success

The APT Series comes in two strands, organisational and educational, and was devised mainly as a guidance and selection tool for vocational, employment and educational purposes. The test can be tailored for use in many other areas - its modular format allowing greater flexibility in the variety of ways it can be used.

Each module has a number of separately timed parts, and scores are provided for the parts as well as for the whole test. The total test time for each module is 30 minutes. When a module is administered, the test takers are taken through the parts of the module in a lock-step fashion, so that all test takers have the same amount of time on each part. This lock-step administration of a module ensures that all assessment measures on each part can be validly compared.

"A big benefit of reporting measures by module as well as by parts of a module is that a rich profile can be obtained of a test taker's performance, giving a clearer **view** of his or her strengths and weaknesses in terms of the reasoning skills assessed," said Mr Morgan.

The test can be administered to secondary school students and adults, and places minimal demands on formal school learning - rather, it emphasises general cognitive abilities.

"The challenge for this project was in conceptualising a new series of tests and in deciding on the materials to include - and we have developed an excellent test for assessing a core set of skills. We may include more modules to test other skills later on."

Celebrating Language Learning

Language certificates provide important external recognition of students' reading and listening skills in languages other than English.

"The *National Australia Bank Language Certificates* are important for two reasons - firstly because they provide students with recognition of learning by an organisation outside the school, and secondly because they provide teachers with good quality materials which can be re-used," said Project Director, Dr Susan Zammit.

The Certificate program aims to encourage and motivate students in their study of languages other than English and is an initiative of the Australian Multicultural Foundation.

Balancing act

In 1998, 61 500 students from 1095 Australian and New Zealand schools registered to sit the assessment tasks for the Certificate programs in Chinese, French, German, Indonesian, Italian, and Japanese.

"The biggest challenge is finding a balance between providing a measure of success for all students in the program and providing a challenge for the more able students," said Dr Zammit.

"Because language learning takes place so differently across schools and States, trying to find a common core is difficult. There is no set curriculum. We survey teachers about the textbooks they use and ask for their feedback on the tasks produced annually for the program."

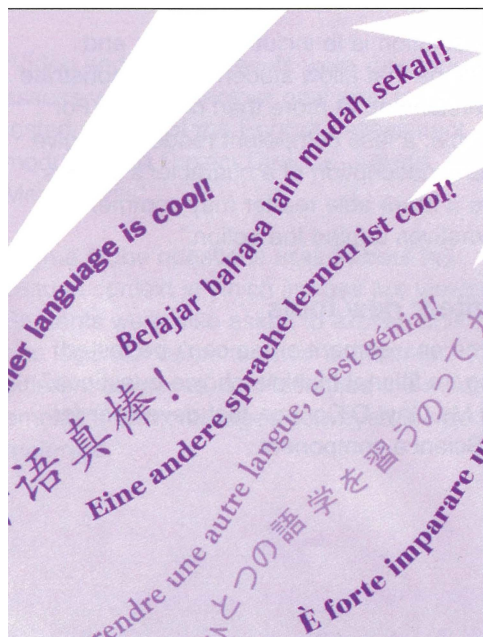
The program operates at three levels:

- First Certificate in Japanese for students in Years 6 and 7 with at least 50 hours' instruction. Students undertake a 20-25 minute task based on spoken materials heard on audiotape.
- Beginners' level in Chinese, French, German, Italian, Indonesian, and Japanese for students with 80-200 hours' instruction. Both spoken and written materials are used in the tasks which take 55-60 minutes.



- Intermediate level in French, German, Italian and Japanese for students with 200-300 hours' instruction. Again, both written and spoken materials are used.

"It is particularly important to ensure the tasks are appropriate to students' experience with the language."



Consultative process

"The people writing the materials are actively involved in language teaching, so they know the ways in which students learn new languages," said Dr Zammit.

"We view the program as a cooperative exercise where we provide assessment expertise and work together with language experts and teachers in order to provide materials which are interesting, up-to-date, and useful to both teacher and student."

"The assessment materials developed are retained in schools where they become an additional resource for teachers."

Dr Zammit's team has administered the program since 1991, and liaises with language coordinators and staff of the Language Testing and Research Centre at Melbourne University and language teachers around the country to develop the tasks.

Monitoring Standards in Education

- 1 State monitoring programs are
- 2 pushing boundaries in the
- 3 assessment of student achievement.

The *Monitoring Standards in Education* (MSE) program began in Western Australia in 1990, and has required some lateral thinking on the part of ACER project teams to come up with ways of assessing students' skills in some unusual areas.

MSE assessment tasks have been developed in areas such as Languages Other Than English, Mathematics, Science, English, Health and Physical Education, and Studies of Society and the Environment.

"MSE assesses a random sample of the student population, which means we're able to employ open-ended questions and other innovative assessment techniques because the tasks can be hand-marked," said Ms Lynne Darkin, Project Director for the English (Reading and Writing) and Health & Physical Education programs.

"We work closely with the Education Department of Western Australia to develop tasks measuring student achievement in Years 3, 7 and 10 against the Western Australia Student Outcome Statements!"

Measuring growth

"To measure growth in achievement on a single scale from Year 3 to Year 10 we have to write some units which can be attempted by students at more than one year level. The difficulty is to make them simple enough for Year 3 students, for example, but still challenging for Year 7 students," said Ms Darkin.

"The solution is to include stimulus and questions that allow students to demonstrate understanding at more than one level. For example, a less competent reader may give a literal description of a character's actions, while a more able reader may comment on the motives behind the action."

Wanted: new tools

"Some assessment areas can't be tested using traditional multiple-choice questions," said Ms Gayl O'Connor, test developer for the Science component.



"The Science module incorporated the strand 'working scientifically' - looking at the practical methods students use to solve science problems. To do this we needed to include some short practical manipulation tasks which were completed by students in groups. This gave the opportunity to assess the cooperative and communicative skills of students, as well as their solutions to the tasks," said Ms O'Connor.

"Video and print materials were developed to assess viewing, another new area to be tested as part of the English assessment module," said Project Director, Juliette Mendelovits.

"Some of the questions asked about the cultural context in which images are viewed. Students were also asked to explain how one logo can be better than another for different purposes, and identified the moods, emotions and messages conveyed in visual materials."

"Health and Physical Education was just one of many areas where we needed to train markers specifically on how to mark the tasks. For example, markers were sent out to schools to assess the strategies, skills and interpersonal communication of children playing sport," said Ms Darkin.

"Assessing decision making, another of the strands in the Health and Physical Education area, was challenging because it refers to real people making real decisions. In a pen and paper test we can assess only what students know about decision making, not what they actually do or how they make real decisions," said Ms Darkin.

"We developed a model that asked students to evaluate the decisions made by other people in given scenarios and assessed such things as recognising choice, awareness of consequences, and taking responsibility," said Ms Darkin.

Education Index Online

Locating up-to-date materials on Australian education has never been simpler.

The changeover from electronic databases to CD-ROM was a technological milestone, but in the age of the internet, online searching is proving to be the next big challenge.

"It was a natural progression for us to make the *Australian Education Index* (AEI) accessible on the world wide web for subscribers to RMIT's Informit-Online," said Ms Margaret Findlay, Manager of the Cunningham Library.

"The AEI was recently completely updated for CD-ROM purposes from our enormous resources from the Cunningham Library and now contains more than 90 000 entries. Both the CD-ROM and internet versions contain full bibliographic information and abstracts on Australian education from 1978 to the present, so you can imagine it was a huge task."

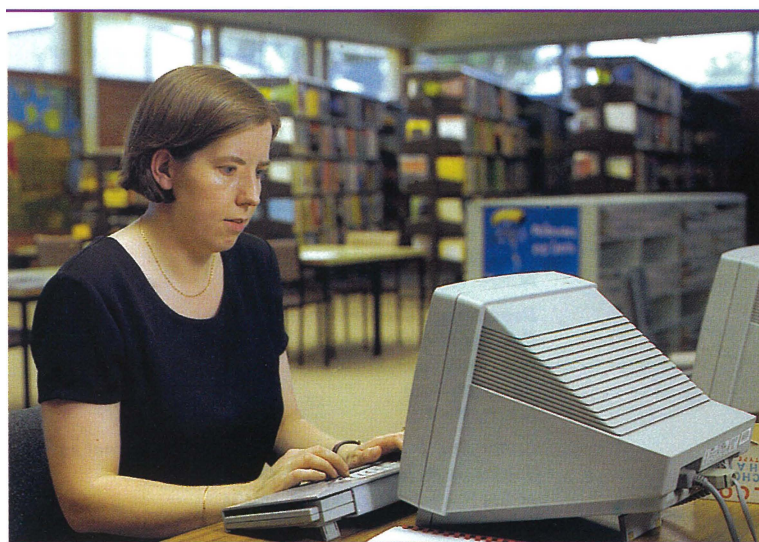
With the move to online searching, the Library team now index new entries on a monthly basis, keeping the AEI as up-to-date as possible. Previously, new entries were updated quarterly for the CD-ROM.

The online index developed by RMIT Publishing is quite different from the CD-ROM version and has a few extra features to help searchers navigate their way through the information available.

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How big is it really?

More than 4500 new items are added to the AEI every year, requiring a dedicated team with an expert understanding of search engines and procedures.

The team indexes more than 100 Australian journals and scans more than 500 Australian and international journals for relevant articles about Australian education. Articles from electronic journals and links to web sites are also indexed. Books, conference proceedings and papers, research and technical reports, theses, and legislation are indexed in detail as well.

"It is the most comprehensive index to Australian education available and the team works very hard to maintain it," said Ms Findlay.

Up-to-date and online

The Cunningham Library has been indexing entries for the AEI since 1957, and the first electronic version appeared in 1979. In the early 1990s it was put onto CD-ROM by The Dialog Corporation and made available in several different CD-ROM databases including the International ERIC CD-ROM, and RMIT Publishing's AUSTROM CD-ROM, to facilitate access for a wider range of people.

