

# Australian Council for Educational Research

forty-sixth annual report

# 75-76



**forty-sixth**  
**ANNUAL REPORT**  
**1975-76**



Australian Council for Educational Research,  
Frederick Street, Hawthorn, Victoria 3122

*The Director of ACER*  
*Dr William C. Radford*  
*died suddenly on the*  
*morning of 25 November 1976*

*He was a great leader, stimulating thinker,  
esteemed colleague and friend.*

A statement in tribute recording his great contribution to the work of the Australian Council for Educational Research will be prepared for next year's Annual Report.



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## Appreciation

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At its Annual Meeting on 21 October 1976, the Council noted with regret the deaths during the year of three men who had contributed to its work, and agreed that the following Minutes of Appreciation should be published.

**Dr Kenneth S Cunningham** was appointed as the Council's Executive Officer when it was established in Melbourne in 1930—a title changed to Director in 1939. Under the successive presidencies of Frank Tate, Tasman Lovell, and John Medley, he directed the work of the Council during the period of its establishment while it was funded by the Carnegie Corporation of New York, over the difficult years of World War II, and over the renewal of more educational work from 1946 to 1954 when he retired.

His high standing in the educational world, as well as among social scientists and other leaders of thought in the universities, and the respect accorded his knowledge of Australian education and his views on needed change by both students and administrators were prime reasons for the decisions made in 1946 by the Commonwealth and the States to join in joint funding of the Council and to support its work in other ways.

His interests were wide ranging and the Council's activities reflected this width. His personal contributions through articles, addresses, and the editing of reports as well as the initiation and guidance of projects were widely acknowledged. They went beyond education. He helped in the development of free libraries as well as in the general development of library work in Australia. His close involvement in the work of psychologists in education and guidance helped in no small degree in the setting up of the profession of psychology in Australia. His practical acknowledgment of the place of the social sciences in general education led to the close association with colleagues on the Australian National Research Council, which resulted in the establishment of the Social Science Research Council in 1952-53.

Those privileged to work with him remember with affection and respect his helpfulness, his high standards, his acceptance of change, and his readiness to follow to its conclusion any development of new understandings in learning and teaching.

His true memorial however is the Australian Council for Educational Research and the place he helped to make for it in Australian education in the quarter century in which he directed its work.

**Professor C R McRae** joined the Council in 1940 as a co-opted member. He was elected to the Executive in 1943, and appointed a Vice President in 1954. In 1959 he accepted appointment as Presi-



Dr K. S. Cunningham

dent, but ill-health led to his resignation from that position in the following year. He resigned from the Council in 1964.

His contributions to the Council's activities throughout that period were marked by an enthusiasm for a national viewpoint and a concern for the individual child and the practising teacher. His high academic standing with his colleagues in universities, and his acceptance by both teachers and educational administrators, contributed to the standing that ACER enjoyed in New South Wales in particular, where he held in the years prior to his retirement the posts of Professor of Education and Deputy Vice Chancellor in the University of Sydney. Those who had the privilege of his friendship will treasure his keen sense of humour and his warmth in personal associations.

**Mr Henry Schoenheimer** joined the staff of the Council as Chief Research Officer in its Review and Comparative Education Section in March 1975, and was planning at the time of his death the final form of a report on the purposes of schooling in Australia. His deeply held concern for effective personal development as a main purpose of schooling, and his even deeper concern for the future of man in a truly international world, were features of all his work. His colleagues on the staff of the Council miss his helpfulness as well as his critical approach to their work.

# Members of Council for 1975-76

## CO-OPTED MEMBERS

- Emeritus Professor P H Karmel, CBE, BA, PhD, FACE  
Chairman, Australian Universities Commission, Canberra, ACT
- \*Emeritus Professor P H Partridge, MA, FACE  
Australian National University, Canberra, ACT
- G A Ramsey, BSc, DipT, DipEd, PhD, MACE  
Director, Torrens College of Advanced Education, Adelaide, SA
- \*Professor R Selby Smith, MA(Oxon), AM(Harv), FACE  
Professor of Education, Faculty of Education, University of Tasmania,  
Hobart, Tasmania
- Professor D Spearritt, MA, MEd, EdD  
Professor of Education, Department of Education, University of Sydney,  
Sydney, NSW
- \*A H Webster, BA, BEc, FACE (**Vice-President of the Council**)  
Director of Planning, Education Department, Sydney, NSW
- \*W Wood, MA, BEd, FACE (**Vice-President of the Council**)  
Former Chairman, Board of Advanced Education, Brisbane, Queensland

## MEMBERS APPOINTED BY THE STATE INSTITUTES FOR EDUCATIONAL RESEARCH

### New South Wales

- Associate Professor R L Debus, BA, DipEd, PhD, MACE  
Professor of Education, Department of Education, University of Sydney,  
Sydney, NSW

### Victoria

- G J Whitehead, TPTC, BComm, BEd, MEd, PhD  
Executive Officer, Curriculum Services Enquiry, Department of Educa-  
tion, Melbourne, Victoria

### Queensland

- \*S A Rayner, MA, MEd, EdD, FACE (**President of the Council**)  
Registrar, University of Queensland, St Lucia, Queensland

### South Australia

- R S Coggins, BA, BSc, DipEd, DipT, MAIC, MACE  
Principal, Salisbury College of Advanced Education, Salisbury, SA

### Western Australia

- J Liddelow, BA, BEd(Hons), MEd  
Vice-Principal, Churchlands Teachers College, Churchlands, WA

## **Tasmania**

N L Behrens, BA, DipEd, MACE

Research Officer, Department of Education, Hobart, Tasmania

\*Member of Executive

## **OFFICIAL REPRESENTATIVES**

### **Directors-General of Education**

D H Mossenson, MA, BEd, PhD, FACE

Director-General of Education, Perth, WA

### **Australian Department of Education**

C L Beltz, PolSocDrs

First Assistant Secretary, Research and Development, Department of Education, Canberra, ACT



# Annual Report of the Director

Presented at the Annual Meeting of the Council 21 and 22 October, 1976\*

## INTRODUCTION

The reports on particular activities which follow have been for the most part prepared by the project officers or senior section officers concerned. I do not disagree with any of the views expressed. Nor do I think that the emphases given in the various reports are unjustified or exaggerated.

I have indicated for each of our major projects, and for each of our activities, the principal or sole source of funding, believing that this would be both of interest to members and informative to other readers.

Our activities cover a wide range and variety of education—from its purposes to the assessment of readiness for schooling, from preparing and distributing educational materials (not only tests) to attempting to evaluate some aspects of what they are trying to achieve, from advising on appropriate action on an educational problem to analysing evidence which may help to solve such a problem.

It is a varied program, and I am increasingly concerned that our resources are dispersed over too wide a front, and could with benefit to both the program and to the staff concerned be more concentrated. This applies particularly, I believe, to the program supported by the annual grants from governments which we call our core program, and to the use to which we put the income from our trading activities.

With the completion of some of our current activities it will, I hope, be possible to effect a greater concentration of varied resources on particular developments or problems, and deal perhaps, depending on the matter involved, with more of its probable complexities.

Nonetheless, as I reported last year, the work described in the following pages touches on many aspects of education, from preschool to the end of the secondary school and, in the case of our advisory services, beyond that level. It is, I believe, already adding to our knowledge of the outcomes of education and of some of the factors affecting those outcomes. Its direct applicability to specific and particular problems in the areas of our studies is not always immediately apparent: it is not wishful thinking, or post hoc excusing, which leads me to claim that the more one knows about a problem the more likely it is that it will be solved, that the critical questions will be uncovered, and that potential solutions will have a better chance of successful trial. It is worth remembering, too, that abortive results from one line of approach to a particular problem, or from what in retrospect

\*In its published form, the report has been abbreviated.

may appear a superficial but wide ranging exploration of an 'area of concern' like the education of the poor, may and often do lead to the productive examination of more likely solutions and often to the discovery of at least some effective answers.

We have given some further thought during the year to the most appropriate dissemination of the results from and reports on our studies, but cannot claim to have made marked headway.

It has been evident, however, that brief reports of ongoing projects, or results from studies, published in the *Newsletter*, have attracted interest from many who might not otherwise have known of the book, pamphlet, or article concerned. Similarly the brief report on the Australian Study of School Performance (the Literacy and Numeracy Study) sent out to schools and others provided factual material, and a background to the study, to many who might otherwise have read only the sketchy press reports about it.

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### **Growth and Stability of Program**

It is now some six years since approaches were first made to the State and Commonwealth Governments, through the Australian Education Council, for a progressive rise in the annual grants to the Council to enable it to concentrate more resources and attention on a more stable program, and to be sure that a reasonable number of staff members could work on the studies involved. As this approach was further discussed and its details defined, the four main elements in the proposed program became clearer. They were:

- reviews and comparative studies of Australian education;
- surveys of selected aspects of Australian education in both a national and international framework—for example school achievement, facilities, curriculum—and analytic, experimental, and learning studies;
- research, development, and maintenance of tests and other appraisal and evaluation instruments;
- curriculum—particularly studies and evaluation of change.

In all four of these areas of study it was expected that ACER could make an important contribution because it was independent and had an Australian outlook.

It was also accepted that there would be a growth in the staff working on these areas. Over a period of five years it was hoped that, including the appropriate library staff, the research staff would grow from some 15 to a maximum of 26.

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### **Funding—Annual Grants**

Late in the financial year 1974-75 it appeared that this general approach had been accepted, and that ACER could look forward to



a regular small growth in its grant-funded staff and to an elaboration of its program. It appeared to have been accepted that the annual grants would be adjusted to take account of national wage decisions and that, when academic salary increases occurred which affected ACER staff salaries, an adjustment to the grant would also be made. The latter was to be based on 70 per cent of the annual grant, and the percentage increase to be that at the mid-point of the lecturer's scale, the modal salary range for the ACER staff funded from the grant being that of lecturer.

For the 1975-76 year we had hoped to receive at least \$463 000. We expected this figure to be adjusted to take account of the national wage case of May 1975 and of any succeeding determination. Of this amount it would have been the usual practice for both the State and the Commonwealth Governments to contribute equal amounts.

In the 1975-76 Commonwealth Budget, \$211 500 was approved for ACER, and this was matched by the States. No adjustments were made during the year for the several national wage determinations.

In 1976-77, the Commonwealth has approved \$216 000 and indicated that at present we can expect this to be the total grant: i.e. there is little likelihood of adjustments for national wage or other determinations. We expect the States to match this contribution to give a total grant of \$432 000. We had hoped for a base grant of \$483 000, and a supplement of \$41 000 to catch up with indexation for 1975-76. Our hope arose from the understanding that this had been approved by the members of the Australian Education Council as a recommendation to their Governments.

The effect has been to reduce the grant, in real value, to below that for 1974-75. Rather than a growth in staff funded from the annual grants, and therefore a growth in program, we have had to reduce the program and not appoint new staff to the core program as we had hoped.

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### **Relations of ACER and the Education Research and Development Committee (ERDC)**

The ERDC, having been requested to advise the Commonwealth Minister for Education on the level of grant to ACER, arranged in early February last for the President of the Council and for me to discuss ACER's program and needs with the Chairman of ERDC (Professor Dunn), Mr Beltz (representing the Commonwealth Department of Education) and Mr Buggie (representing the Directors-General of Education).

We can expect it henceforth to be normal procedure for ACER to discuss its proposed program and staff needs for it with the ERDC, as a prologue to the recommendations made by that body

to the Minister. It seems certain that such recommendations will influence any decisions by the Australian Education Council on the matter of the annual grant to ACER.

It seems appropriate to record here the report of that meeting; it was, I believe, a significant one historically.

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## Part A—Relations

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1 Because the Commonwealth wants authoritative advice on expenditure on educational research, on needs, priorities, and the worthiness of programs, the ERDC expects—following the AEC meeting in the week beginning 9 February (1976)—to be asked by the Commonwealth Minister to comment on the grant to ACER, particularly having regard to the activities and program which the grant is to support. It is probable that such comment will be made by the Executive of the ERDC at least in the first instance. The Commonwealth Minister may also suggest that the ERDC advice on the question of ACER's grant be available to AEC.

2 The ACER will be expected therefore to provide information linking up the core staff concept with the several areas of study and the programs within them. It will be important for the proposed programs to be seen in the context of an overall plan for educational research, e.g. ACER programs involving curriculum research will need to be complementary to the programs for which the Curriculum Development Centre is responsible.

3 It is important that those funding ACER should have a clearer idea of:

- the size of the core staff;
- its basic research program;
- what is coming out of its work, related to national needs.

4 It is important also that those funding ACER should have a clearer idea of the variety of funding of ACER's program. Apart from that part of the program directly funded from the annual grants, there are for example

commissioned studies: e.g. of literacy and numeracy;

contract work: e.g. the development of tests for migrant pupils;

co-operative studies: e.g. the primary evaluation program (with NSW);

grant aided studies: e.g. of essential learning about society.

In addition, ACER derives income from gifts, from distribution and from service activities and this is used as the Council determines.

5 The ERDC will not expect requests from ACER core staff for grants; if in exceptional circumstances it is considered such a grant is needed, the request will be made officially by ACER for assistance to undertake projects additional to the current core activity.

6 If ERDC arranges to commission a particular study, e.g. TEEP tests, or a longitudinal study, for which members of the core staff are seen to be necessary workers, ERDC will meet the full costs, including replacement of core staff if this is necessary.

7 ACER may on its own initiative take up other requests and accept other commissioned studies. Some of these will be outside the core program at the time: it is expected that they will be fully funded. Some may relate to the core program at the time and some core staff may be available to assist with them. Any additional costs incurred—including those for necessary replacement of core staff—would normally be met from funds made available if the request or the commission were accepted.

8 ERDC will probably call a meeting of likely users of tests prepared specially for use at the transition point between secondary and tertiary education. One possible result could be ACER's involvement as this would be seen as a part of the core program.

9 The possibility of ACER acting as a publisher and distributor of research articles and reports, emanating either from ERDC-funded studies or from other studies, could be investigated further.

10 ACER could expect further requests from ERDC to provide training facilities for holders of ERDC research fellowships. Such facilities would include involvement in ongoing research studies, participating in planning etc.

If costs were incurred in this training ERDC would meet them up to a specified limit.

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## **Part B—Funding, Current Situation**

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11 Both bodies expect that joint funding of ACER by Commonwealth and State Governments will continue. ACER stressed the importance of such joint support from its point of view.

12 It would avoid delays in payment of the grant at recommended levels if any resolution passed by the AEC relative to grants to ACER were regarded as a commitment by the Commonwealth Government, as it appears to be by the States.

13 It is expected that as a direct result of the current cuts in expenditure, the Commonwealth will not increase its grant, but will hold it at the same level in 1976-77 as in 1975-76. The States will naturally not contribute more than the Commonwealth. It is also expected however that the Commonwealth will agree to adjust the grant to take account of national determinations since May 1975. If it does, the amount concerned will possibly be paid, retrospectively, with the 1976-77 grants. The basic size of the 1976-77 grant is likely to be the \$423 000 of 1975-76, adjusted to take account of the determinations of May 1975 and later, including those of indexation and academic salaries.

14 ACER expressed a strong preference for adjustments to the grant, arising out of determinations and indexations, to be made as soon after the decisions as possible. There appeared to be little difficulty in this in at least some States.



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## **The Nature of ACER's Program and Performance**

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I believe that the choice of areas of study and of particular problems within them, the speed with which reports of good quality can be made to bear upon important educational issues, and, where tests and other educational materials are concerned, their quality, early availability, and wide use by teachers and others in helping children learn, are all crucial to ACER's future. There are many places now where national research is undertaken. Our choice of program, and its impact, will need constant and critical care.

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## **Use of Advisory and Steering Committees and Consultants**

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In 1972 we invited Professors Evans, Keats, and Spearritt and Mr G D Bradshaw to help us as a Psychometric Advisory Committee. We have used their help as a committee only once, although individual consultations have occurred. Perhaps the idea of a committee for this function was inappropriate, and individual consultations would be simpler to arrange and more appropriate to most of our problems. Nonetheless, I think we could have made more effective use of the freely given expertness of this group.

In a number of our recent projects advisory committees have been established: the Evaluation of ASEP (see page 27), the Evaluation of the Science Facilities Program (see page 28), and the Evaluation of the Teacher Development Program of the Schools Commission (see page 21). For others funded by ERDC, advisory committees with a wider function and more project responsibility have been set up—Australian Studies of School Performance (see page 18), and Essential Learning about Society (see page 29). In others such as the Relation of School Performance to Social Indicators we have already made use of outside consultants interested in the problems; in still others such as the Study of Commonwealth/State relations we are proposing to use a small number of advisers, not necessarily as a committee.

I have no doubt that most, if not all, projects benefit from such an advisory committee, from the sensible use of consultants, and from the discussions with outside colleagues about problems and proposed solutions that have characterized ACER work.

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## **ACER's Role in Curriculum Activities**

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The establishment of the Curriculum Development Centre, and the extent of its charter, make it both unnecessary and unwise for ACER to undertake now the kind of curriculum development work represented in the Individual Mathematics Program and the Junior

Secondary Science Program, so long as such activities are a part of the CDC's program.

It was in accord with this estimate of the situation that, when it was apparent that the most effective follow-up work to the Conference on Primary School Mathematics of 1975 would be to develop or coordinate appropriate materials to help teachers, we proposed that CDC would most appropriately undertake such work, but that it was also appropriate that ACER could evaluate the results. The resulting action (see page 26) has been gratifying.

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### **Consultative Work**

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It is impossible to record all the occasions or subjects upon which senior and other staff are consulted. Although our Advisory Services Section now handles most of the enquiries formerly directed to the research staff, there is still a substantial volume of both face to face and written advice sought on many issues. Not all can or need be answered in detail, and often a good library reference is sufficient. However, many require many hours of co-operative effort. Much of it helps us, even if at times it delays a particular project.

### **SURVEYS**

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#### **ACER Primary and Secondary Sampling Frames**

M Rosier, K N Ross

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(This project is included in the ACER Core Program.)

The sampling frames of Australian primary and secondary schools that were prepared during 1975 have been extensively used during the current year by research workers both inside the ACER and outside.

The analyses being carried out for the Australian Study of School Performance have provided an opportunity to estimate the magnitudes of the sampling errors for two stage probability samples drawn from these sampling frames. In these estimations of sampling errors the Tukey-Quenouille Jackknife procedure has been employed to calculate values of the 'design effects'.

In addition a report has been prepared for publication as an Occasional Paper on the estimation of sampling errors for multivariate statistics, such as simple and multiple correlation and regression coefficients, for a variety of complex sample designs which are commonly used in educational survey research. This will, I hope, be regarded as a substantial contribution in an area in which comparatively little Australian research has been done.

## IEA Studies in Mathematics and Science

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### IEA Data Banks

J P Keeves

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(This project is included in the ACER Core Program.)

The IEA Six-subject Data Bank was received at ACER in late November 1975. It includes the data used in the recent series of studies by the International Association for the Evaluation of Educational Achievement (IEA). These covered Science, Civic Education, Reading, English as a Foreign Language, French as a Foreign Language, and Literature. Overall, some 19 countries participated.

Under a grant from the Ford Foundation, IEA rebuilt and edited the data sets and developed new documentation to make the results of its surveys more accessible to researchers in the social sciences. Research workers who were considering the possibility of carrying out further examination of the cross-national school survey data have expressed marked interest in the availability of the data sets within Australia. So far two research workers have submitted proposals for further work on the international data sets and one has submitted a proposal for a detailed re-examination of aspects of the Australian data. A small charge to cover computing costs is being made for gaining access to the data. It is envisaged that the data sets would be particularly useful to students undertaking other higher degree programs.

Two reports of such use of the Australian data have been published during 1975-76 in the IEA (Australia) Report Series. In both these studies the research workers identified schools within Victoria, at the 14-year-old level (Population II) and the terminal secondary school stages (Population IV) respectively, which performed above and below expectation based on the average home backgrounds and sex of the students within the schools. From further analysis of the data already available and from visits to the schools, detailed case studies were undertaken of these two groups of schools, seeking factors which influenced the performance in science of the students within the schools.

The report which was prepared during the first phase of the Educating for Leisure project has been revised and has also been published in the IEA (Australia) Report Series, since it drew largely on data held in the IEA data files for the 14-year-old group of students. The report was issued under the title *Concerning Leisure* and examined the clustering of leisure time activities, the location of such activities within the home, the school, or the peer group, and sought to identify the relative contributions of selected student variables to engagement in recreational reading. Case studies were also presented in the report on the inter-relations between work and



leisure time activities of working class, migrant, and anti-social youth and young women, the majority of whom were drawn in the IEA sample of 14-year-old students in 1970.

The data files for the Population II and Population IV Australian samples of students for the IEA Science project in 1970 have been rebuilt to include all data available from the follow-up studies that were carried out in 1972. All available school and teacher data have been incorporated into the files, and the information collected from the science specialist group has also been added to the Population IV master file. These two banks of data are also now available to interested research workers for further analysis.

During the year IEA (Australia) Newsletter No. 4 was prepared announcing the publication of the remaining major IEA Reports from the Six-subject Study in Stockholm in June 1976, and the availability of the data banks for further analysis of both Australian and international data.

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### **Population II Follow-up**

M J Rosier

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(This project is now included in the ACER Core Program, but at an earlier stage received a supplementary grant from the AACRDE.)

This project sought to examine factors associated with the career decisions of Australian 16-year-old students, using data collected in the IEA Science project and the follow-up study carried out in 1972. During this year further multivariate analyses were carried out and a draft report prepared by Mr Rosier before he left at the end of December 1975 to take up a Spencer Fellowship in Stockholm for a period of twelve months. While in Stockholm Mr Rosier has been completing a final report on the project for publication.

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### **Population IV Follow-up and Science Specialist Study**

J P Keeves, R Lewis

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(This project is now included in the ACER Core Program, but at an earlier stage received a supplementary grant from the AACRDE.)

At the conference of the Australian Association for Research in Education in Adelaide in November 1975, a paper on 'Curricular Factors Influencing School Learning' and, at the 47th ANZAAS Congress in Hobart in May 1976, a paper on 'Factors Influencing the Achievement of Science Specialists at the Upper Secondary School Level' were presented. Both these papers used data and analyses from the follow-up study carried out in 1972. The former paper has been revised for publication.

A report now in preparation on the transition of Australian students from secondary to tertiary education describes the academic destination and success of a sample of approximately 4000 students who completed their final year of secondary schooling in 1970. The sample was based on the IEA Population IV sample measured in 1970 as part of the IEA Science project, and followed up in 1972. The study investigated the academic fate of Australian students by defining four criteria which were:

- 1 the amount of time devoted to further study;
- 2 the type of educational institution attended full-time;
- 3 the field of study undertaken full-time;
- 4 the proportion of subjects passed in the first year of post secondary study.

The proportion of students in each of the criterion categories was described for five Australian States.

Relationships between these criteria and sixteen selected predictors were also investigated. The predictors considered were grouped into three broad groups which were considered separately. The groups contained (i) background variables, (ii) achievement variables, and (iii) attitudinal variables. The criteria were tabled against sex and father's occupation for each State, prior to a more comprehensive analysis. The detailed investigation was conducted only on data from New South Wales and Victoria and utilized THAID, a relatively new computer program which can be viewed as a simplified version of AID, able to describe relationships between predictors and a nominally defined criterion.

The report of the study noted the superior achievement of female students. It also described the possible economic factors reflected by the interaction of family size and father's occupation, recording the general strong and negative relationship between family size and full-time study, tertiary pass rate, and university enrolment. This effect was particularly noticeable in families where the father had a low level of occupation. The achievement variables of most importance in influencing the likelihood of full-time study and institution attended were generally the Year 12 examinations (sciences and English) whereas the CSSE tests taken in Year 10 tended to be more highly related to Field of Study. The most noticeable of the attitudinal predictors was liking for school. In both States a positive attitude clearly increased the likelihood of full-time study, university attendance, and success in tertiary studies. Attitudes favouring science, although related to several of the criteria, most affected field of study. Those liking science tended to study science. Student expectations of future education and occupation expressed in Year 12 had little effect on the criteria because of the homogeneity of the students with respect to these variables.