Indexed entries on issues pertaining to Aboriginal and Torres Strait Islanders from the AEI are also included as a subset on ATSI ROM, through RMIT Publishing.

"Of course, for those who still prefer the smell of ink and paper, the AEI is also available annually in print," said Ms Findlay.

Most items indexed for the AEI (except for theses) are held by the Cunningham Library and are available for loan or photocopy through the interlibrary loan system.

Further information

Further information about ACER's activities can be found on the ACER web site (<http://www.acer.edu.au>), and in the following publications:

Access and Equity in Vocational Education and Training: Results from longitudinal surveys of Australian youth

ACER Research Monograph No. 55
Stephen Lamb, Michael Long, Jeff Malley
ACER, 1998

Describing Learning: Implementation of Curriculum Profiles in Australian Schools 1986-1996

ACER Research Monograph No. 50
Jan Lokan (ed)
ACER, 1997

Enhancing English Literacy Skills in Aboriginal and Torres Strait Islander Students

ACER Research Monograph No. 54
Margaret Batten, Tracey Frigo, Paul Hughes, Natascha McNamara
ACER, 1998

Learning From Children

ACER Research Monograph No. 52
Brian Doig, Jan Lokan
ACER, 1997

Literacy and the Competencies -Teachers' Perspectives

ACER Research Monograph No. 51
Suzanne Mellor, Graeme Withers, Margaret Batten, Jan Lokan, Joy McQueen, Imelda earthy
ACER, 1996

Literacy Standards in Australia

Geoff Masters and Margaret Forster
DEETYA, 1997

Longitudinal Surveys of Australian Youth: Research Reports

Completing School in Australia: Trends in the 1990s.
LSAY Research Report No. 1
Stephen Lamb
September 1996

School Students and Part-Time Work. LSAY Research Report No. 2
Lyn Robinson
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Reading Comprehension and Numeracy among Junior Secondary School Students in Australia. LSAY Research Report No. 3
Gary Marks & John Ainley
March 1997

School Achievement and Initial Education and Labour Market Outcomes. LSAY Research Report No. 4
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July 1997

Attitudes to School Life: Their influences and their effects on achievement and leaving school. LSAY Research Report No. 5
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Factors Influencing Youth Unemployment in Australia: 1980-1994. LSAY Research Report No. 7
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Curriculum and Careers: The Education and Labour Market Consequences of Subject Choice. LSAY Research Report No 10
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The Early Work and Education Experiences of High School Dropouts: A Comparative Study of the United States and Australia. LSAY Research Report No 11
Stephen Lamb & Russell Rumberger
October 1998

Mapping Literacy Achievement: Results of the 1996 National School English Literacy Survey

Geoff Masters and Margaret Forster
DEETYA, 1997

Maths and Science on the Line

Australian Junior Secondary Students' Performance in the Third International Mathematics and Science Study, TIMSS Australia Monograph No. 1
Jan Lokan, Phoebe Ford, Lisa Greenwood
ACER, November 1996

Maths and Science on the Line

Australian Middle Primary Students' Performance in the Third International Mathematics and Science Study, TIMSS Australia Monograph No. 2
Jan Lokan, Phoebe Ford, Lisa Greenwood
ACER, June 1997

Maths and Science on the Line

Australian Year 12 Students' Performance in the Third International Mathematics and Science Study, TIMSS Australia Monograph No. 3
Jan Lokan, Lisa Greenwood
ACER, expected 1999

The School to Work Transition of Indigenous Australians: A Review of the Literature and Statistical Analysis

Mike Long, Tracey Frigo, Margaret Batten
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Schools and the Social Development of Young Australians

John Ainley, Margaret Batten, Cherry Collins, Graeme Withers
ACER, 1998

'What's the Point?': Political attitudes of Victorian Year 11 students

ACER Research Monograph No. 53
Suzanne Mellor
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- Masters, G.N. (1998). *Constructing Described Scales of Performance.* Presentation to conference organised by the Association of Independent Schools (NSW) on the HSC White Paper, Sydney.
- Masters, G.N. (1997, September). *The National School English Literacy Survey.* Address to the Australian College of Education Conference, Cairns.
- Masters, G.N. (1997, November). *Closing the Literacy Gap.* Forum presentation at Melbourne Business School, sponsored by Centre for Applied Educational Research in association with the National Industry Education Forum.
- Masters, G.N. (1997, November). *Is There a Literacy Problem?* Presentation at Australian Education Union Forum - Literacy and Testing: Politics of Education?
- Masters, G.N. (1997, November). *Aspects of the National School English Literacy Survey.* Presentation sponsored by Australian College of Education, Maroondah Branch.
- Masters, G.N. (1997, December). *Equating State and Territory Assessments.* Presentation at Second National Assessment and Reporting Round Table, sponsored by the Department of Education, Victoria.
- Masters, G.N. (1997, December). *Adding Value to Assessment: Using Quality Statewide Assessment Data to Improve Student Learning: Current Developments and Directions.* Forum presentation at Melbourne Business School, sponsored by Victorian Board of Studies in association with the Office of Review, Department of Education.

- Masters, G.N. (1998, February). *Conceptualising Standards in Education*. Presentation to the conference on Professional Standards and the Status of Teaching, Fremantle.
- Masters, G.N. & Forster, M (1998, March). Implementing Developmental Assessment Workshops. Sponsored by the Macquarie Support Service Personal Development Association Inc., Launceston.
- Masters, G.N. & Forster, M (1998, March). Implementing Developmental Assessment Workshops. Sponsored by the Department of Education, Community & Cultural Development, Hobart.
- Masters, G.N. & Forster, M (1998, March). Implementing Developmental Assessment Workshops. Sponsored by the Curriculum Council, Perth.
- Masters, G.N. & Forster, M (1998, March). Implementing Developmental Assessment Workshop. Sponsored by the NSW Board of Studies, Sydney.
- Masters, G.N. (1998, March). *Student Achievement: Measuring Up? How can schools best monitor and report student achievement to the public?* Public presentation to teachers, educationalists and parents, sponsored by NSW Institute for Educational Research in association with DEETYA, the Australian Council for Educational Research, and St George Campus, The University of New South Wales.
- Masters, G.N. (1998, March). *Student Achievement: Measuring Up?* Public presentation to teachers, educationalists and parents, at Edith Cowan University, sponsored by Western Australian Institute for Educational Research, in conjunction with the Department of Education, Employment and Training.
- Masters, G.N. & Forster, M (1998, April). Implementing Developmental Assessment Workshops. Sponsored by the ACT Department of Education and Training, Canberra.
- Masters, G.N. (1998, May). *Establishing Benchmarks*. Presentation at The National Literacy and Numeracy Strategies: Implications for Educators Conference, sponsored by the Australian College of Education, Canberra.
- Masters, G.N. (1998, May). *Standards and Assessment for Students and Teachers: A Developmental Paradigm*. Incorporated Association of Registered Teachers of Victoria Seminar Series No. 74.
- Masters, G.N. & Forster, M (1998, May). Implementing Developmental Assessment Workshops. Sponsored by the Department of Education Victoria, Melbourne.
- Masters, G.N. & Forster, M (1998, May). Implementing Developmental Assessment Workshops. Sponsored by the Department of Education Queensland, Brisbane.
- Masters, G.N. & Forster, M (1998, May). Implementing Developmental Assessment Workshops. Sponsored by the Department of Education Queensland, Townsville.
- Masters, G.N. & Forster, M (1998, June). Implementing Developmental Assessment Workshops. Sponsored by the Department of Education, Training and Employment, Adelaide.
- Meiers, M (1997, July). *Writers at Year 12* Joint National Conference of the Australian Association for the Teaching of English and the Australian Literacy Educators' Association, Canberra School of Music, Canberra.
- Meiers, M (1997, July). *National Perspectives: Literacy in the Spotlight*. Victorian Association for the Teaching of English, University of Melbourne.
- Meiers, M (1997, August). *Texts from Asia in English Classrooms: Writing Student Activities for a Series of Anthologies of Asian Texts*. National Council of Teachers of English, Third International Conference: Global Conversations on Language and Literacy. Bordeaux University, France.
- Meiers, M (1997, August). *Recent Australian Initiatives Relating to Literacy Standards* and Panel Session. National Council of Teachers of English, Third International Conference: Global Conversations on Language and Literacy. Bordeaux University, France.
- Mellor, S (1997, July). *What student political attitudes tell us about how to best teach 'responsible citizenship'*. Presentation at the Connections 97 Conference: Education for Responsible Citizenship organised by the National Council for Social Studies and Social and Environmental Association of Australia.
- Mellor, S (1997, September). *Impact of Schools on Students' Civics and Citizenship Attitudes*. Presentation at British Educational Research Association Conference, York, England.
- Mellor, S (1997, November). *Civic Understanding and Political Attitudes*. Paper presented at AARE Conference, Brisbane.
- Splitter, L.J. (1997, July). *Values and philosophy: some political dimensions*. Paper presented at the Federation of Australasian Philosophy for Children Associations Annual Conference, University of Sydney.
- Splitter, L.J. (1997, July). *The Classroom as a community of inquiry*. Workshop presented at the Australian Curriculum Studies Association Biennial Conference, University of Sydney.

- Splitter, L.J. (1997, July). *Democracy, philosophy and inquiry: Getting to the heart of the matter*. Paper presented at the Australian Curriculum Studies Association Biennial Conference, University of Sydney.
- Splitter, L.J. (1997, August). *Teaching for higher-order thinking*. Workshop presented to the SOSE (Studies in Society and the Environment) network, Wodonga, Victoria.
- Splitter, L.J. (1997, September). Guest lecturer on *Philosophy for Children*, La Trobe University.
- Splitter, L.J. (1997, September). *Citizens as persons: The place of philosophy in civics and citizenship education*. Paper presented at the 4th National Conference of the Australian Association for Professional and Applied Ethics, University of Melbourne.
- Splitter, L.J. (1997, October). *Teaching for Better Thinking*. Workshops, ACER, Melbourne.
- Splitter, L.J. (1997, October). *Teaching for Higher-order Thinking, and Stimulating Children's Thinking*. Workshops given at Professional Development 'Smorgasboard', PLC, Melbourne.
- Splitter, L.J. (1997, November). Keynote address to launch the Tasmanian Association of Philosophy for Children, Hobart.
- Splitter, L.J. (1998, January). Codirection of Workshop on *Philosophy for Children*, with Latin American Centre of Philosophy for Children, San Cristobel de las Casas, Mexico.
- Splitter, L.J. (1998, February). *Lectures and demonstrations to teacher education students at Deakin University* (three primary schools in Melbourne).
- Splitter, L.J. (1998, March). *Classes in philosophy for year 12 students of the International Baccalaureate program*. Wesley College, Melbourne.
- Splitter, L.J. (1998, March). *Thinking about issues in ethics and health*. Workshop presented for the Victorian Home Economics and Textiles Teachers Association Annual Conference Melbourne.
- Splitter, L.J. (1998, April). Chair of syndicate on *Philosophy education and logical thinking: teaching for better thinking across the curriculum*, at UNESCO Conference entitled *Education for the 21st Century in the Asia Pacific Region*, Melbourne.
- Splitter, L.J. (1998, April). Workshop for teachers, Hallett Cove School, Adelaide.
- Splitter, L.J. (1998, May). *How philosophy can contribute to moral education in schools*. Paper presented at the Asia-Pacific Philosophy Education Network for Democracy (APPEND) Conference, organised by UNESCO Bangkok.
- Splitter, L.J. (1998, May). Workshop on philosophy for children, for teachers and professors, Varna, Bulgaria.
- Splitter, L.J. (1998, June). *Do we have the time and/or the energy for this?* Paper presented at the Federation of Australasian Philosophy for Children Associations Annual Conference, University of Tasmania, Launceston.
- Splitter, L.J. (1998, June). Workshop for teachers, University of Tasmania, Launceston.
- Vickers, M. & Collins, C. (1998, April). *Curriculum Matters: Why some Australian States are better than others at drop-out prevention*. Paper presented at the American Association for Educational Research, San Diego.
- Zammit, S.A. (1997, October). *English and Home Background Languages in Australian Primary Schools*. Paper presented at the 22nd Annual Applied Linguistics Association of Australia Congress, Toowoomba.
- Zammit, S.A. (1997, October). *The Challenge to Learn a Language Other than English at Secondary School Level*. Paper presented at the 22nd Annual Applied Linguistics Association of Australia Congress, Toowoomba.
- Zammit, S.A. (1998, June). *What's Fair in Classroom Tests?* Plenary presented at New Zealand Association of Language Teachers, Biennial Conference, Dunedin.
- Zammit, S.A. (1998, June). *Facts, Figures, Questions?* Paper presented at New Zealand Association of Language Teachers, Biennial Conference, Dunedin.

Unpublished papers and reports of limited circulation

- Barnard, J.J. (1997). *The South Australian Students with High Intellectual Potential (SHIP) Secondary Assessment Program*. Melbourne: ACER.
- Barnard, J.J. (1998). *The South Australian Students with High Intellectual Potential (SHIP) Secondary Assessment Program*. Melbourne: ACER.
- Barnard, J.J., & Robbins, F. (1997). *System Report on the Literacy Assessment for the Catholic Education Office, Sydney*. Melbourne: ACER.
- Barnard, J.J., Chamberlain, J.C., Robbins, F. & Dick, W. (1997). *Report on the Australian Capital Territory Literacy Assessment Program*. Melbourne: ACER.
- Barnard, J.J., Chamberlain, J.C., Robbins, F. & Dick, W. (1998). *The Australian Capital Territory Assessment Program*. Melbourne: ACER.

- Burke, G., Costello R., Malley J. & Shah C. (1998). *Assessing demand for VET in Victoria: a framework*, Report to the Office of Training and Further Education, Department of Education, Victoria.
- Forster, M. (1998). *Examining the Literacy Benchmarks: An Analysis of the Relationship between the November Drafts of the Literacy Benchmarks and Data Obtained from the 1996 National School English Literacy Survey* Paper commissioned by Curriculum Corporation to assist in the development of the literacy benchmarks. Melbourne: ACER.
- Frigo, T. & Lokan, J. (1998). *Implementing the Systemic Collection of Profiles Data in South Australian Government Schools*. Melbourne: ACER.
- Hambur, S. (1998). *Generic Factors and Curriculum: A Review of Construct Validity and Factorial Balance in Cross-curricular Tests*. Melbourne: ACER.
- Hambur, S. (1998). *Report on AST-F (1997)*. Melbourne: ACER.
- Harvey-Beavis, A. (1997). *Report on Two Focus Groups Discussing Post-graduate Students' Course Experience*. An unpublished report prepared for the Graduate Careers Council of Australia.
- Harvey-Beavis, A., Mellor, S. & MacKinnon, V., (1998). *Local Evaluation of the Design and Tracking phase of the Peter MacCallum Cancer Institute Coordinated Care Trial*. Report prepared for the Peter MacCallum Cancer Institute.
- Johnson, T. (1997). *Evaluation of Course Experience of Graduates from Targeted Equity Groups*. DEETYA: AGPS.
- Johnson, T., Ainley, J. & Batten, M. (1997). *National School English Literacy Survey 1996: Preliminary analyses and areas for investigation*. Report to the Management Committee, DEETYA.
- Lindsey, J. & Barnard, J.J. (1997). *Selective High Schools Test for the New South Wales Department of School Education*. Melbourne: **ACER**.
- Lokan, J., Adams, R., Greenwood, L., Lindsey, J. & Masters, G.N. (1997). *Investigating the Relationship between the Draft Year 3 and Year 5 Numeracy Benchmarks and the Third International Mathematics and Science Study* Final Report. Commissioned by the Commonwealth Department of Employment, Education, Training and Youth Affairs.
- Lokan, J., Doig, B. & Lindsey, J. (1998). *Examining the Numeracy Benchmarks*. Report submitted to Curriculum Corporation in fulfilment of contract.
- Lokan, J., O'Connor, G., Doig, B., Lindsey, J. & Masters, G.N. (1998). *Australian Draft Numeracy Benchmarks for Years 3 and 5 in Comparison with Statements of Standards or Performance Expectations in Primary School Mathematics from Other Countries*. Final Report. Commissioned by the Commonwealth Department of Employment, Education, Training and Youth Affairs.
- Long, M. & Burke, G. (1998). *An Analysis of the 1997 Training Practices Survey*. A Report prepared for the Australian National Training Authority by the Monash University - ACER Centre for the Economics of Education and Training.
- Long, M. (1997). *Implications for Training of the Australian Workplace Industrial Relations Survey*. A draft report prepared for the Australian National Training Authority by the Monash University - ACER Centre for the Economics of Education and Training.
- Long, M. (1997). *The 1997 VET Graduate Destination Survey* National Report to the National Centre for Vocational Education and Research.
- Long, M. (1997). *The Australian Workplace Industrial Relations Survey: Training and Workplace Outcomes*. A report prepared for the Australian National Training Authority by the Monash University - ACER Centre for the Economics of Education and Training.
- Masters, G.N. (1998). The National Literacy Survey: A rich picture of learning. *Everychild*, 4(1), pp. 23. The Magazine of the Australian Early Childhood Association.
- Masters, G.N. (1998). Is there a literacy problem? In Allison, L. (ed.), *Literacy: Not a Black and White Issue*, pp. 3-4. Initiative of the Australian Democrats.
- Meiers, M. & Barry, W. (1998). *Boys Reading: A School Case Study*. Report of the Reading Research Project, Scotch College, Melbourne.
- Meiers, M. (1998). *Benchmarking VCE English Language*. Report to the VCE English Language Accreditation Panel, Board of Studies.
- Mendelovits, J. & Hambur, S. (1998). *Report on Victorian General Ability Test (1997)*. Melbourne: ACER.
- Morgan, G. & Congdon, P. (1997) *Report on the Graduate Australian Medical School Admissions Test 1997*, Melbourne: ACER.
- Rumberger, R. & Lamb, S. (1998). *The Early Employment and Further Education Experiences of High School Dropouts: a comparative study of the United States and Australia*. Report for the OECD.

Zammit, S.A., McQueen, J. & Firth, P. (1997). *Report on the National Australia Bank Language Certificates* to the Australian Multicultural Foundation. Melbourne: ACER.

Tests and manuals

Lindsey, J. & Barnard, J.J. (1997). *Progressive Achievement Tests in Mathematics (Revised)*. Melbourne: ACER.

Recht, E., Forster, M. & Masters, G.N. (1998). *DART Mathematics (Upper Primary) Developmental Assessment Resource for Teachers*. Melbourne: ACER.

Book reviews

Meiers, M. (1998). Off the bookshelf. Review section of *Literacy Learning: Secondary Thoughts*, 6(2). A journal of the Australian Literacy Educators' Association.

Software

Volodin, N. (1998). *General Slopes: The Interactive Test Analysis System. Version 2.0*.

Staff professional activities outside ACER

Ainley, J. Assessor, *Australian Research Council* (ARC)

Ainley, J. Consultant to the OECD planning meeting for the *Thematic Review of Transition from School to Work*, Paris, September 1996

Ainley, J. *Ministerial Review of Employment Equity for Women in Education*, 1994-1996

Ainley, J. President, *Blackburn High School Council* 1992-present

Aldous, C.J.H. Member of the NEAS (National ELICOS Accreditation Scheme) Assessment Panel (1996 -)

Collins, C. Chair *AARE Thesis Prize Committee*

Collins, C. Member of Editorial Board of *Unicorn Journal of the Australian College of Education*

de Lemos, M. Member of Advisory Group *Life Chances Research Study*, Brotherhood of St Laurence, Victoria, 1996 - ongoing.