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## Second IEA Mathematics Survey — International

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Preparatory work has been started on the second IEA Mathematics Survey. The co-ordination and administration of the survey will be undertaken by the New Zealand National Centre which is located within the New Zealand Department of Education, Wellington. During May and June 1976 meetings of the International Mathematics Committee were held at the University of Illinois and at the offices of the Scottish Council for Research in Education, Edinburgh, and progress has been made towards the final design of the study.

The present objectives of the project are:

- 1 to describe the changes which have taken place in mathematics curricula over the period between the First IEA Mathematics Study in 1964 and the present time;
- 2 to assess what changes have accompanied curriculum change in the achievements of the 13-year-old and pre-university mathematics students on the topics previously tested;
- 3 to evaluate the performance of these students in the new areas added to the curriculum since 1964;
- 4 to investigate what changes in attitudes to mathematics have occurred among students and teachers since 1964;
- 5 to relate change in achievement between 1964 and the present day to variables associated with the teaching and learning of mathematics;
- 6 to provide training for research workers in the techniques of curricular analysis, item construction, and survey research.

Within Australia, through a longitudinal investigation at the 13-year-old level, it is hoped to examine factors associated with schooling and school practices which influence change in achievement in mathematics over a period of twelve months. It is anticipated that testing will take in Australian schools in August or October 1977.

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## Educational Achievement of Migrant Children

M de Lemos

(This project is included in the ACER Core Program, and at an earlier stage received a supplementary grant from the Australian Department of Education.)

The final report on this study was completed in November 1975. A summary report on the study was also prepared.

The results showed consistent differences in performance between the Australian- and English-speaking migrant children on the one hand and the non-English-speaking migrant children on the other hand. These differences were most marked on the language tests and were less marked on the non-verbal general ability test, the concept development test, and the arithmetic tests. A particularly important

aspect of the findings was that the differences between the non-English-speaking children and the other groups on the non-verbal general ability test, the arithmetic tests, and the concept development tests decreased from Grade 2 to Grade 6, and that at the Grade 6 level differences on the arithmetic tests and the concept development tests were not significant. These results suggest that there are no differences in the potential achievement of Australian children and migrant children of non-English origin, and that it should be possible for differences on the language-based school achievement tests to be overcome by means of appropriate educational programs.

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### **Language and Conceptual Abilities of Pre-school Children: Follow-up Study and Survey of School Readiness**

M de Lemos, P Larsen, R Davey

(This project is included in the ACER Core Program, and at an earlier stage received a supplementary grant from the AACRDE.)

Major testing for these two longitudinal studies was completed at the end of 1975. At this stage the pre-school sample had been tested in their pre-school year, on entry to school, and at the end of their first, second, and third years of schooling. The school readiness sample was tested on entry to school and at the end of their first, second, and third years of schooling. Some additional testing of the school readiness sample was undertaken in June 1976, when the ITPA Grammatic Closure sub-test, administered on entry to school, was re-administered in the fourth year of schooling.

The data from the survey of school readiness have been analysed, and a preliminary paper on these results has been prepared. It is expected that an interim report on the survey of school readiness will be completed by the end of the year. The analysis of the data from the pre-school sample will be undertaken in 1977, and it is expected that a report on the study will be completed by the end of 1977.

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### **Aboriginal Education Project**

M de Lemos, R Davey

(This project is included in the ACER Core Program and at an earlier stage received a grant from the Victorian Department of Aboriginal Affairs.)

An interim report on this project was completed in December 1975 and submitted to the Victorian Department of Aboriginal Affairs. This report covered the results of the surveys conducted in 1972 and 1973 of the total Aboriginal primary school population in Victoria and the total Aboriginal secondary school population in Victoria.

In 1976 work has proceeded on the analysis of the data from the 1973 testing program and the writing up of the final report on this

section of the study. It is anticipated that this report will be completed by the end of 1976.

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## **Study of Educational Performance and Specific Learning Difficulties**

S F Bourke, J P Keeves, R Lewis, K N Ross

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(This project is included in the ACER Core Program. Although formally commissioned by the Education Research and Development Committee, its importance is such that a substantial amount of core funding has been involved in it.)

The background to, and procedures employed in, this study were given in the 1974-75 Annual Report.

During the period covered by the 1975-76 Annual Report data were collected from 6628 and 6247 students aged ten and fourteen years, respectively. The students were in normal schooling throughout Australia. Initial data analysis was completed and two reports were written under very great pressure to meet deadlines and forwarded through the ERDC to the House of Representatives' Committee on Specific Learning Difficulties in March 1976. The Reports were published only recently by the Australian Government Publishing Service under the following titles:

Keeves, J P and Bourke, S F, *Literacy and Numeracy in Australian Schools. A First Report*. Australian Studies in School Performance. Volume 1.

Bourke, S F and Lewis, R, *Literacy and Numeracy in Australian Schools. Item Report*. Australian Studies in School Performance. Volume 2.

Copies of these reports were also sent to the Directors-General of Education in the six States, the Directors of Catholic Education, and the Directors of Education in the Australian Capital Territory and Northern Territory.

A brief report on the results of the study was also prepared and sent to schools which took part in the survey. It was also made available to interested persons who enquired about the project.

In summarizing the results it could be said that most students could perform most of the tasks required of them in the testing program. There were considerable numbers of students at both age levels who could not answer some test items correctly. However, in tasks which were identical or very similar, the 14-year-old students had a higher level of performance than the 10-year-old students. Approximately 3 per cent of the 10-year-old and 1 per cent of the 14-year-old students could not read simple sentences. These proportions represent approximately 7500 and 2000 students in normal schooling in Australia, aged 10 and 14 years respectively. On tasks testing reading comprehension of a newspaper and a paragraph



similar to material found in school text and reference books, approximately 25 to 30 per cent of students of both ages were unable to provide correct answers to the questions asked. The reading comprehension results are similar to those obtained in comparable English-speaking countries. Teachers stated that approximately 20 per cent of the 10-year-old students and 15 per cent of the 14-year-old students needed remedial instruction in reading and that about half those needing remedial assistance had been receiving it.

In the case of the Writing Tests, approximately three-quarters of the 10-year-old students were able to record a simple telephone message accurately and the same proportion could write an acceptable informal letter. Approximately nine-tenths of the 14-year-old students could complete these tasks successfully. However, only half the younger students were able to write a more formal letter and only three-quarters of the older students could do so. When asked to write an application for employment, half the 14-year-old students met the requirements of giving a return address, including a greeting, making an application for the job, and providing their name on the letter.

Although more than nine-tenths of the 10-year-old students could calculate accurately simple exercises involving money, smaller proportions knew their number facts and were able to calculate correctly using the four formal operations. However at the 14-year-old age level, less than nine-tenths could obtain the correct answers to slightly more complex calculations involving money. The performances of Australian 10- and 14-year-old students on use of the four operations were compared with the performances of 9- and 13-year-old students in the United States of America. Whereas the 10-year-old Australian students had higher performances than the 9-year-old students in the United States, the older students had approximately the same level of performance in this area. Approximately 20 per cent of 10-year-old students and 15 per cent of 14-year-old students were thought by teachers to need remedial instruction in number. However, more than half the 10-year-old, and more than two-thirds of the 14-year-old, students thought to need remedial assistance in number had, in fact, been receiving it.

A final report of the study (Volume 3) is being prepared. This report will contain the results of further analyses of the data in two areas: total test and sub-test scores and relationships; and ~~data in two areas: total test and sub-test scores and relationships;~~ and the performances of specific groups, for example, migrant and Aboriginal students. Further analyses of the results obtained on the criterion-referenced sub-tests have been undertaken. In order to examine cutting scores for these analyses, Bayesian statistical models incorporating carelessness and guessing factors are being employed. These models will permit the estimation of the probability that an observed score represents mastery of the specific objective being tested

in a given sub-test. The results of analyses involving comparisons of performance levels on the different tests and sub-tests, and on the incidence and effect on performance of physical, social, and learning handicaps as perceived by teachers, will also be reported in Volume 3.

Considerable interest has been generated by this study and a number of requests has been received from organisations for approval to use the tests which were prepared for the study. Where possible, requests which involved using the tests for research purposes have been approved. Requests for access to the data collected have also been granted after suitable safeguards were employed to preserve the anonymity of schools and students which took part in the study. In particular, most State Departments of Education have requested a computer tape of the results for their own State and these are being provided.

It is hoped that this study will prove to be a useful guide to those interested in identifying literacy and numeracy requirements of everyday life, and for further progress through the school system. Lists of the tasks and sub-tasks tested and copies of the test items used are being made available to help stimulate this discussion.

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### **Poverty, Education, and Adolescents**

A Wright, F Headlam

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(This study was almost entirely supported by a grant from the Victorian Government.)

In April last, a report on *Youth Needs and Public Policies*, based on an analysis of the records of interviews of one hundred and fifty 18-year-olds in Victoria, on other groups of adolescents who were regarded as representative of others in need, and of many adults concerned with the needs of youth, was presented to the Victorian Department of Youth, Sport and Recreation.

Under the publication arrangements, we obtained sufficient copies for our complimentary distribution, and a few additional copies to supply to enquirers who may be unable to obtain copies from the Department—particularly overseas ones.

It is difficult to summarize the many recommendations made. They are intended hopefully to provide better opportunities for a satisfying education, improved preparation for, and guidance into, work which will become more attractive, and an introduction to the more productive use of leisure.

There is a great deal of sobering material presented in the report about the dissatisfaction of many adolescents with both their past and their present, and about the rejection of much in our current society which appears to them to be unjustified, and often grossly unfair.

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## **Victorian In-service Teacher Education Evaluation**

M Batten, J Fyfield,\* B Hay, L Ingvarson,\* P Thomson, R Wines

(This project was funded by the Victorian In-Service Education Committee.)  
The project, conducted in collaboration with staff from Monash University, has been completed.

Reports produced this year covered the analysis of results of a questionnaire sent to 1000 teachers, detailed studies of twenty in-service programs, a study of school-based teacher development, and a study of the administrative structure of in-service education in Victoria over the past four years.

These reports are:

*In-service Education for Teachers: a Review of the Literature  
Questionnaire to Teachers*

*Detailed Studies of In-Service Education Programs*

*Administrative Aspects of In-Service Education in Victoria, 1973-76.*

A draft of the final report, containing recommendations based on the evaluation findings, has been presented to the Victorian In-Service Education Committee. A two day conference was held in September, at which members of the Committee and the evaluation team met to consider priorities in in-service education using the five evaluation reports and recommendations as a basis for discussion. The decisions arrived at during the conference will largely determine the allocation of funds for 1977. The conference report will constitute the sixth and final report of the project.

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## **Teacher Development Evaluation**

M Batten, V Carter, B Hay, P Thomson

(This study is funded by the Schools Commission.)

The Schools Commission has provided a grant for the evaluation of its Teacher Development Program, which has been in operation since 1974. The evaluation will be carried out over a twelve-month period, and will cover activities in all States.

The aims of the evaluation are to examine the ways in which the Program operates through the Development Committees in each State, and to determine the extent to which the operations incorporate the emphases of the Schools Commission reports. The evaluation will also try to assess the effects of the Program on the teachers and schools involved, and the degree to which it is meeting their needs. The Schools Commission Program will be considered in the context of the total provision for the continuing education of teachers in the 1970s.

\* Monash University.



Members of the project team will visit all States to interview Development Committee members, to conduct structured discussions with selected groups of teachers and representatives of other providers of in-service education. Case studies will be undertaken of Commission-funded activities such as school-based long term, and residential courses.

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### **Parish Primary School Survey**

J P Darmody, L A Bennett, H A H Rowe

(This project is supported by the Catholic Education Office, Melbourne.)

The aims of this joint project of the Catholic Education Office of Victoria and ACER are as follows:

- 1 to describe the school performance and a number of other variables relating to the general adjustment of children in Victorian Catholic primary schools;
- 2 to identify factors relating to performance in reading and mathematics and to general adjustment;
- 3 to identify areas requiring preventive and remedial action;
- 4 to recommend services which may assist schools to overcome certain problems related to school performance.