Lokan, J. Assessor, *Australian Research Council* (ARC)

Lokan, J. Member of Editorial Advisory Board, *Career Development International*, 1989-1997

Lokan, J. Member of Executive Editorial Board, *Australian Journal of Career Development*, (1992 -)

Lokan, J. Member of Executive, *Division of Psychological Assessment, International Association of Applied Psychology*, (1990 -)

Lokan, J. Member, *Reference Group for the Victorian Pilot Project on the First Three Years of Schooling Evaluation* (Vic Directorate of School Education), (1994 -)

Lokan, J. Reviewer of papers submitted to *Division E of the American Educational Research Association*, (1994 -)

Long, M. Member of Reference Group of the *National Survey of Course Experience* - a committee to advise the Minister for DEETYA on the implementation of a national survey on the course experience of higher education students.

Long, M. Member of the *Research and Graduate Studies Committee*, Faculty of Education, University of Melbourne.

Malley, J. Board member, *Mindshop Excellence Foundation*

Malley, J. Deputy Chair, *Moorabbin, Oakleigh, Springvale Employment Development Group* (MOSEDG)

Masters, G.N. Chair, *Rasch Measurement Special Interest Group*, American Educational Research Association (1996 -)

Masters, G.N. Member, Editorial Advisory Board, *Journal of Outcome Measurement* (1996 -)

Masters, G.N. Member, Editorial Board, *International Journal of Educational Research* (1996 -)

Masters, G.N. Member, Editorial Review Committee, *Journal of Educational Assessment* (Journal of the Association for the Study of Evaluation in Education in Southern Africa), (1994 -)

Meiers, M. Chairperson, *VCE English Language Accreditation Panel*, Board of Studies, Victoria

Meiers, M. Editor, *Literacy Learning: Secondary Thoughts* (Journal of the Australian Literacy Educators' Association), (1996 -)

Meiers, M. Lecturer, *Secondary English Method, BEd program*, RMIT University, Bundoora

Meiers, M. State Reviewer, *VCE English*, Board of Studies, Victoria (1992 -)

Splitter, L.J. Education Committee of the *King David School*

Splitter, L.J. Membership of Selection Committee, *Association of Rhodes Scholars in Australia Scholarship*

Splitter, L.J. Treasurer, *International Council for Philosophical Inquiry with Children*

Financial Report

For the financial year ended 30 June 1998 the operating surplus was \$671 774. The surplus is after providing for building depreciation of \$106 652. The results for 1997-98 and 1996-97 are set out in Table 1. The 1997-98 operating surplus, after building depreciation, of \$671 774 represents a 4.4 per cent return on total income and a 5.0 per cent return if the core grant is excluded on the grounds that it is fully expended each year.

Total income for the year of \$15.1 m, was \$1.2m or 8.9 per cent higher than in 1996-97. However, the surplus was \$411 057 higher than that achieved in 1996-97. ACER is a not-for-profit company, but achieving an annual operating surplus is important for the financial stability of the organisation. Surplus funds are needed for debt reduction and to allow investment in future business opportunities. Cash reserves are required to meet the cash flow demands of growth and to cover expenditure on contract work in

advance of receipts. The accumulation of cash reserves also permits the organisation to fund some research and development and other activities of its own choosing in fulfilment of its objectives.

In 1995-96 the directors established a Strategic Initiatives Reserve and in 1997-98 an amount of \$333 000 was transferred to the reserve, providing an accumulated balance of \$429 554. The purpose of the reserve is to apply some of the previous years' surplus to new strategic initiatives. Some examples are the funding of international development activities, a post graduate scholarship and computer based testing.

During 1997-98 ACER obtained exemption from payroll tax, financial institutions duty and government debits tax. Refunds were obtained to the value of \$1 029 746. The refunds have been placed into a reserve account for strategic purposes.

Table 1: Profit and loss summaries for years ending 30 June 1998 and 30 June 1997

Source	1997-98	1996-97
Income		
Core research and development program	1 696 500	1 644 500
Professional services	7 628 931	7 184 283
ACER Press	5 696 880	4 873 708
Rent and sale of equipment	117 995	190 363
Interest	23 245	25 348
Total	15 163 551	13 918 202
Expenditure		
Core research and development program	1 696 500	1 644 500
Professional services	7 326 528	7 169 560
ACER Press	5 362 097	4 738 182
Total	14 385 125	13 552 242
Operating surplus	778 426	365 960
Building depreciation	106 652	105 242
Surplus from operations before reserves	671 774	260 718

Core grant

ACER receives an annual core grant from Australian government education departments, half from the Commonwealth and the half from the States and Territories in proportion to their populations. This grant enables ACER to undertake a research and development program for which contract funds are not normally available. The grant currently funds basic research in areas such as developmental assessment, psychometric and statistical research, education, training and work and longitudinal surveys.

The core grant is linked by formula to academic and Australian Public Service salary scales and rose by 3.2 per cent in 1997-98 to \$1 696 500. The core grant provided 11.2 per cent of ACER's total income in 1997-98 compared with 11.8 per cent in 1996-97.

Professional services

The activities included under professional services in Table 1 are contract research and development work and services funded by fees. Fee-for-service activities include testing programs, conferences and workshops.

The level of activity in professional services increased by \$444 648 or 6.2 per cent to \$7.6m compared to \$7.2m in 1996-97. Professional services expenditure in 1997-98 was \$7.3m.

The long-term trend in the level of ACER's professional service activities is shown in Figure 1. The level of activity reached in 1997-98 was the highest level achieved since ACER's establishment in 1930 and maintains the high level of activity over the last four years.

ACER Press

ACER Press is involved in the publication and sale of educational and psychological books, tests and other materials. Around 40 per cent of total sales income is derived from materials that ACER publishes and around 60 per cent from materials that ACER distributes on behalf of other publishers.

In 1997-98 total income for ACER Press grew by \$823 172 to \$5.7m, an increase of 17 per cent. This growth is in addition to a 5.4 per cent increase in 1996-97 and a 10.3 per cent increase in 1994-95. ACER Press yielded a net surplus of \$334 782 in 1997-98, which was \$199 256 higher than that achieved in 1996-97.

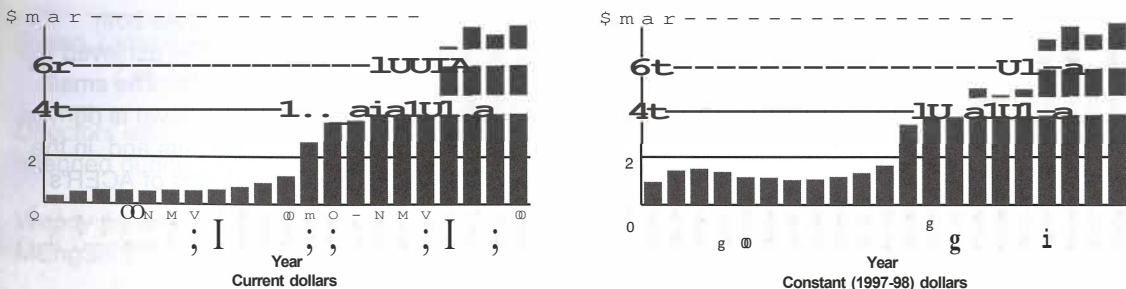


Figure 1: Trend in income for professional services from 1977-78 to 1997-98

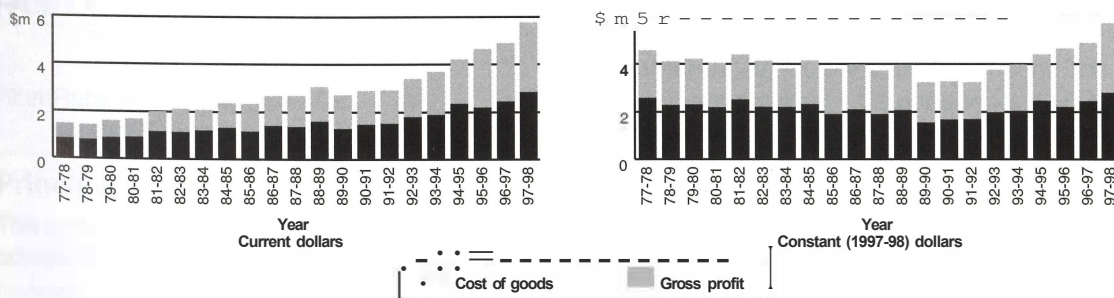


Figure 2: Trend in ACER Press income from 1977-78 to 1997-98

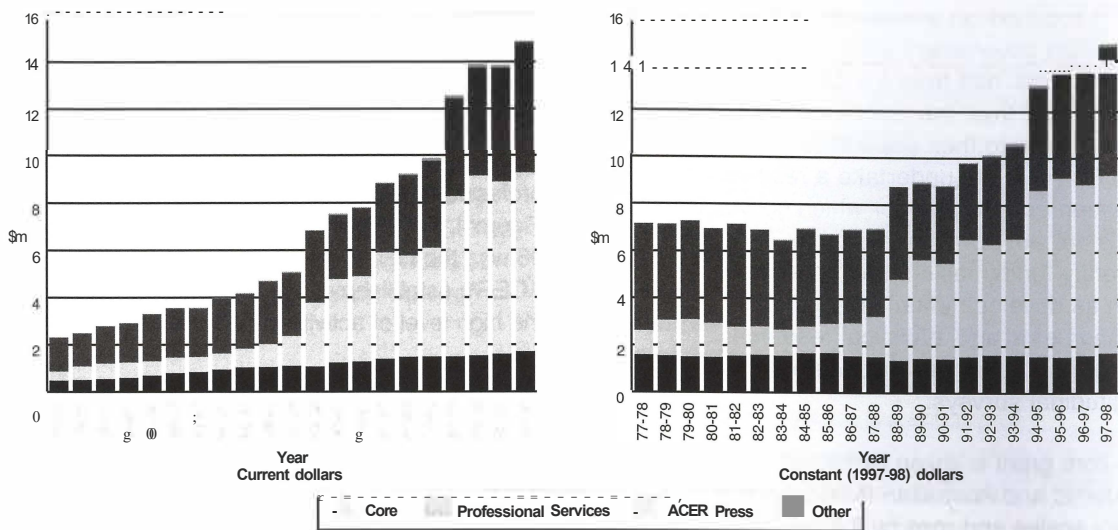


Figure 3: Trend in total income from 1977-78 to 1997-98

The long-term trend in the level of ACER Press income is shown in Figure 2. Total income is represented by the full height of each column, and gross profit, after removal of the cost of goods sold, by the unshaded portion. The general trend between 1977-78 and 1988-89 was downward, with some year-to-year variations. Since 1989-90, ACER Press income has been growing dramatically due to changes in the focus, operation and management of the business. The level of income achieved in 1997-98 was the best ever achieved in real terms.