A report of this study will be published by the Office early in 1977 and will be generally available.

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## **REVIEWS AND COMPARATIVE STUDIES**

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### **Commonwealth-State Relations in Education**

D Tomlinson

(This project is included in the ACER Core Program.)

During 1975-76 this project developed in two directions to survey:

- (i) tables of expenditure for education by State and Commonwealth authorities;
- (ii) government and party-political programs for education and the reports of the Commonwealth Government's advisory commissions and committees for education.

Data on educational expenditure compiled by Ms Segall were used in a review of public expenditure for the quinquennium 1969-70 to 1973-74. The review was published as the Australian Education Review No. 5, *Finance for Education in Australia, Developments 1969-75*.

The data retrieval program used by Ms Segall has been incorporated in the storage and retrieval system for educational data of the Australian Bureau of Statistics. This has enabled easier avail-

ability of statistics of educational finance. It is proposed that, with the continued co-operation of the ABS, tables of expenditure for education will be updated annually for the purpose of periodic reviews of educational finance in Australia.

For the period June 1976 to June 1979, a program is being undertaken to investigate the relative degree and nature of the involvement of Commonwealth and State governments in educational planning. The period for the study is the decade 1969 to 1979. Two questions concerning policy development and national planning that are basic to this project are:

- 1 Has the Commonwealth steadily assumed greater control over educational policy?
- 2 In which areas of policy should the Commonwealth Government have the determining influence and in which areas should the States have control?

The underlying purpose is to examine the changing structure of control over the formulation of public policy for education. Three dimensions of control are contemplated: executive, political and financial. Within these dimensions the following aspects will be examined:

- 1 Executive control: the roles of statutory advisory commissions and committees of enquiry, of government departments, and of Cabinet and Parliament in changes for education since 1969.
- 2 Political control: the explicit legislative initiatives of the Commonwealth Government during the Australian Labor Party and the Liberal-Country Party administrations and their consequences for the control and provision of education.
- 3 Financial control: the financial constraints on policy and planning for education. This aspect of the project will involve reviewing public finance for education in the decade, examining financial arrangements and agreements between the Commonwealth and the States, and consideration of the emergent financial role of the Commonwealth through programs of States grants for education.

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### **Educational Policy and Political Platform of the Liberal Governments 1949 to 1972**

D Tomlinson

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(This project is included in the ACER Core Program.)

This project was completed in January, and a summary of the report, to be published in the Australian Education Review, has been prepared.

The study is divided into two parts. The first considers broader aspects of educational policy within Australia: an analytic review of constitutional constraints upon Commonwealth powers to legislate for



education; a descriptive study of the Liberal Party and the machinery for policy formulation within the organization; and an examination of policies for financing primary and secondary education during the period of Liberal governments, 1949 to 1972. The second part of the study investigates policy formulation in particular programs for primary and secondary education initiated by the Commonwealth Government: the science laboratories scheme, the secondary schools libraries program, grants for teacher education, assistance to students, and Commonwealth aid to independent schools.

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## **The Purposes of Schooling in Australia**

H P Schoenheimer

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(This project is included in the ACER Core Program.)

All his colleagues were saddened by the death on 24 September of Henry Schoenheimer. He had been with us for a brief eighteen months, and contributed much to our views on education.

During the year, Mr Schoenheimer made a personal overseas trip in the course of which he visited the East-West Centre at the University of Hawaii; the University of California at Santa Barbara; the Institute for World Order (New York) and schools and centres nearby; international education centres in London, Oxford and Cambridge; the Gandhian Institute in Delhi; and Recsam in Kuala Lumpur. New trends and purposes in schooling are emerging strongly, especially in the USA. These include: education for world order; confluent (cognitive-plus-affective) education, based on Esalen techniques; values clarification; conflict resolution (sometimes known as peace and conflict studies); and, more vaguely, international education or education for international understanding.

In Australia, Mr Schoenheimer took advantage of invitations to a number of in-service seminars and conferences to exchange ideas with educators at both classroom and departmental-administrative levels.

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## **Australian Education Review**

H P Schoenheimer, D Tomlinson

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(This project is included in the ACER Core Program.)

The change of editorship and some disappointments from scheduled contributors resulted in an unfortunately long hiatus in publication of the Review, which during the period was placed on a standing order, rather than an annual subscription basis. Reviews published

were *Finance for Education in Australia: Developments 1969-1975* by D Tomlinson, and *Australian Perspectives on Lifelong Education* by C Duke. *Australia and International Education* is in hand and due for publication early in November. The first two issues of 1977 will deal with 'Education Policy and Political Platform of the Liberal Party Governments 1949-1972' (February 1977) and 'Teacher Education' (May 1977) [the manuscript for the former is completed and in hand]. A case study of the development of the ACT independent education authority is timed for later in 1977. Other projected topics, not yet definite, include: rights in education, education and media, non-government schools.

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## **UNESCO Abstracts**

J Matthews

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(This project is included in the ACER Core Program.)

Abstracts of important Australian reports on education continue to be provided to UNESCO-IBE. During the twelve months from June 1975 abstracts were provided of five major reports.

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## **CURRICULUM INNOVATION AND EVALUATION**

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### **Swinburne Community School: A Case Study**

P Thomson

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(This project is included in the ACER Core Program.)

The report of this study has now been completed. It consists essentially of two main themes.

The first is a review of the alternative education literature and the identification of issues which define the alternative school movement in Australia. The second involves the evaluation of Swinburne Community School as an alternative school. The characteristics of the school which represent a significant contribution to the Australian alternative school movement are considered. This facet of the work is based on a case study approach and there is a description of the origins and workings of the school as well as the characteristics of the parent, teacher, and student groups. The relationship is drawn between the aims and intentions of the school which are relevant to alternative education and the realities of practice within the school.

It is planned to adapt sections of the material so that they form the basis of one or two substantive articles for educational journals.

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## **Mathematics for the Primary School**

P Jeffery, R Wines

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(This project was one within the Core Program.)

I reported last year that the 1975 Conference on Primary School Mathematics had agreed on the need for a comprehensive range of resource booklets which would help teachers to help children learn mathematics.

This idea was pursued further. As a direct result a proposal was made to the Curriculum Development Centre that they establish a project to develop a variety of materials for use in in-service and pre-service education of primary school teachers. These materials would enable teachers to develop the competence, comprehension and attitudes required to effectively implement new curricula, use new materials, and devise new teaching strategies in their own schools. Each set of materials will have clearly defined aims and objectives and incorporate a wide variety of aids such as journal articles, stimulus materials, AV materials, and student (teacher) work sheets for individual and group work. The materials will be flexible to allow tutors or groups of teachers to expand, modify, and adapt them to meet local needs and resources. The project, entitled MATHSHOP has received approval from the CDC Council and is being established. It is expected that ACER will be involved in the evaluation of the project and the materials produced.

The report on the 1975 Conference, which was made available in 1975 to those participating, was published early in 1976. It has already had encouraging sales, principally to tertiary institutions concerned with educating teachers.

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## **Curriculum Materials on Social Change**

M Ayres, J Matthews

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(This project was one within the Core Program.)

The second section of the curriculum materials concerned with 'People of the Western Desert' was developed by Ms Ayres before her departure in late 1975. This set of materials investigates the effects on Western Desert Aborigines of their abandonment of the traditional way of life in the desert and their move to Jigalong, a government settlement in Western Australia. These materials include slides, written material, and a cassette sound tape.

Following examination of the materials by the Aboriginal Consultative Committee of the Schools Commission, resulting discussions with a group of Aborigines in Victoria, and their trenchant criticisms of bias and distortion in the materials, an extensive revision of both



the first and second sections of the materials was begun in May 1976. These revised materials are being examined by Aboriginal students at Teachers Colleges and Colleges of Advanced Education and will be given a thorough trial in three schools during October 1976.

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## **Impact of the Australian Science Education Project (ASEP)**

J M Owen

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(This project is supported by the Curriculum Development Centre.)

This project began in February 1975. The project aims to assess the degree to which ASEP materials have been purchased and used in Australian schools, and to examine factors influencing the decisions made by schools to choose and use specific units. In addition, the project aims to obtain reactions from those teachers of science who have used the materials in their teaching. The date of commencement of the study coincided with the publication of the last of the 47 ASEP units. The project was timed to enable the collection of data from schools at various phases of implementation.

In late 1975 survey instruments, which had previously been given a trial, were sent to a sample of about 300 secondary schools throughout Australia. In each school information was supplied by the co-ordinator of science about the extent of purchase of ASEP, and about factors relating to the science department, such as the availability of laboratories, which might affect the decision to introduce the ASEP materials. Also, teachers of science in each school were asked to fill in a questionnaire. By December 1975, when the coding of responses commenced, 260 schools had returned the questionnaires. Information supplied by 1700 teachers, and the school co-ordinators, was coded to produce a file for each school, to be used in the analyses.

An early result, arising from the examination of the data, showed that the extent of use of ASEP varied significantly from State to State. It was decided, in the light of this finding, to attempt a comparison of the factors, in the 'educational milieu' associated with science teaching in each State, which were related to the diffusion of ASEP materials. An appropriate means for examining the effects on schools was then to be carried out in each State, taking into account any external factors.

To determine whether schools with similar buying and using patterns existed within each state, cluster analysis was used to group schools. Extent of use, and use over time, were the major variables employed. In addition, in more complex analyses other variables of a predictive nature were included. A paper outlining the results of the analysis carried out for one State was presented at the ANZAAS Congress in Hobart in May 1976.

In each State, by the use of these clustering procedures, the schools were found to form four or five groups. A test designed to discriminate between the groups allowed the most representative schools for each group to be identified.

Between April and August 1976 Mr Owen spent on average two weeks in each State. There were two major reasons for the visits. The first was to interview administrators and science educators to obtain more information about the milieu of science education in the State. The second reason was to visit schools selected by the techniques outlined above. Information about the decisions to buy and use ASEP and the problems of implementation have been obtained.

The analysis of the interviews recorded during these visits is under way. It is expected that the writing of the final report will commence at the end of September. The report is due to be completed by February 1977.

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### **Science Facilities Evaluation Project**

J G Ainley

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(This project is supported by the Schools Commission.)

The objective of this project is to evaluate the educational effects and impact of the Australian Science Facilities Program. The project, although supported by a grant from the Australian Schools Commission, was undertaken at the request of the committee which was responsible for advising the Australian Government on the program for providing science facilities in independent schools.

The investigation has proceeded through a number of phases, each of which has made use of different methods as appropriate to the aspect of the project involved.

A *The survey phase* involved a survey of a sample of Australian secondary schools by mail questionnaire in October 1975. This coincided with the conclusion of the Australian Science Facilities Program and asked information about science room and apparatus, the science teaching programs, the science teaching staff and enrolments.

B *The school visit phase* involved a smaller sample of schools selected from the survey sample to represent varied conditions for science teaching. Each school was visited for two days during which:

- (i) interviews were held with each year 9 science teacher;
- (ii) a questionnaire (Views of Science Classrooms) was administered to 100 Year 9 science students;
- (iii) the science co-ordinator and ancillary staff were interviewed;
- (iv) observations were made of the use to which facilities were put and of the facilities available.

C *The IEA Data Bank phase* involves examination of student achievement in and attitudes to science, and information about

teacher attitudes to science, which were available for the IEA sample of schools in 1970. Additional information about the level of science facilities in each of these schools at that time has been obtained from a variety of official sources and will be related to the data which already exist.

D *The study of school systems.* In order to gain sufficient detail to build a description of the administrative policy of each state system and of the Commonwealth, interviews were held with officials involved in the scheme and an examination of records of the scheme was carried out.

The data collection for each phase of the project is virtually complete. The survey data have been substantially analysed and used as the basis of a paper presented at the 47th ANZAAS Congress in Hobart in May 1976. The paper suggested that while schools were generally adequately provided with science rooms there was a small number of schools (about 10 per cent) which were deficient. These were mainly government schools. Work is proceeding on the analysis and interpretation of the other information which has been collected.

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### **Essential Learning about Society**

K Piper, J Kimpton, J Clancy

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(This project is supported by the Education Research and Development Committee.)