Long-term trends in total income

The long-term trend in ACER's total income is shown in Figure 3. As the right hand panel shows, total income in real terms had generally fallen away in the late 1970's and early 1980's reaching a low point in 1983-84. The growth from the mid-1980s to the present has been remarkable. As both graphs in Figure 3 show, ACER achieved the highest income ever in 1997-98. The small component of other income shown is derived from interest earned on deposits and, in the last five years, from rent of part of ACER's premises.

Directors' Report

The Directors of the Australian Council for Educational Research Limited (ACER) submit the following report together with the financial statements for the year ended 30 June 1998.

Directors in office at the date of this report and meetings attended during year

Ken Boston MA PhD FRGS FACE FAIM
7 of 7 meetings attended

Brian Devlin BA(Hons) DipEd MEd EdD
FACE JP
7 of 7 meetings attended

Peter H Karmel AC CBE BA PhD FACE
FASSA
7 of 7 meetings attended

Jillian M Maling AM BA DipEd BEd PhD
FACE
7 of 7 meetings attended

Glenn Rowley BSc BEd MA PhD
2 of 2 meetings attended

Susan Zammit BA(Hons) MEdSt PhD MACE
7 of 7 meetings attended

Directors who have held office and meetings attended during the financial year

Wendy Jarvie BA(Hons) DipCompSci
MEngSci PhD
0 of 2 meetings attended

Barry McGaw BSc BEd(Hons) MEd PhD
FACE FAPsS FASSA
7 of 7 meetings attended

Alan Ruby BA DipEd AIE FACE
1 of 1 meeting attended

Principal activities of the company

The principal activities of the company in the course of the financial year were educational research and development and the publication and sale of educational and psychological tests and other materials. During the year there was no significant change in the nature of those activities.

Result for the year

The operating surplus for the year, before expenditure from reserves, was \$671 774. There was one extraordinary item in 1997-98. During the year the company obtained exemption from payroll tax, financial institutions duty and government debits tax and was successful in claiming a refund to the net value of \$1 029 746. The refund has been set aside as a reserve for strategic purposes. After income from the extraordinary item and expenditure from reserves, the surplus was \$1 644 717.

Dividends

ACER is a not for profit company and neither declares nor pays dividends.

Review of operations

ACER's total operating revenue increased from \$13 918 202 in 1996-97 to \$15 163 551 in 1997-98.

The Commonwealth, State and Territory governments provide ACER with an annual grant that enables ACER to undertake a range of research and development projects for which contract funds are not normally available. Some of the projects anticipate developments for which further work can be undertaken later on contract. Others are concerned with more basic and long-term questions than the more immediate ones for which contract funding is typically available. Both types of projects strengthen the intellectual base on which all of ACER's work is built. The 1997-98 government grant was \$1 696 500 compared with \$1 644 500 in 1996-97, an increase of 3.2 per cent. The core grant provided 11.1 per cent of ACER's total operating revenue in 1997-98 compared with 11.8 per cent in 1996-97.

Operating revenue from professional services in 1997-98 was \$9 520 117, an increase of 5.6 per cent from the \$9 018 259 achieved in 1996-97. These professional services yielded a surplus in 1997-98 of \$465 068, which represents a return on operating revenue of 5.0 per cent.

ACER Press revenue, including royalties, in 1997-98 was \$5 696 880, up 16.9 per cent on the \$4 873 708 achieved in 1996-97. ACER Press reported a surplus of \$334 782 in 1997-98, well up on the 1996-97 surplus of \$135 526. The 1997-98 net surplus represents a return of 11.0 per cent on assets employed, being inventory and debtors. This is considerably higher than the yield of 5.5 per cent achieved in 1996-97.

Changes in state of affairs and likely developments

During the financial year there were no significant changes in the state of affairs of the company other than those referred to in the accounts or notes thereto.

Events subsequent to balance date

There have been no significant changes in the state of affairs of the company since the end of the financial year.

Directors' interest in contracts

Since the end of the previous financial year, no Director has received or become entitled to receive a benefit, other than the fixed salary and benefits of the two employees of the company as disclosed in the accounts, by reason of a contract made by the company with the director or with a firm of which he or she is a member, or with a company in which he or she has a substantial financial interest.

Directors' and Auditor's indemnification

The company has not, during the financial year, in respect of any person who is or has been an officer or auditor of the company or a related body corporate:

- (a) indemnified or made any relevant agreement for indemnifying against a liability incurred as an officer, including costs and expenses in successfully defending legal proceedings; or
- (b) paid or agreed to pay a premium in respect of a contract insuring against a liability incurred as an officer for the costs or expenses to defend legal proceedings with the exception of the following matter:

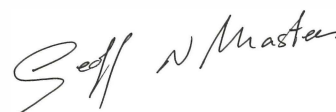
During the financial year the company paid a premium to insure each of the directors against liabilities for costs and expenses incurred by them in defending any legal proceedings arising out of their conduct while acting in the capacity of director of the company, other than conduct involving wilful breach of duty in relation to the company. The amount of the premium was \$2 392.

Signed in accordance with a resolution of the Directors.

For and on behalf of the Directors



Director: P.H. Karmel



Acting Executive Director: G.N. Masters

Date: 16 September 1998

Independent Audit Report

To the Members of Australian Council for Educational Research Ltd ACN 004 398 145

Audit Scope

We have audited the accompanying financial statements of the Australian Council for Educational Research Ltd for the financial year ended 30th June 1998 comprising the Balance Sheet, Income & Expenditure Account, Statement of Cash Flows, Notes to the Accounts and the Statement by Directors. The company's directors are responsible for the financial statements. We have conducted an independent audit of these financial statements in order to express an opinion on them to the members of the company.

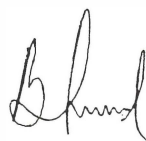
Our audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance whether the financial statements are free of material misstatement. Our procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial statements, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial statements are presented fairly in accordance with Accounting Standards and other mandatory professional reporting requirements and statutory requirements so as to present a view which is consistent with our understanding of the company's financial position, the results of its operations and its cash flows. The audit opinion expressed in this report has been formed on the above basis.

Audit Opinion

In our opinion the financial statements of the Australian Council for Educational Research Ltd are properly drawn up:

- (a) so as to give a true and fair view of:
 - (i) the company's state of affairs as at 30th June 1998 and its results and cash flows for the financial year ended on that date; and
 - (ii) the other matters required by Division 4, 4A and 4B of Part 3.6 of the Corporations Law to be dealt with in the financial statements.
- (b) in accordance with the provisions of the Corporations Law, and
- (c) in accordance with applicable Accounting Standards and other mandatory professional reporting requirements.

SAWARD DAWSON WRIGHT
Chartered Accountants



Partner: Bruce Saward

Date: 16th September 1998
Box Hill, Victoria

Australian Council for Educational Research Ltd
ACN 004 398 145
(a company limited by guarantee)

Balance Sheet at 30th June 1998

	Note	1998 \$	1997 \$
CURRENT ASSETS			
Cash	6	1,610,411	597,540
Receivables	7	2,994,584	1,621,641
Inventories	8	2,503,307	2,447,520
Other	9	141,478	128,523
TOTAL CURRENT ASSETS		\$7,249,780	4,795,224
NON-CURRENT ASSETS			
Property, plant and equipment	10	6,261,838	6,553,394
Intangibles	11	40,000	45,000
TOTAL NON-CURRENT ASSETS		6,301,838	6,598,394
TOTAL ASSETS		\$13,551,618	11,393,618
CURRENT LIABILITIES			
Accounts Payable	12	3,499,904	2,594,808
Borrowings	13	106,450	104,782
Provisions	14	1,088,654	1,054,037
TOTAL CURRENT LIABILITIES		\$4,695,008	3,753,627
NON-CURRENT LIABILITIES			
Borrowings	13	2,708,696	3,165,146
Provisions	14	245,311	216,959
TOTAL NON-CURRENT LIABILITIES		\$2,954,007	3,382,105
TOTAL LIABILITIES		\$7,649,015	7,135,732
NET ASSETS		\$5,902,603	\$4,257,886
MEMBERS' FUNDS			
Reserves	15	1,518,792	212,849
Accumulated Funds		4,383,811	4,045,037
TOTAL MEMBERS' FUNDS		\$5,902,603	\$4,257,886
Capital and Leasing Commitments	16		

The accompanying notes form part of these financial statements.

Income & Expenditure Account For the Year Ended 30th June 1998

	Note	1998	1997
	\$	\$	
Surplus from Operations Before Reserve Items	2	671,774	260,717
Amounts Relating to Reserve Funds:			
Scientific Research Fund Surplus (Deficit)			
Strategic Initiatives Fund Expenditure		(57,716)	(77,730)
Surplus from Operations		614,971	194,309
Profit on Extraordinary Item	3	1,029,746	-
Operating Profit and Extraordinary Item		1,644,717	194,309
Accumulated Surpluses at the beginning of the Financial Year		4,045,037	3,916,135
Total Available for Appropriation		5,689,754	4,110,444
Aggregate of Amounts Transferred to Reserves	4	1,305,943	65,408
Accumulated Surpluses at the end of the Financial Year		\$4,383,811	\$4,045,036

The accompanying notes form part of these financial statements.

Notes to and forming part of the accounts for the year ended 30th June 1998

1 STATEMENT OF ACCOUNTING POLICIES

The accounts are a general purpose financial report that have been prepared in accordance with applicable Accounting Standards and other mandatory professional reporting requirements (Urgent Issues Group Consensus Views) and the Corporations Law. The accounts have been prepared on the basis of historical costs and do not take into account changing money values or, except where stated, current valuations of non-current assets. Cost is based on the fair values of the consideration given in exchange for assets. The accounting policies have been consistently applied, unless otherwise stated.

The following is a summary of the significant accounting policies adopted by the company in the preparation of the accounts.

Income Tax

The company is exempt from paying income tax in accordance with the provisions of the Income Tax Assessment Act.

Inventories

Inventories are measured at the lower of cost and net realisable value.

Property, Plant & Equipment

Property, plant & equipment are recorded at cost or at independent valuation, less where applicable, any accumulated depreciation or amortisation. The carrying value of property, plant & equipment is reviewed regularly by the directors to ensure that it is not in excess of the recoverable amount of these assets. The recoverable amount is assessed on the basis of the expected net cash flows, which will be received from the assets employment and subsequent disposal. The expected cash flows have not been discounted to their present values in determining recoverable amounts.

Depreciation is charged on all fixed assets including buildings and capitalised lease assets, but excluding land on a straight line basis over the estimated useful life of the asset to the entity, commencing from the time the asset is held ready for use.

The relevant depreciation rates used are as follows:

Buildings	2.5%
Computer Equipment	25%
Furniture and Fittings	25%

Motor vehicles are depreciated over their useful life of four years.

Leases

Leases of fixed assets where the risks and benefits incidental to ownership of the leased item are effectively transferred to the lessee are classified as finance leases. Such leases are brought to account by capitalising, at the beginning of the lease term, an initial asset equal to the present value of the minimum lease payments. Assets subject to finance leases are amortised over the periods which are expected to benefit from the use of those assets.

Employee Benefits

Employee benefits in the form of annual leave entitlements have been provided for in the accounts by way of provisions based on leave entitlements at year end and current wage rates. Long service leave is accrued in respect of employees who have completed more than 7 years' service as this is estimated to represent the present value of future cash outflows in respect of long service leave entitlements.

Foreign Exchange Transactions

Overseas purchases are recorded at the rate applicable at the date of payment. At balance date, amounts payable are converted at the rate applicable at that date.

Library Additions

The company adopts the policy of charging all additions to the library directly to the profit & loss account in the year in which the expenditure is incurred.

Debtors

These are valued net of any known bad debts as these are written off in the period in which they become known by a charge against the provision for doubtful debts. A provision is then raised for any doubtful debts at year end.

	1998	1997
	\$	\$
2 OPERATING SURPLUS		
(a) Operating Surplus has been determined after:		
<i>Crediting as Income:</i>		
Interest Received		
Commonwealth Bank	23,245	25,348
Net Gain on disposal of property, plant & equipment	5,552	13,171
<i>Charging as Expenses:</i>		
Auditors remuneration:		
Auditing Services	15,505	15,045
Other Services	-	660
Interest paid or payable to:		
Commonwealth Bank	212,581	287,060
Movement in Provisions:		
Depreciation of property, plant and equipment	507,580	592,318
Employee Benefits	62,967	122,512
Net expense resulting from movement in provisions	570,547	714,830
(b) Operating Revenue		
Included in operating surplus are the following items of operating revenue:		
Trading Sales	5,575,902	4,777,545
Other Income	9,520,117	9,018,259
Interest Received	23,245	25,348
Proceeds on sale of Non-Current Assets	44,287	97,050
	15,163,551	13,918,202
3 EXTRAORDINARY ITEM		
Net refund of Payroll Tax, Financial Institutions Duty and Government Debts Tax arising from application for exemption		
	1,029,746	-
4 MOVEMENT IN RESERVES		
Transfer to Scientific Research Fund Reserve	913	11,322
Transfer to Strategic Initiatives Fund Reserve	1,362,746	54,270
Transfer from Other Funds Reserve	-	(184)
Transfer from Strategic Initiatives Fund Reserve	(57,716)	-
	1,305,943	65,408

For further details on reserve movements see Note 15

5 REMUNERATION OF DIRECTORS

Directors' Remuneration:

Income paid or payable to all directors of the company by the company or any related parties 221,966 208,858

Number of directors whose income from the company or any related party was within the following bands:

\$60,000 - \$69,999	–	1
\$70,000 - \$79,999	1	–
\$130,000 - \$139,999	–	1
\$140,000 - \$149,999	1	–

The names of directors who have held office during the financial year are:

Professor Peter Karmel
Professor Jillian Maling
Professor Barry McGaw
Dr Ken Boston
Dr Susan Zammit
Associate Professor Brian Devlin
Associate Professor Glenn Rowley (Appointed 14/5/98)
Mr Alan Ruby (Resigned 15/8/97)
Dr Wendy Jarvie (Appointed 19/2/98 Resigned 14/5/98)

6 CASH

Cash on Hand	1,000	1,000
Cash at Bank	1,609,411	596,540
	<u>1,610,411</u>	<u>597,540</u>

7 RECEIVABLES

Current

Trade Debtors	1,159,753	1,129,558
Less: Provision for Doubtful Debts	<u>(10,000)</u>	<u>(10,000)</u>
	1,149,753	1,119,558
Sundry Debtors	1,844,831	502,083
	<u>2,994,584</u>	<u>1,621,641</u>

8 INVENTORIES

Current

Stock on Hand	2,308,339	1,903,538
Product Development in Progress	194,968	543,982
	<u>2,503,307</u>	<u>2,447,520</u>

9 OTHER ASSETS

Current

Other Prepayments	<u>141,478</u>	<u>128,523</u>
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10 PROPERTY, PLANT & EQUIPMENT

Freehold Land - at Valuation (1994)	1,750,000	1,750,000
	<u>1,750,000</u>	<u>1,750,000</u>
Buildings - at Cost	4,287,505	4,244,909
Less: Accumulated Depreciation	446,460	339,808
	<u>3,841,045</u>	<u>3,905,101</u>
Motor Vehicles - at Cost	25,337	109,998
Less: Accumulated Depreciation	2,485	42,438
	<u>22,852</u>	<u>67,560</u>
Furniture & Equipment - at Cost	908,779	902,100
Less: Accumulated Depreciation	642,971	505,014
	<u>265,808</u>	<u>397,086</u>
Computer Equipment	1,104,940	1,240,700
Less: Accumulated Depreciation	722,807	807,053
	<u>382,133</u>	<u>433,647</u>
Total Property, Plant & Equipment	<u>5,251,135</u>	<u>5,553,394</u>

11 INTANGIBLES

Copyright, Issues Magazine	50,000	50,000
Less: Accumulated Amortisation	(10,000)	(5,000)
	<u>40,000</u>	<u>45,000</u>

12 ACCOUNTS PAYABLE

<i>Current</i>		
Trade and Sundry Creditors	1,602,337	1,449,082
Amounts Received In Advance	1,897,567	1,145,726
	<u>3,499,904</u>	<u>2,594,808</u>

13 BORROWINGS

<i>Current</i>		
Hire Purchase Liability	<u>106,450</u>	<u>104,782</u>
<i>Non-Current</i>		
Hire Purchase Liability	8,696	115,146
Bank Bills Payable	2,700,000	3,050,000
	<u>2,708,696</u>	<u>3,165,146</u>

Bank borrowings are secured by mortgage over 19 Prospect Hill Road, Camberwell.

14 PROVISIONS

<i>Current</i>		
Provision for Holiday Pay	606,440	580,381
Provision for Long Service Leave	472,214	463,656
Provision for Supplementary Superannuation	10,000	10,000
	<u>1,088,654</u>	<u>1,054,037</u>
<i>Non-Current</i>		
Provision for Long Service Leave	<u>245,311</u>	<u>216,959</u>

15 RESERVES

Strategic Initiatives Fund Reserve	1,459,300	154,270
Scientific Research Fund Reserve	59,492	58,579
	<u>1,518,792</u>	<u>212,849</u>

Movements in Reserves

Strategic Initiatives Fund Reserve

Opening Balance for the year	154,270	100,000
Transfer to Accumulated Funds	(57,716)	-
Transfer from Accumulated Funds	1,362,746	54,270
	<u>1,459,300</u>	<u>154,270</u>

Scientific Research Fund Reserve

Opening Balance for the year	58,579	47,257
Transfer from Accumulated Funds	913	11,322
	<u>59,492</u>	<u>58,579</u>

Other Funds Reserve

Opening Balance for the year	-	184
Transfer to Accumulated Funds	-	(184)
	<u>-</u>	<u>-</u>

16 CAPITAL & LEASING COMMITMENTS

Hire Purchase Commitments

Not later than one year	109,944	116,188
Later than one year and not later than two years	2,851	109,944
Later than two years and not later than five years	6,245	9,096
	119,040	235,228
Less: Future Finance Charges	3,894	15,300
Total Hire Purchase Liability	<u>115,146</u>	<u>219,928</u>

17 SEGMENT INFORMATION

The company operates predominantly in one geographical location being throughout Australia. The principal activities of the company, which is a company limited by guarantee; are research and development in the field of education.

18 MEMBER'S GUARANTEE

Each member of the company guarantees to contribute to the assets of the company in the event of its being wound up to the extent of twenty dollars.

Statement by Directors

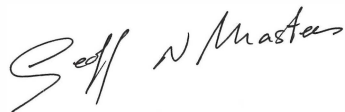
In the opinion of the directors of the company:

- 1 (a) The accompanying Income & Expenditure Account is drawn up so as to give a true and fair view of the surplus of the company for the financial year ended 30th June 1998.
 - (b) The accompanying Balance Sheet is drawn up so as to give a true and fair view of the state of affairs of the company as at 30th June 1998.
 - (c) At the date of this statement, there are reasonable grounds to believe that the company will be able to pay its debts as and when they fall due.
- 2 The accompanying accounts have been made out in accordance with applicable Accounting Standards.