This project has been investigating the following questions:

- Is there a body of learning about society, and about living in society, which can be considered to be not merely desirable but *essential*—that is learning which *all* children leaving the school system to enter the wider society *need* to possess if they are to participate fully and equally in Australian society?
- If so, can this *essential* learning be specified?
- To what extent is there agreement, or lack of it, among various groups in Australian society as to what constitutes this *essential* learning?

During the first stage of the project items were formulated on essential learning about society, by means of a literature review, interviews, and small workshop discussions which were designed to tap a wide range of views. This formulation, together with additional items collected during stage one, formed the basis of the questionnaire used in the Australia-wide survey which constituted the central feature of stage two of the project. This survey sampled the views of 1157 academics, educators, parents, pupils, and members of community groups. An overall response rate of 75 per cent was achieved, with six of the ten groups surveyed recording response rates of more

than 85 per cent. Interviews are being carried out with ethnic minority groups to supplement the questionnaire data.

During the third stage of the project we will be seeking to bring together the formulation of stage one and the empirical data collected in stage two. While it would be premature to anticipate the findings at this stage, it is clear that we will be able to identify a set of key items of social learning which have considerable support as to their essentiality, and consensus as to their importance. There are also interesting group differences, age differences, and sex differences in perceptions of what constitutes essential learning about society.

Reports on the project are being prepared. These are expected to be completed by December 1976.

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### **Response to the Reading of Fiction**

A N Grant\*

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(This project is supported by the Education Research and Development Committee.)

This research project commenced in 1975. It consists of a descriptive study of students' responses to the reading of fiction, based on individual case studies which draw primarily upon information obtained from interviews, and to a lesser extent upon questionnaire data.

The key issues being studied are:

- the expectations pupils bring to the reading of fiction (e.g. the personal constructs which an individual uses to explain why people react as they do in everyday life become the means whereby he might make a judgment about the reactions of characters in fiction);
- the characteristic way the reader 'takes on' a story, interacts with it, and makes it his own (e.g. the tendency of a reader to explore the same themes in different novels, recurrent themes such as the expression of power and the curbing of power);
- the purposes served by this interaction between the reader and the story (e.g. through the process of the reader's identification with characters in the story, reading may work as a reassurance that the kind of identity theme the reader wishes to shape for himself is viable).

A cross-section of secondary schools in the Melbourne area was represented in the teacher and pupil questionnaire sample, and subsequently pupils from eight of these schools were interviewed in November and December 1975. The samples were originally designed to represent a range of reading interest amongst Year 10 pupils, and

\* Miss Grant is a temporary member of staff for administrative purposes only, but consults by arrangement with a number of members of staff.



to involve English teachers with a particular interest in reading response. In 1976 work has concentrated on the detailed analyses of the interview transcripts.

It is intended that a report of the study will be available for teachers in 1977, and that it will cover in the main individual case studies, and a typology of reading purposes established from the interview sample, together with a discussion of the implications for teachers and for further research.

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## **Language of Primary School Children**

W T Renehan

(This project is now funded from ACER's own resources. It was formerly assisted by the AACRDE and the Victorian Education Department.)

The purpose of this study is first: to describe what children in the primary school are doing with language (what functions they call on language to serve and how effectively, what routes they take to discovering the functions their language might serve) in a small number of classroom situations; and second: to suggest by means of the description a way in which teachers might listen to and read children's language as a pre-condition to fostering its growth.

The description has been completed for Year 2. Description of the Year 6 and Year 4 language should be completed later this year. The report on Year 2 has attracted considerable interest, and we expect the final report, to be completed early in 1977, to attract even more attention.

Mr Renehan's commitment to the Migrant Education (Testing) Project, and to other tasks, has delayed completion of this study.

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## **Communications Media**

R F Smith

(Mr Smith is seconded from the Victorian Education Department.)

This course in communications is multi-disciplinary in nature and in part uses ideas from existing curricula, but attempts to co-ordinate the various media so that the most appropriate media are used for presenting selected facts and ideas. The materials being developed are mostly in book form but employ a series of graded and varied activities. For initial trials the course booklets are being prepared as cheaply and simply as possible, and the assessment of the suitability of the program is being undertaken largely by the developer in an informal way.



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## Educating for Leisure

D W Fox, J J Clancy

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(This project is supported by a grant from the Commonwealth Department of Environment, Housing and Community Development.)

This study is examining the influence of the Australian secondary school on young people's leisure and recreation interests, attitudes, and activities and in particular is seeking to specify the types of school programs and practices which are most effective in helping young people to use their leisure time in satisfying and rewarding ways.

The first phase of the study was completed with the publication of a report *Concerning Leisure* during 1976. Whilst illustrating that schools can and do make a difference to the leisure attitudes and practices of their students, the report indicates that insufficient is known about what schools do, or what they might do, in this sphere.

The second, and major phase, of the study has two main thrusts. Firstly, what do schools themselves see as their functions and responsibilities in 'educating for leisure' within their role as 'educators'? Considering the resources available to a school and its geographic and socio-cultural setting, what are the practicalities of combining this objective with the other responsibilities which the school sees itself as having?

Case study questionnaires and staff interviews are being used to collect the information.

Secondly, how do young people think about the meaning of leisure within their lives? What factors affect recreational choice and what is the relevance of their school in relation to options and opportunities available for leisure activities?

Questionnaires, group discussions and writing tests are being used with Year 8 and Year 11 students within the sample schools in order to collect this information.

Most of the data will be gathered during 1976 by visits to a random sample of 130 schools around Australia. Some additional visits will be made in 1977 to selected schools which have innovatory or specially committed leisure education programs.

A central part of the proposed data analysis is the statistical testing of a 'school press' model aimed at identifying the outcome of leisure programs and practices of the school. The model incorporates measures of the *opportunities* provided by the school, the nature of *encouragement* and *reinforcement* used and the extent of *linkages* that are made with recreational opportunities outside the school. Student attitude and participation measures on a comprehensive range of leisure and recreation activities will provide the criterion variables for this model.

Trials of the measuring instruments have revealed that there are clear variations in the type of leisure 'press' exerted by different

schools. As yet, insufficient analysis has been done to determine the nature or extent of influence of these variations on young peoples' leisure attitudes and practices. It is intended that the less structured, descriptive information returned by student writing tasks, interviews, and group discussions will be used to illustrate and supplement findings arising out of the model-based analysis.

A final report on the project is expected in late 1977.

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## **EXPERIMENTAL AND ANALYTICAL STUDIES**

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### **Social Area Analyses**

K Ross

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(This project is included in the ACER Core Program.)

This study is concerned with examining the relationships between Census derived community characteristics and levels of literacy and numeracy in Australian schools.

Each of the 14 000 students who participated in the ACER study of Literacy and Numeracy will be linked to his community characteristics by means of a Census Collectors District Code. This linking process, which requires the use of street directories, telephone books and Census Bureau maps, has been completed for Victorian metropolitan schools, but is proving to be more time consuming for Victorian country schools. When all students in Victorian schools have been coded some exploratory analyses using multiple regression analysis will be carried out.

It is expected that this study will provide some validated indices which would be of use in identifying disadvantaged students and disadvantaged schools.

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## **TEST RESEARCH, DEVELOPMENT, SERVICE AND MAINTENANCE**

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### **Australian Item Bank Program**

P Allanson, V Carter, M Cropley, J Foyster (until May), M Lee, F Maas, G Morgan (from May), P Thomson

(This project is included in the ACER Core Program. Mr Allanson is seconded from the Western Australian Department of Education, and Miss Lee, Mr Cropley and Mr Maas from the Victorian Department of Education.)

The Australian Item Bank Program is a good example of a co-operative enterprise. Since late in 1972 the various States and territories have been working with ACER in the production of collections of multiple-choice questions in mathematics, science and social science

suitable for classroom use at Year 10 level. Although the degree of co-operation has varied, all have willingly contributed their resources to ensure the success of the venture. Teachers throughout Australia have been the main source of the questions in the bank. Teacher involvement in the project has been obtained through the support of the state and territory education authorities, the examination boards, and the independent school system.

There are 9000 questions in varying stages of development, and the first collections of these have been made available to teachers through three publications. These are sample booklets of items in mathematics and science together with a teachers handbook. The plan is to make the items available over the next eighteen months, so that the total 9000 questions may be placed in the hands of classroom teachers as soon as possible.

A special grant of \$10 000 from the Schools Commission has been used to prepare a report on the possible future development of the Item Bank Program. This report, *The Australian Item Bank Program: A Planning Study*, presents a number of alternatives for future item bank development, and recommends to the Commission the adoption of one of these, at the same time requesting the Commission to provide funding for this recommendation.

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### **Biology Diagnostic and Achievement Tests**

P Allanson, P Thomson

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(This project is included in the ACER Core Program. Mr Allanson is seconded from the Western Australian Education Department.)

This program will be completed with the publication in February 1977 of the last of the Year 12 achievement tests and the final set of explanatory aids.

There will then be nineteen diagnostic tests and eleven achievement tests with explanatory aids making up the test battery for biology courses at the last two years of secondary school.

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### **Physics Unit Tests**

G Wilmot, P Thomson

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(This project is included in the ACER Core Program. Mr Wilmot is seconded from the Victorian Education Department.)

Preparation of twenty-five physics tests is continuing this year although work was delayed for several months because of staff change-over.

The tests are designed to cover twenty-five physics topics that will be acceptable to all secondary schools throughout Australia for Years



11 and 12 level, yet not specifically related to any one particular course.

Four of the diagnostic tests have already been completed. Items submitted to the project this year are at present being reviewed, and it is anticipated that another ten topics will be ready for trial testing in schools during October. Analysis of the results later this year will enable fourteen tests to be ready for publication next year.

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### **Junior Secondary Mathematics Topic Tests**

G Cornish, R Wines

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(This project is included in the ACER Core Program. Mr Cornish is seconded from the Victorian Education Department.)

Trials of items in two areas, mathematical operations and spatial development, have been completed. Statistical analyses indicate that the Rasch measurement model will be useful in providing interpretative information based on relative mastery in topic and process dimensions. Common scaling between the two areas allows for additional interpretation in terms of operational levels e.g. concrete and formal.

Final forms in the two areas will be produced by the end of 1976. The spatial tests manual will also provide comparative information with other spatially oriented tests available from ACER. Items in other areas (number, measurement, logic, and relations) are available for trial testing, but further development will be delayed pending assessment of teacher acceptance of the innovative interpretative features of the spatial and mathematical operations tests.

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### **Australian Scholastic Aptitude Test (ASAT)**

B Hay, L Lees, G Morgan, P Thomson

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(This project is funded from income from users.)

The last major revision in format of the Australian Scholastic Aptitude Test took place in 1973 with the production of ASAT Series B. A new test has been developed in each of the subsequent years and 1976 saw the production of the fourth in the new series: ASAT Series E. This test is being administered to the Year 12 student populations in the Australian Capital Territory, Northern Territory, Queensland, and Western Australia.

In May 1976 ACER arranged a conference of users and potential users of the test at which all States and Territories were represented. One major outcome from this conference was the decision to produce a single ASAT which takes three hours to administer. (At present two versions are available, one of three hours and the other consisting of two papers each of two hours.) It was also decided that ACER would



issue an annual examiner's report which the States and Territories could pass on to individual schools and thus increase the amount of information available on the test at the school level.

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### **Paragraph Reading Test**

B Johnson, L Lees

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(This project is funded from ACER's income from sales.)

Following the item writing, trial tests were administered in six primary and six secondary schools, at Years 6 and 7 respectively. Subsequent to item analysis and a review of the material, a final version of the test, comprising 35 items ranked in order of difficulty, was prepared for printing. It will be a screening test to help teachers assess the general level of their students.

Further testing will be carried out later in 1976 to obtain necessary statistical data and the test will be ready for distribution early in 1977. An interim manual will accompany the test in the first instance. It is planned to collect data from all States for the final form of the manual to be published later in 1977.

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### **ACER Mathematics Tests (AM Series)**

P Jeffery, J Foyster, G Cornish, E Watson

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(This project is funded from ACER's income from sales.)

A draft of the manual is now being revised for publication during the 1977 school year.

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### **ACER Class Achievement Test in Mathematics (CATIM)**

P Jeffery, G Cornish, R Wines, J Izard\*

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(This project is funded from ACER's income from sales.)