This statement is made in accordance with the resolution of the Board of Directors and is signed for and on behalf of the directors by:



Director



Director

16th September 1998

Members of ACER Council

President

Karmel, Peter

Vice-President

Maling, Jillian

Coopted Members

Adams, Isabelle, Dip *KTC*, BA, BEd, MEd *Murdoch* Former District Superintendent, Education Department of Western Australia, Perth South District, Western Australia and currently Education Consultant, Western Australia

Karmel, Peter, AC, CBE, BA *Melb.*, PhD *Camb.*, PhD *ad eundem gradum Adel.*, Hon LLD *PNG, Melb., Old., ANU*, Hon D Litt *Flin., Macquarie, Murdoch*, DUniv *Newcastle, NSW*, FACE, FASSA Formerly Vice-Chancellor, Australian National University, Canberra, Australian Capital Territory

Maling, Jillian, AM, BA, DipEd, BEd *Melb.*, PhD *Stanford*, FACE Education Consultant, New South Wales

Poole, Millicent, CE, BA, BEd *Old.*, MA *UNE*, PhD *LaT.*, FACE, FASSA, MAPsS Vice-Chancellor, Edith Cowan University

Sweet, Richard, BA *Syd.* Research Coordinator, Dusseldorp Skills Forum

Members Appointed by the State Institutes of Educational Research

Devlin, Brian, BA (Hons) *Melb.*, DipEd *CCAIE*, MEd, EdD *Columbia*, FACE, JP Dean, Faculty of Education, Northern Territory University

Rowley, Glenn. BSc, BEd *Melb.*, MA PhD *Toronto* Associate Professor in Education, Monash University

Taggart, Andrew, HDipTeach *Rusden*, BEd *WAust*, MA PhD *Ohio State* Head, School of Arts and Humanities Education, Faculty of Education, Edith Cowan University (to November 1997)

Official Representatives Conference of Education System Chief Executive Officers

Boston, Ken, MA, PhD *Melb.*, FRGS, FACE, FAIM Director-General, Department of Education and Training, Sydney, New South Wales

Ralph, Denis, *BAAdel.*, DipT, MEd Admin *Alberta*, DipT FACE Chief Executive, Department of Education, Training and Employment, Adelaide, South Australia

Members Appointed by Secretary of Commonwealth Department of Employment, Education, Training and Youth Affairs

Brennan, Max, AO, BSc, PhD, *Syd.*, HonDSc *Flin.*, DUniv, *OUT* FAA, FAIP Chair, Australian Research Council, Canberra, Australian Capital Territory (to November 1997)

Jarvie, Wendy, BA(Hons), DipCompSci, MEngSci *Newcastle*, PhD *Flin.*, former First Assistant Secretary, Analysis and Evaluation Division, Department of Employment, Education, Training and Youth Affairs, Canberra (from November 1997 to May 1998)

Ruby, Alan, BA DipEd *Syd.*, AIE *Land.*, FACE Former Deputy Secretary, Department of Employment, Education, Training and Youth Affairs, Canberra, Australian Capital Territory (to August 1997)

Sara, Vicki, BA PhD *Syd.*, DOC, *Stockholm*, Chair, Australian Research Council, Canberra, Australian Capital Territory (from November 1997)

Staff Member

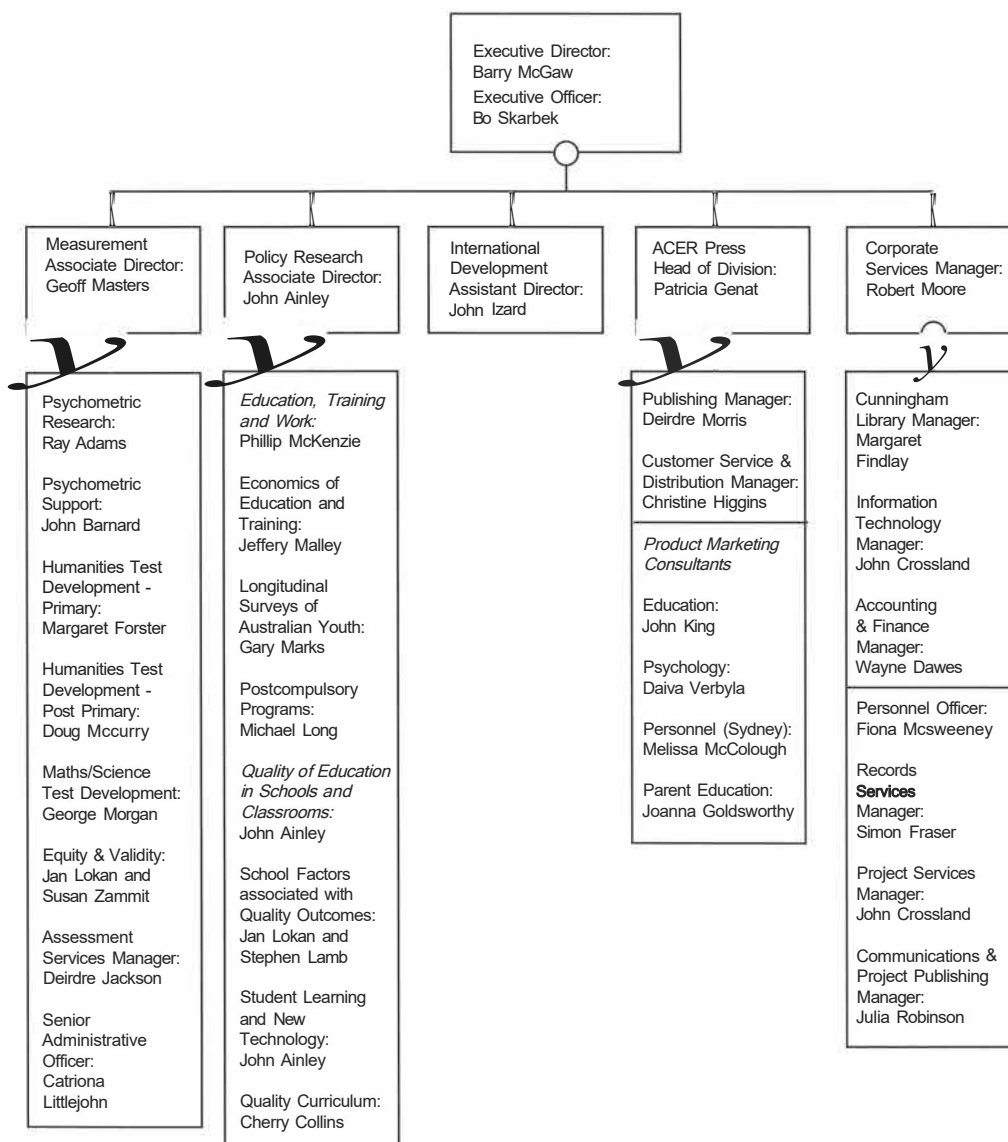
Zammit, Susan, BA(Hons) *Land.*, MEdSt, PhD *Monash*, MACE

Executive Director

McGaw, Barry, BSc, BEd(Hons) *Old*, MEd, PhD *Illinois*, FACE, FAPsS, FASSA

Members of ACER Staff

Organisational structure at 30 June 1998



Director's Award for Exceptional Service

Mr Steve O'Neill was the 1997-98 recipient of the Director's Award for Exceptional Service to ACER. This award, which is restricted to staff who work exclusively at ACER's premises and who do not travel as part of their employment, provides \$500 and return air travel for two between Melbourne and any one of Sydney, Adelaide and Hobart. Mr O'Neill is the Store and Despatch Manager.

As a condition of its contract with its travel agent, ACER annually receives the two complimentary air tickets. The cash grant is provided by ACER.

Directorate

Director

McGaw, Barry, BSc, BEd(Hons) *Old*, MEd, PhD *Illinois*, FACE, FAPsS, FASSA (to July 1998)

Executive Officer

Skarbek, Bozena, BA *Monash*, GradDipSecSt *CCAE*

Administrative Assistant

Marshall, Lexie

Measurement Division

Associate Director

Masters, Geoff, BSc, MEd *UWA*, PhD *Chicago*

Senior Administrative Officer

Littlejohn, Catriona, BEd *Melb.*, MBA *Monash*, AIMM

Administrative Officer

Bates, Susan

Principal Research Fellows

Adams, Raymond, BSc(Hons), DipEd, MEd, *Melb.*, PhD *Chicago*

Lokan, Janice, BA, DipEd *Adel.*, PhD *Ottawa*, FACE, MAPsS, MIAAP

Senior Research Fellows

Barnard, John, BSc(Ed), BSc(Hons), BEd, MEd, DEd *RAU*, MSc *Unisa*, PhD *UP*, EdD *Newport*

Doig, Brian, BAppSci, AssocDipMath *RMIT*, BEd *Monash*, GradDipCompEdn *MCAE*, MEd *Melb.*

Forster, Margaret, BA(Hons) DipEd *LaT.*, MEdSt *Monash*

Mccurry, Douglas, BA(Hons) DipEd *LaT.*

Morgan, George, BSc(Hons) *UNSW*, DipEd *SCV*, MSc *LaT.*, MEd *Melb.*

Withers, Graeme, BA *Melb.*

Zammit, Susan, BA(Hons) *Land*. MEdSt, PhD *Monash*, MACE

Research Fellows

Bodey, Wendy, DipT *VicCo1.*, GradDipCompEdn *Riverina Murray*

Bryce, Jennifer, BA, BEd *Melb.*, DipArts *VicCo1. of Arts*, MSocSci *RMIT*

Chamberlain, Jeff, DipEd *UOFS*, BA(Hons), *UP*, BEd, MEd, DEd *UNSA*

Congdon, Peter, DipAppSci *VCAH* (from January 1998)