This test has been designed to survey the mathematical skills of children in Years 6 and 7. It consists of 45 multiple-choice items for completion by children in about the same number of minutes. The CATIM test and supporting components were designed as a unit to assist teachers to obtain and analyse class performances in terms of skills rather than norms. It provides for the transfer of each child's item responses to a Class Analysis Chart. The Chart provides information on a classification of items (a) by topics, such as whole numbers and fractions, and (b) by the general nature of the thinking process required, i.e. knowledge, computation, application and understand-

\* State College of Victoria at Coburg.

ing. The charting procedure also facilitates the preparation of local item facilities which may be compared over time or with the sample item facilities provided. In short the test was designed to answer the need for a simple survey test of primary mathematics at about the point of transition from primary to secondary school, but it has been presented in such a way that it encourages interpretation in terms of mastery of skills rather than comparison with normative data.

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### **Music Evaluation Project**

J Bryce, M Cooke\*

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(This project is funded by the Education Research and Development Committee.)

This project aims to produce a series of diagnostic tests based on the objectives of the Experimental Teaching Project directed by Mr Max Cooke in the Faculty of Music, University of Melbourne. In 1976 work has concentrated on the development of a profile of musical skills and knowledge for use at the very beginning of secondary school or, if practicable, at the end of primary school. The profile will give the teacher a picture of each student's skills and knowledge in a number of key areas: recognition of differences in pitch, rhythm, volume, timbre; identification of instruments and instrumental groups; and knowledge of signs and symbols in a musical context. The tests, with an accompanying handbook providing information on test administration, and item facilities and discriminations, will be available for use in schools early in 1977.

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### **Migrant Education (Testing) Project**

W Renehan, G Withers, R Dabke, J Emmins, E Hoare, O Lademann

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(This project is funded by the Commonwealth Department of Education.) Work in this three-year project is now nearing completion, and publication of the tests and other devices for use by teachers of migrant students is expected early in 1977.

Since July 1974, 130 trial tests, covering the skill areas of listening, speaking, reading, and writing, have been written and trial tested. From these eighty-four tests will be published in the final collection, together with a handbook for teachers and a manual of instructions for administration.

The tests written cover auditory perception, comprehension of grammatical and lexical meaning, integrated comprehension and production, and communicative competence. Trial testing was carried

\* Co-investigator. Faculty of Music, University of Melbourne.

out in two stages, late 1975 and early 1976, and took place in all States. Testing was concentrated in upper primary and lower secondary grades, and a check on validity was made by parallel testing of small samples of native speakers.

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### **Victorian Primary Schools Testing Program**

B Johnson

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(This program was partly funded by the Victorian Education Department.) During October 1975 a testing program using the Basic Skills Test R (reading) and Test E1 (spelling) was conducted in a sample of Victorian Government schools at the request of the Victorian Education Department.

A report comparing the 1975 results with those from the same tests given in 1967 was presented to the Department in February 1976.

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### **NSW Primary Evaluation Program**

W Renehan, B Johnson, E Watson

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(This program was partly funded by the NSW Department of Education.) The program, which began as the NSW Basic Skills Testing Program in 1962, continues as a co-operative activity of the Department of Education and ACER. Under this program tests in mathematics, reading, spelling, listening comprehension, and study skills are distributed annually to approximately 1200 NSW Government primary schools.

The major activity this year has been the final preparation, printing, and norming of the new PEP Reading Test. Normative data for this test were collected during October 1975 and April 1976, and will be printed in the Teachers Handbook, which is nearing completion.

Revised handbooks are also in preparation for Tests E1 (spelling), S3 (reference materials) and L (listening). New normative data for these tests were collected during 1975 in April and October, and will be presented in the handbooks.

At the time of reporting, negotiations are under way with the Department for all program materials to be printed by the NSW Government Printer and distributed through the Schools Supplies Branch of Government Stores. This move should allow better utilization of funds allocated to the program. ACER's involvement in associated research and development activity is expected to continue.

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## **Co-operative Scholarship Testing Program**

E Watson

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(This program is funded by participating schools.)

This program is conducted each year on behalf of a number of independent schools in all Australian States. General regulation of the program resides in an ad hoc policy committee of Principals of Independent Schools and ACER staff.

The program provides for examination at two levels: for entrance to secondary school and for continuation beyond Year 8. The areas examined at Level 1 are Written Expression, Humanities, and Mathematics; at Level 2 Science also is examined.

Administration of the program, including the development of tests and their marking, is carried out by ACER. Test scores, standardized by level and State, are returned to schools which then use the results as a basis for offering scholarships.

In 1976 the examination took place on 31 July. More than 8500 candidates registered for scholarships offered by 102 schools. The candidates sat either at participating schools or at special centres set up in 40 rural and 20 overseas cities or towns.

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## **ASAT Special Testing Program**

B Crisp, P Thomson

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(This program is self supporting. The users meet the costs involved.)

In 1973 ACER responded to a need, expressed by some tertiary institutions, for a general ability test suitable for use with mature-aged and other special category candidates applying for admission to tertiary courses.

Modified forms of existing Australian Scholastic Aptitude Tests were produced to assist with the selection procedures in the institutions. The program has continued since 1973.

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## **Review of Diagnostic Reading Tests**

W Renehan, N McBean, B Johnson

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(This project is funded from ACER's income from sales.)

The project involves, first, an examination of diagnostic reading tests in the ACER catalogue, of test reviews, and of the literature on reading difficulties with a view to producing an Advisory Bulletin which will discuss the relevant theories of reading difficulty and evaluate the tests listed in the catalogue. Second, the project will in



co-operation with a group of teachers revise the Individual Reading Test and develop a diagnostic guide along lines which recognize recent research into the reading process.

One early result of the literature review has been the inclusion in the ACER Catalogue of Professor Marie Clay's *A Diagnostic Survey*, which incorporates the 'print' test *Sand*. The Advisory Bulletin is intended for publication early in 1977 and the diagnostic guide and revised Individual Reading Test late in the same year.

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### **Test of Learning Ability (TOLA)**

H A H Rowe, J P Darmody

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(This project is included in the ACER Core Program. Mr Darmody is seconded from the Catholic Education Office in Melbourne.)

A new edition of the manual for TOLA 4 and TOLA 6 has been prepared. This manual contains 1975 NSW and some Victorian norms and replaces the interim manual.

Machine scorable versions of TOLA 4 and TOLA 6 have been prepared and tried out on a sample of 200 school children.

The results of pilot studies suggest that TOLA 6 is suitable for norming up to the age of fifteen years. The feasibility of norming TOLA 4 further is being assessed at present. The possibility of providing TOLA norms for the whole age range from eight years six months to fifteen years has sparked off considerable interest and enthusiasm amongst teachers and psychologists.

Work on a parallel form of TOLA 6 has commenced.

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### **Check Lists for School Beginners**

H A H Rowe, R W Davey

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(This project is included in the ACER Core Program.)

The final editions of the Check List for Teachers and the Check List for Parents are in the hands of the publishing department and will be generally available together with a Handbook for Teachers before the end of 1976. The Check List for Parents is available in English and in a number of other languages including Arabic, Greek, Italian, Maltese, Serbo Croatian, Spanish and Turkish.

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### **Early Screening Tests**

H A H Rowe

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(This project is included in the ACER Core Program.)

The trial editions of the following ACER Early Screening Tests have been available since late in 1975:

- Auditory Discrimination Test
- Recognition of Initial Consonants
- Figure Formation
- Number Test

Development of additional tests previously scheduled for the beginning of 1976 was delayed due to shortage of staff. The above four tests have been used experimentally during the year. A comprehension and a writing test to conclude the battery are in preparation. Standardization of the battery is planned for 1977.

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### **Group Non-verbal Tests of General Ability**

H A H Rowe, R H Hegarty

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(This project is included in the ACER Core Program.)

Some new items have been developed. Work on this project had to be suspended during the first half of 1976 but work has been resumed and the project is to be given a high priority during 1976-77. Trials of a short non-verbal test for Year 10 and above are planned during the first half of 1977

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### **General Ability Tests—General Review**

H A H Rowe

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(This project is included in the ACER Core Program.)

Some progress has been made in the assessment of processes (i.e. phases, stages, strategies, etc.) involved in critical thinking and problem-solving of highly intelligent individuals. A special study is being made of the task parameters during problem-solving activity.

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### **Wechsler Intelligence Scale for Children—Revised (WISC-R)**

H A H Rowe, R W Davey, R H Hegarty

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(This project is included in the ACER Core Program.)

A report concerned with the comparability of WISC and WISC-R has been prepared and will shortly be generally available on request. The report is based on the performance of a well balanced sample of 128 adolescents from Melbourne metropolitan secondary schools.

In a second study the performance of educable mentally retarded

twelve- to fifteen-year-olds on WISC and WISC-R was compared. A paper reporting the results of this study has also been prepared.

The results of both the above studies support overseas research findings recently reported.

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### **Career Education and Guidance Instruments**

R H Hegarty, H A H Rowe

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(These projects are included in the ACER Core Program.)

A short draft paper on career education has been prepared on major trends in overseas research and describing some current Australian materials. An indication is given of possible directions for future research and development to meet Australian needs.

A short inventory of personality and interest has been prepared and is being tried out amongst applicants for nursing training.

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### **Psychological Test Maintenance**

D Bradshaw, C Sigmont, J Jenkinson

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(This project is funded from ACER's income from sales.)

This project was begun in February 1976. A list of priorities was drawn up and it was decided that group tests of general ability at the higher levels should be given attention first. This decision was taken on a number of grounds. The tests now in use for which there is an extensive demand have been over-exposed, and norms and content are out-of-date. Since a large potential pool of items existed in the form of tests constructed over a period of 20 years and in most cases used on only one occasion, it was decided to construct new tests using this material and to update and restandardize the existing tests when the new tests were standardized.

In preparation for this all items from the available tests were classified and trial forms constructed. This proved very much more time consuming than anticipated, since a great deal of rewriting was required.

The project is proceeding in two phases. The first, involving tests approximating Advanced Test B40 and Advanced Test AL-AQ has reached final form stage; the second, providing a parallel to Higher Test ML-MQ is at trial stage. It is hoped that norming for the first phase can be carried out in March 1977. It has been decided to defer norming until that time because of the extreme difficulty encountered at trial stage in arranging for an adequate sample at tertiary level since participation by students in trial testing must be

on a voluntary basis. It is hoped that tertiary institutions will be able to arrange for incoming students to participate.

Standardization of the second phase tests will follow that of the first phase and it is hoped that the project will be completed and manuals written by the middle of 1977.

## **LIBRARY**

M A Findlay

(The Library and its services are funded partly from Annual Grants, and partly from sales and other income.)

Reference and information demands of the ACER research staff continue to occupy a substantial proportion of the time of the library staff. Effective communication with the users is maintained to ensure that the collection assists on-going ACER projects and that the service meets the changing information needs of the staff.

Constant effort is made to stay abreast of trends in computerized information retrieval. Retrospective literature searches are processed for ACER by the CSIRO Information Service through the bibliographic data bases of SDC and Lockheed networks in the United States. Contact with the National Library of Australia has been strengthened and ready access to their programs and future developments in the education information field is maintained. Regular current awareness searches are processed by the National Library on the ERIC (Educational Resources Information Centre) data base. ACER library and research staff participated in the National Library's On-line ERIC Project in which terminals in Sydney, Melbourne and Canberra had access to the ERIC data base and selected users conducted retrospective searches.

The library collection has continued to grow steadily during the period under review to a total of 13 000 titles. The increase in the Australian collection which includes all material indexed in the Australian Education Index reflects the pronounced rise in the number of Australian education publications published during the year.

A comprehensive revision of the serial collection is in progress to determine any changes necessary in acquisition and retention policies. A review of the usage and relevance of individual titles is being made with a view to transferring older material to microfilm to achieve economies in storing the collection.

Extensive use of the collection by other libraries and individual users has continued throughout the year, and loans to other libraries increased by 600 to a total of 2200.

The library continued to prepare the Australian Education Index which included entries this year for over 1800 items including monographs, research reports, conference papers, theses, periodical articles, parliamentary debates, newspaper articles, and book reviews.



Changes are being considered to extend the Index in order to cover the changing information needs of the Australian education community and to form an essential part in the proposed Australian Education Network.

## **ADVISORY SERVICES**

(The cost of Advisory Services is met entirely from ACER's income from sales.)

### **Psychological Advisory Services**

D M Bradshaw, J C Jenkinson

The functioning of psychological services has been somewhat complicated during the latter half of the period under review by the involvement of staff in test maintenance. The details of the project concerned with the updating of late adolescent and adult level group tests of general ability are dealt with separately. However, a great deal more of staff time has been invested than was at first anticipated and it has been even more difficult than in previous years to maintain an efficient service to meet the increasing number of requests for assistance.

The level of enquiries has been maintained and the number of psychologists and related professional workers seeking registration as test users has continued to rise. The number of persons seeking to have their qualifications as users accepted has increased from 383 for 1974-75 to 458 for 1975-76. The increase is partly due to specialist teachers graduating in courses in special education. This development has led to modification of policy relating to test use, to make provision for the training in the use of a variety of specific tests offered in such courses. It has become necessary to request details of the extent of training offered, and a formal approach has been made to the Australian Psychological Society for some form of assistance in assessing the courses concerned. It seems possible that the Society will agree to provide guidelines which should make the task easier.

The time spent in servicing individual enquiries has been reduced slightly, due largely to the acquisition of a number of references dealing with unpublished tests covering most areas of testing. This has reduced the amount of time formerly spent in journal searches, so that answers to enquiries by letter and telephone can be provided more quickly and visitors can be directed to the appropriate references to make their own searches.

On the other hand, advice has been sought more frequently by groups of psychologists planning large-scale projects. An example of

this is the Integration Project being conducted by Special Services Division of the Victorian Education Department where various members of the project staff have made frequent visits over a period of several months, involving both psychological services and test library staff in a substantial amount of preparation.

A number of groups visited us during the year to become familiar with ACER resources and to discuss testing problems. These included trainee guidance officers, special education groups from State colleges, and the staff of several Counselling, Guidance, and Clinical Services Centres. In addition, a workshop was conducted at a special education centre on the assessment of handicapped children. A collection of tests was provided and discussed with psychologists at the centre. A collection of personality tests was also displayed at a meeting of the Occupational Division of the Australian Psychological Society, held at ACER. A more comprehensive display of recent tests was prepared for the 11th Annual Conference of the Australian Psychological Society.

During the year staff have been involved in discussions with the Commonwealth Public Service Board and the South Australian Public Service Board on selection procedures, and by several government departments on assessment in differing contexts. Many overseas visitors have spent a substantial amount of time at ACER discussing testing problems in their own countries and seeking information and advice.

For the last six months each psychological test item due for re-printing has been checked and reviewed by psychological services staff. This has involved 28 items, some of which have been routine; others, mainly test manuals, have required rewriting and updating. The ACER Mechanical Reasoning Test has been redesigned to provide a better presentation than that of the existing format. Items have been redrawn and the layout improved. At the request of Australian psychologists working overseas, arrangements are being made for Arabic and Japanese editions.

Two issues of the *ACER Bulletin for Psychologists* have been completed. One has been circulated, the other is to go out in late September. Publicity leaflets covering a large number of NFER books\* have been written and sent to the libraries of tertiary institutions. Copy for a new edition of the psychological catalogue has been prepared. Circulation of this is planned for March 1977. Work on evaluation has been confined to the selection and examination of tests for possible addition to stock.

It does not seem likely that psychological services staff can continue to be involved in test maintenance to the extent that has been

\* National Foundation for Educational Research in England and Wales, with whom we have a reciprocal agreement

necessary this year if the previous level of advisory service is to be maintained.

### **Education Advisory Services**

P Jeffery, N McBean

The 1975 Annual General Meeting suggested an extension of educational services in particular directions. These recommendations have been implemented as far as possible although changes are by no means complete. To a large extent the changes have been made while maintaining most previous individualized services and without additional staff. Some of the suggested extensions have not been attempted: resources in staff were not available.

There has been a strenuous effort to extend knowledge about ACER. A considerable increase in the distribution of the *ACER Newsletter* has been achieved via bulk lots forwarded on by regional education offices, Teacher Centres, Colleges of Advanced Education, the State Institutes of Educational Research and similar co-operating bodies. Links have also been established with the editors of subject association journals so that a new series of 'research news' mailings which we have started can be published. Some editors have used some of the material sent so far and two journals have established regular sections to report on research.

Advisory Services Bulletin No. 1 *General Information about ACER* was completely re-designed and called the 'What is ACER' brochure. About 13 000 brochures were distributed to teachers at conferences and via co-operating staff of education faculties to graduating students this year. A similar number of *A Graded List of Tests and Materials* and *Publications Available from ACER* were distributed also. In future the *Educational Catalogue* will be distributed together with a general information leaflet of the 'What is ACER' type rather than preparing the *Graded list* and *Publications Available*. This is made possible by a revision in the nature of catalogues for use in the educational services area.

The *ACER Educational Catalogue* format and content were revised to take into account the need for very wide distribution. There is now a brief *Educational Catalogue* containing minimum information plus prices, which is designed to be produced and mailed cheaply. This catalogue is intended to be used in conjunction with test libraries, specimen sets of tests, and the *ACER Annotated Catalogue of Educational Tests and Materials* (in press) which contains very detailed descriptions of items. The Annotated Catalogue will be sold at a nominal price to libraries, teachers centres, etc. and for this service charge we will regularly up-date it. Fifteen thousand *Educational Catalogues* were distributed by mail to all schools or in bulk lots during the first half of 1976 and a reprint is in press.



During the year both the advisory officers have become closely involved in project work particularly in test development and maintenance. While this activity follows directly as a response to Council recommendations, the amount of time available to it is limited by other demands on staff time. A considerable amount of time and energy has gone into studying overseas tests and materials prior to their inclusion in ACER stocks, and into the writing of advisory leaflets or annotations to accompany the materials when distributed.

The senior advisory officer prepares copy of many information leaflets which are distributed via invoice orders, monthly statement mail or other means. A new series of 'New from ACER' and 'New from NFER' leaflets containing annotated descriptions of books is regularly mailed to librarians in all educational institutions including resource centres, teachers centres, and the like. All annotations are prepared by advisory staff so that our 'advertising' is descriptive and advisory rather than exhortative.

The materials evaluation activities of the section continued to be predominantly concerned with materials for which we are the publisher's agent. Most of the materials are evaluated for ACER by potential users, and we disseminate the results to those who, if the evaluation indicates the material would be useful, later use the material. The materials evaluation activities are part of the promotional activities of ACER. Information contained in review reports and made available via review sets from Advisory Services Library (test library) is valuable to teachers considering materials for adoption.

The materials evaluation system itself has attracted some professional attention in its own right and several workers interested in curriculum materials evaluation have visited ACER or have been in contact by mail.

The next step in the materials evaluation program is the production of critical summaries of the reviews which we have published and empirical verifications of the review guide. A number of requests for sets of 'review reports' for teachers centres and resource centres has been met although no publicity has been given to the existence of the reports.

Requests for loans from our test library have nearly doubled in the last three or four years. In accordance with general policy an increasing emphasis has been placed on advising and encouraging institutions to set up their own test libraries, with the result that a number has been established during the year.

To aid the teachers centres and other institutions who wish to establish test libraries we have created *ACER Mini-Library of Tests* in two versions (full collection of stock educational tests and stock reading tests) as packaged sets. Whilst all materials are charged for,



labour costs in preparing these sets are absorbed as an ACER contribution to the establishment, on a wider scale, of test libraries.

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## **DISTRIBUTION SERVICES**

E McIlroy

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Trading activities continued at a high level throughout the year and, excluding subscriptions to journals, the gross income from the sale of tests, books and materials amounted to \$1 072 800. This is the highest income recorded in any single year, exceeding that for 1974-75 by approximately 12.5 per cent and continuing the long-term trend of annual increases as shown by the following summary: \$508 000 (1971-72), \$606 000 (1972-73), \$690 000 (1973-74), \$954 000 (1974-75), \$1 073 000 (1975-76).

The net increase over 1974-75 is a composite of variable results in different areas with some major changes in the sales pattern. In broad terms the aggregate sales of tests and associated components of \$715 000 provided 66 per cent of the total sales income with 24 per cent derived from kits of educational materials amounting to \$256 000. Test income increased by \$158 000 and 28 per cent over the 1974-75 year following an increase of 24 per cent the previous year. By contrast sales of educational materials were reduced by \$53 000 to \$256 000 due to lower unit sales of the Programmed Reading Kit and the Individual Mathematics Programmes Kit B and Kit C, together with a reduction in the level of bulk departmental orders for the Western Australia Reading Development Scheme. In aggregate the income from the sale of ACER publications was \$351 000 (\$344 000 in 1974-75) compared with \$722 000 (\$610 000 in 1974-75) from non-ACER publications. Included in the latter figure is an amount of \$128 000 from items printed by ACER under licence from the original publisher.

To provide a comprehensive service we currently catalogue and hold stocks of 276 basic titles of tests and materials amounting to 1150 separate components.

In round figures 20 000 orders were received and supplied during the year. On a State basis sales were widely distributed throughout Australia in accordance with the following breakdown figures: NSW (\$340 000), Victoria (\$286 000), Queensland (\$122 000), South Australia (\$71 000), Western Australia (\$123 000), Tasmania (\$42 000) and the Australian Capital Territory (\$76 000). Sales outside Australia were limited to \$13 000. On an institutional basis sales to education departments of \$368 000 and \$133 000 to other State departments amounted to nearly 50 per cent of the total, with direct supply to schools of \$331 000 made up of \$173 000 to gov-

ernment primary schools, \$69 000 to government secondary schools, and \$89 000 to non-government schools covering all levels. The combined total of university and teacher education centre purchases amounted to \$147 000. There is a very wide variation in the ratio of departmental to direct school purchasing between the various States.

We now catalogue 215 book titles most of which are either ACER or NFER\* publications and as a matter of policy the selection of NFER items carried in stock was considerably expanded during the year. As in the test area, a limited number of titles provides a disproportionate percentage of the total sales with a large number of titles maintained on a service-to-clients basis only. Sales of 200-300 copies of the 1975-76 ACER publications including *Through a Rear Vision Mirror*, *School Leavers in Australia 1971-72*, *Primary School Mathematics in Australia*, *Study of Educational Achievement of Migrant Children (Summary Report)*, and *Nonverbal Behaviour—A Select Bibliography*, were achieved. During the year a change from the previous subscription basis for the *Australian Education Review* to a standing order basis was implemented with orders for some 600 charge copies now recorded.

The major additions to the stock range during the year included the two levels of the ACER Test of Learning Ability following the publication of the final Manual and release for general sale, and the additional 30 NFER titles referred to above. Due to the level of demand for special indent, both the adult and children's editions of the *Porch Index of Communicative Ability* published by Consulting Psychologists Press and the *Bayley Scale of Infant Development* from the Psychological Corporation were established as stock, and sole Australian distribution rights were also negotiated for the *Perceptual Skills Curriculum* materials and *Yardsticks* published by Walker Educational Publishing (USA) and Thomas Nelsons (UK) respectively.

The value of stock increased from \$171 300 in 1975 to \$187 400 at 30 June 1976. The level of stock in relation to demand however was effectively constant and equivalent to about 4 months sales; despite the small margin over the lead time for replacement a high degree of ex-stock availability was maintained during the year.

The operating and supply costs amounted to \$911 000 and included \$207 000 for salaries, \$43 000 for freight, \$40 000 for occupancy and overheads, \$16 000 royalties paid and \$12 000 advertising. The salary component includes charges for services provided by the accounts section and the total cost of the Publishing Division. A satisfactory rate of profit was achieved and after meeting the \$88 200 costs of Advisory Services a surplus of income over

\* National Foundation for Educational Research in England and Wales, for whom we act as agent

expenditure of \$161 800 was available to support other activities of ACER and provide for reserves.

## **PUBLISHING**

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### **Australian Journal of Education**

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Professor R L Debus and his editorial colleagues at the University of Sydney and elsewhere continue to edit the Australian Journal of Education for us on a voluntary basis, and ACER's indebtedness to them for the maintenance of the high standards the Journal has achieved remains very great.