Creese, Valdai, MA(Hons) DipEd *Oxf.* (to March 1998)

Darkin, Lynne, BA(Hons) *James Cook*, DipEd *LaT.*

Dick, Wendy, BA, MA *Melb.*, TPTC

Hambur, Sam, BSc(Hons) *Monash*, DipEd *HIE*

Hill, Kathryn, BA, DipEd TESL, MA *Melb.* (from February 1998)

Hunt, Malcolm, BSc(Hons), DipEd, PhD *Melb.*

Lindsey, John, BSc(Hons), PhD *Monash*, DipEd *Melb.*

Lonsdale, Michele, BA (Hons) DipEd *Melb* GradDip Student Welfare *Hawthorn*, MEd *LaT.*, PhD *LaT.* (from March 1998)

McQueen, Joy, BA, DipEd *Melb.*, BEd *Monash*, GradDip TESL *VicCo1.*, MA *Melb.*, MACE

Meiers, Marion, BA, DipEd *Melb.*, BEd, MEd *Monash* (from March 1998)

Mendelovits, Juliette, BA(Hons) *LaT.*, MA (Eng) *Melb.*

O'Connor, Gayl, BSc(Hons) *LaT.*, DipEd *Monash*, GradDipAppSc *Vic College*

Recht, Eve, BA (Hons), DipEd *LaT.*

Simpson, Brian, BSc, DipEd *Melb.*

Volodin, Nikolai, MSc(Stats), PhD *Tashkent*

Wu, Margaret, BSc(Hons), DipEd, MEd *Melb.*, GradDipComStudies *RM/T*

Research Officers

Chatfield, Robert, BEd, GradDipAdol&Child Psych, MA *Melb.* (from Jan 1998)

Congdon, Peter, DipAppSci *VCAH* (to January 1998)

Frigo, Tracey, BBSc *LaT.*, DipEd *Bendigo*, GradDipAdol&Child Psych *Melb.*

Greenwood, Lisa, BAppSci *Deakin*, GradDipCounsPsych *RMIT*

Macaskill, Greg, BSc(Hons) *Adel.* GradDipComStudies *RMIT*

Robbins, Frank, BSc(Hons), PhD *Melb.*

Administrative Staff

Firth, Patricia, (maternity leave)

Harvey, Georgia, (from January 1998)

Testing Services/ Assessment Services (from July 1998)

Manager

Sorrell, Mike, BSc, BA *Melb.*, BEd *Monash* (to December 1997)

Jackson, Deirdre, BA *Monash*, TPTC *Monash*, TTLC *Monash*, Certificate Project Consulting *RMIT* (from April 1998)

Administrative Staff

Aldous, Cecily, BA *Melb.*, DipEd(TESL) *LaT.*

Dodds, Robyn, BA *RMIT*, GradDipSoc *LaT.*
(maternity leave)

MacGregor, Margie, BA *Monash*,
CertManDev *Glasgow Caledonian U.*,
CertTEFL, GradDipAdvProfDev,
GradCertAdvProf Dev *Strathclyde*

Martin, Catherine, BA (Hons), DipEd *Melb.*
(from December 1997)

Skinner, Heather

Wright, Alayne, BA(Hons) *Otago*, DipT
Dunedin ColEd

Policy Research Division

Associate Director

Ainley, John, BSc, MEd, PhD *Melb.*, F^{OE}

Administrative Officer

Zubrinich, Julie, BA *UMA*, BEd *Deakin*

Principal Research Fellows

McKenzie, Phillip, BEc(Hons), DipEd, MEd,
PhD *Monash*, IFACE (leave without pay)

Rowe, Helga, BA(Hons) *Od.*, PhD *Melb.*,
MACE, IFAPsS, MIAAP (to December 1997)

Splitter, Laurance, BA(Hons) *Monash*, BPhil,
DPhil *Oxf.*, MACE

Senior Research Fellows

Batten, Margaret, BA, BEd *Melb.*, PhD
Monash, IFACE (to August 1997)

Collins, Cheryl, BA(Hons) *Adel.*, EdD
Harvard, IFACE

de Lemos, Marion, BSc(Hons), MSc *Natal*,
PhD *ANU*, MAPsS

Lamb, Stephen, BEd(Hons) *Tas.*, MEd, PhD,
Melb.

Malley, Jeff, BEc, MEd *Monash*

Marks, Gary, BSc(Hons), MSc. *Melb.*, PhD
Od.

Research Fellows

Harvey-Beavis, Adrian, BA *Chisholm*, MEd
Melb.

Johnson, Trevor, BSc, AUA, DipT *Adel.*, MA,
MEdSt, PhD *Flinders*

Long, Michael, BA(Hons) *ANU*

Mellor, Suzanne, BA *Melb.*, BEd *LaT.*, DipEd

Research Officers

Fleming, Marianne, BSc *Melb.*, BA
Swinburne

Robinson, Lyn, BA, DipEd *Monash*,
GradDipUrbResrch&Policy *Swinburne*

Administrative Staff

Perkins, Gladys (to July 1997)

Fleming, Nicole, BBSc *LaT.* (from February
1998)

International Development Division

Assistant Director

Izard, John, BSc, BEd *Melb.*, MEd *Monash*,
PhD *LaT.*, FACE

Administrative Officer

Kruse, Julie

Corporate Services Division

Corporate Services Manager

Moore, Robert, BCom *Melb.*

Personnel Officer

Maher, Kerin (to September 1997)

Fiona McSweeney, BA (Hons) *Melb.*,
GradDip IR/HRM *RMIT* (from February
1998)

Administrative Officer

Mitchell, Kylie

Receptionists

Coyne, Meg

Richter, Beatrice

Accounting and Finance

Manager

Dawes, Wayne, BBus *Chisholm*, CPA

Assistant Accountant

Todd, Ben, BBus *Ballarat*, ASA (to October
1997)

Cameron, Andrew, BComm *Deakin* (from
January 1998)

Administrative Staff

Car, Lyn

Evans, Dilsie

Harvey, Faye

Hodder, Gwen

Information Services and Technology

Manager

Crossland, John, BSc, DipEd *LaT.*,
GradDipMgtSys *Swinburne* (from November
1997)

Computer Services

Hare, John

Miller, Hilary, BA *Monash*,
GradDipAppSocPsych *Swinburne*

Nguyen, Daryl, BA(Computing) *Monash*

The Cunningham Library

Manager

Findlay, Margaret, BA *VicCoT.*, AALIA

Senior Librarians

Cuskelly, Maxine, BA *UNSW*, GradDip Lib *UNSW*, GradDip Ed & IPub *RMIT*, ALIA, A TEA (from January 1998)

Haby, Steven, BSocSci *RMIT* (from June 1998)

Librarians

Hughes, Stuart, BA (Hons) *Otago* (from April 1998)

Psiliakos, Lula, BBus *RMIT*, AALIA (from April 1998)

Walz, Vija, BAgrSc *Melb.*, GradDiplib *RMIT* (to November 1997)

Library Technician

Ashfield, Cheryl, AssocDipAppSocSci (Lib&InfSt) *Box Hill TAFE*

Brinson, Laura, AssocDipAppSocSci (Lib&InfSt) *Swinburne*

Library Officer

Psiliakos, Lula, BBus *RMIT*, AALIA (to March 1998)

Records Services

Manager

Fraser, Simon

Bonning, Judy

Project Services

Manager

Buckley, Carole

Cowhey, Pauline

Underwood, Catherine, BA *Swinburne* (from December 1997)

Despatch

Evans, David

Photocopying Services

Koglin, Dianne

Desktop Publishing Coordinator

Roberts, Tracey, BSc(CompSci) *Melb.* (to February 1998)

Robinson, Julia, BA(Journ.) *RMIT* (from February 1998, Manager, Communications and Project Publishing Unit)

Clark, Judith

Forster, Benjamin, BA(Des.) *Swinburne* (to January 1998)

Lacock, Gloria

Cleaning Services

Skiadopoulos, Maria

ACER Press

Head of Division

Genat, Patricia, IDipEd *Deakin*, GradDiplib, IBEd *Melb.*, MBus(Mkt) *Monash*

Administrative Officer

Taylor, Margaret

Thomson, Virginia, BA *Monash*, CertBusStud *RMIT*

Marketing Officer

Robinson, Julia, BA(Journ.) *RMIT* (to February 1998)

Bonaccorso, Mara, BA (Management Communication) *Deakin* (from March 1998, Promotions and Marketing Coordinator)

Education

King, John, IDipPE *Melb.*, IBEd *LaT.*

Parenting

Goldsworthy, Joanna, BA(Hons) *Oxf.*

Personnel and Human Resources Management

McCrossin, Peter, BEc. *Monash*, BA *Chisholm*, DipEdPsych *Monash*, MAPsS, CMAHRI (to May 1998)

Human Resources and Psychology, Sydney

McColough, Melissa, BSc(Psych)Hons, MPsych(Applied)Hons *UNSW*, MAPS

Psychology

Verbyla, Daiva, BEd *Melb State Coll.*, GradDipAdol&ChildPsych, MEdPsych *Melb.*

Customer Service

Manager

Higgins, Christine

Campbell, Yvonne, (from September 1997)

Icke, Kim (to May 1998)

Keele, Julie

Manuel, June

Whitehead, Simone

Gardiner, Jan

Rankin, Stephanie (from June 1998)

Store and Despatch

Manager

O'Neill, Steven

Gilder, Peter

Matravers, Philip

Smith, Ian

Publishing

Manager

Morris, Deirdre BA *ANU*

Senior Editor

Jonas, Pam, BA(Hons) *LaT.*,
GradDipMusStuds *Rusden* (to December
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Blansjaar, Nicole, BA *Melb* (December 1997-
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Miller, Elaine, BA (Hons), MA (from March
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Production Manager

Seddon, Roger

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Phillips, Michelle, BA(Hons) *LaT.*

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Tinney, Frank, BA, DipEd, MEd *Monash*,
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