The number of subscribers has dropped a little, and stands now at about 2300, of whom some 900 are members of the State Institutes for Educational Research. Several special drives were made during late 1975 and 1976 to increase the number of subscribers, but without much success.

Costs of the Journal continued to increase, and we must increase subscription rates if the Journal is not to run at a substantial loss.

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### **Australian Education Review**

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Reference has already been made to this publication (see page 24). Regular sales number about 600 at present, and we hope that these may be increased.

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### **Publishing Division Activities**

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D Maguire, A Kumm (to July 1976), P Jones

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As in previous years publishing activity was at a high level. Two areas were given more attention this year: extra time was devoted to the Division's part in the Council's advertising arrangements, and in so far as existing staffing would allow, attempts were made to assist in the Council's program of updating and improving the ACER publications held in stock.

Also, serious attempts were made to further reduce publishing costs. These included the seeking of more quotations from printers, typesetters and other suppliers even in the area of reprints, and investigations into new methods of production, similarly with a view to finding more economical techniques consistent with the maintenance of the quality of our productions.

In an attempt to reduce editorial and typing costs the *House Style Notes* are being revised. The *Notes* are being updated and instructions are being added on the requirements for documents produced In-House e.g. 'Typing for Reproduction'.



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## Books, Reports, Papers and Periodicals Published

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### (a) books and reports

*Through a Rear Vision Mirror: Change and Education. A Perspective of the Seventies from the Forties*, by R T Fitzgerald. (ACER Research Series No. 97).

*Nonverbal Behaviour: A Select Bibliography* by T Hore and N S Paget.

*Primary School Mathematics in Australia: Review and Forecast*. Editor Peter Jeffery.

*Participation in Schools? Five Case Studies*, by R T Fitzgerald, P W Musgrave and D W Pettit (ACER Research Series No. 98).

*Validity of Descriptions of Children's Behaviour: Final report*, by Richard C Bell and Isla M Stamp with a contribution by Susan J Bell.

*Study of the Educational Achievement of Migrant Children: Summary Report* by Marion M de Lemos.

*Study of the Educational Achievement of Migrant Children: Final Report* by Marion M de Lemos.

*Youth Needs and Public Policies*, by Alan F Wright and Freya Headlam. A report to the Victorian State Department of Youth, Sport and Recreation.

*The Australian Item Bank Program: A Planning Study*, by John Foyster with contributions from Peter Allanson and Virginia Carter.

### *IEA (Australia) Reports 1975*

1975:1 *The Effects of Schools on Achievement in Science*, by John M Owen.

1975:2 *The Effects of Schools in Victoria on the Science Achievement of Junior Secondary School Students*, by Alison F Wilson.

1975:3 *Concerning Leisure*, by U Ozolins and J P Keeves.

### *Victorian In-service Education Evaluation Project*

A joint ACER/Monash University, Faculty of Education project, published by the Victorian In-service Education Evaluation Committee and printed by Glenbervie Teachers Centre.

*Questionnaire to Teachers: Section of the Report*, prepared by Margaret Batten.

*Detailed Studies of In-Service Education Programs: Section of the Report*.

*School-based Teacher Development: Section of the Report*, prepared by Lawrence Ingvarson.

*Administration of In-service Education in Victoria: Section of the Report*, prepared by Lawrence Ingvarson, John Fyfield, and Margaret Batten.



### **(b) periodicals**

*Australian Education Review*

No. 5 *Finance for Education in Australia: Developments 1969-1975*,  
by Derrick Tomlinson.

No. 6 *Australian Perspectives on Lifelong Education*, by C Duke.  
*Australian Education Index*, compiled by Margaret A Findlay

Vol. 18 No. 3 September 1975.

Vol. 18 No. 4 November 1975.

Vol. 18 Cumulation.

Vol. 19 No. 1 May 1976.

Vol. 19 No. 2 July 1976.

*IEA (Australia) Newsletter*

No. 4 June 1976.

*Bulletin for Psychologists*, compiled by D M Bradshaw.

No. 21 January 1976.

*ACER Newsletter*

No. 25 October 1975.

No. 26 March 1976.

No. 27 June 1976.

### **(c) advisory services publications**

*A graded list of tests and material available from ACER.*

*What is ACER?*

*List of publications available from ACER.*

*Advisory Services Bulletin No. 8.*

### **(d) advertising materials**

*ACER Booklist*, two editions.

*ACER Primary Reading Survey Test: Brochure.*

*Yardsticks: Package Sleeve.*

*Educational Catalogue.*

*Non-verbal behaviour: a select bibliography: Brochure.*

*Psychological Price List.*

*Perceptual Skills Curriculum: Brochure.*

In addition a number of advertisements was placed in publications including *The National Times* and the *Australian Bookseller and Publisher*.

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## **Tests and Kits Published**

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### **(a) scholarship**

*Co-operative Scholarship Testing Program.*

### **(b) tertiary projects**

*Australian Scholastic Aptitude Test Series E. Books I and II and the Western Australian version.*

**(c) testing programs**

*NSW Primary Evaluation Programme*. Four new reading tests, Test R. *ACER Tests of Learning Ability*. Manual for TOLA 4 and TOLA 6. Rationale and Description. Directions for Use. Norms and Technical Details.

**(d) diagnostic/achievement tests**

*ACER Biology Diagnostic and Achievement Tests, Grade 11*; Tests and Aids D12 and DC3, Aids AD1, AC1, AA1, A11 and AL1.

*Class Achievement Test in Mathematics*; Test, Chart, Answer Strip Sheet and Manual.

*Tests of English for Migrant Students*. Artwork requirements and permissions arrangements were completed to allow publication by AGPS.

*Test of Perception of Scientists and Self*, by Richard T White and Lindsay D Mackay. Two tests booklets: Manual and Answer Sheets.

*Item Bank*: Test Items in Mathematics and Science and Teachers Manual.

*Test of Reasoning in Mathematics*. Revised edition of Interim Handbook.

**(e) survey tests and questionnaires**

*Parish Primary School Survey Tests* comprising Directions for Administration, four Questionnaires and six Test Booklets. The majority of the material was printed in machine-scorable form and the TOLA 4 and TOLA 6 Answer Sheets were designed (and printed in optical ink) to take advantage of the Uniscan system and to be available for long term usage on the TOLA program.

*Leisure Project*—questionnaires.

*Essential Learning about Society*—questionnaire survey.

*Science Facilities Project*—questionnaire.

**(f) vocational tests**

*Weber Advanced Spatial Perception Tests* published by arrangement with Department of Labor and Industry, NSW: Test 1 Form Recognition and Answer Booklet which includes Test 2 Pattern Perception, Test 3 Shape Analysis, and Test 4 Reflected Figures; Manual; Score Keys.

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**Tests Updated**

**(a) primary reading survey tests A-D**

Manual for Administration and Interpretation. Complete revision.

**(b) Franck drawing completion tests**

Manual. Complete revision.

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## Reprints

There were 237 separate reprints during the year including *Study of the Educational Achievement of Migrant Children: Final Report*, by Marion M de Lemos; *Reading Aids Through the Grades*, by David H Russell and Etta E Karp; *Testing for Student Selection at Tertiary Level*, by W McDonell; *Some Attitude Scales for Educational Research Purposes*, by J P Keeves (Home Environment and School Study Report Series 1974:2); *Study Type of Reading Exercises*, by Ruth Strang and *Listening Aids Through the Grades*, by David H Russell and Elizabeth F Russell.

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## Publications in Production

At the end of August 1976 there were in production four books, one periodical, four tests, and two Advisory Services publications.

### (a) books

*Reading Aids through the Grades* 2nd Revised Edition, by Anne Marie Mueser.

*Australian Reports on Education*, by Cecily Brown.

*Listening in the Primary School*, by T S Duff and M L Clark (ACER Research Series No. 99).

Additionally arrangements were being made to publish *Enquiry Learning in Social Studies*, by G J Whitehead (ACER Research Series No. 100).

### (b) periodicals

Australian Education Index Vol. 19 No. 3, September 1976.

### (c) Occasional Paper

No. 9 *Searching for Uncertainty*, by Kenneth N Ross.

### (d) tests

*ACER School Readiness Checklists*. Parents, Teachers and Manual.  
*ACER Paragraph Reading Test*.

*NSW Primary Evaluation Programme 1977*. Arrangements are being made to produce new materials, amend existing materials and provide plates or negatives for NSW Department of Education who will organize their own printing and distribution.

*ACER Number Cards*. Cards and Manual. This test was out of print for a number of years but is now being re-published in a more economical form.

### (e) advisory services and advertising

What is ACER? New edition.

New ACER Tests and Kits. Wall chart.

## **STAFF MATTERS**

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### **Director's Activities**

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I have found the increased range and volume of ACER activities has demanded more and more time and energy. Our failure to attract a suitable applicant to take over the position of Associate Director in charge of measurement and evaluation has inevitably meant that more responsibility has fallen on senior members of staff; but inevitably also some additional decision making has fallen to my lot.

I continued as a member of an advisory panel to the Commission on Advanced Education's study of teacher education, and participated in a discussion in Queensland, organized by the ERDC, on the Campbell et al report on 'Some Implications of the Radford Scheme for Queensland Schools, Teachers and Students'. I continued also as a member of the National Committee on Social Science Teaching and of the University of Melbourne Faculty of Education. Both have involved meetings away from ACER.

I have also accepted an invitation to chair for the ERDC a Study Group on National Assessment of Educational Progress, which is expected to report by April of next year. Its terms of reference require it to consider the desirability of such a national assessment and to provide at least an outline of what it might be expected to do and to cost.

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### **Scholarships, Fellowships and Overseas Consultancies**

#### **Scholarship to Survey Research Center, Michigan**

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Mr Ross returned to ACER in January last after a very profitable six months at Michigan. He has been intensively involved in sampling problems since he returned, and has used his experience and training at Michigan to good purpose.

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#### **Spencer Fellowship—Stockholm**

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Mr Rosier took up this pre-doctoral Fellowship in December last, and has had the opportunity at IEA headquarters there to do further, new, and revised analyses of the data on science achievement of 14-year-olds tested in 1970 and followed up in 1972.



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## **UNDP-UNESCO Project—Bangkok**

Mr Thomson's two month secondment with the UNDP-UNESCO project in Bangkok for the promotion of Science and Technology was a very successful one, although strenuous. His contribution to the project's work in evaluation in science was regarded as a very significant one. Regretfully, an arrangement for the secondment of some project staff to ACER for training purposes was cancelled because of a cut in the UNESCO budget for the project.

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## **South East Asia—Science Workshops**

Mr Ray Smith, one of our group of seconded staff, was invited to assist in the programs of SEAMEO-RECSAM in Penang, and at the University of the Philippines in Quezon City, by running seminars and workshops on the selection design and production of educational media.

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## **Appointments and Resignations**

A number of new appointments has been made during the year, and new secondments have been welcomed—some to replace members of staff who have left, others to fill new places usually of a temporary nature.

The Victorian Education Department generously seconded Mr G Cornish to help in the junior secondary mathematics project, Mr F Maas to help in the Item Bank Program, and Mr G Wilmot to help in the senior science (Physics) tests.

We welcomed also Mr J Darmody and later Dr L Bennett on the nomination of the Catholic Education Office in Victoria, to undertake the Catholic Parish Primary School Survey during 1976.

The Western Australian Education Department also made Mr B Parkin available to us for a brief period to help in the analysis of the data on Aboriginal children collected in the ASSP study.

We appointed to our permanent staff, to replace staff who had resigned, Mrs L Lees and Mr George Morgan, both in educational test development, Mrs V P Lloyd and Mrs M Pernat to the library, Mr B Handley and Mrs P Jones to the publishing staff, Mr S O'Neill to the distribution staff, Miss G Said to the office staff as switchboard operator, and Mrs B Crisp to the technical clerical staff.

I must record with great regret, but also with pleasure at the nature of his new appointment, the resignation of Dr M L Clark from his position as Associate Director in charge of Measurement

and Evaluation at the end of 1975, to take up duty as Assistant Vice-Principal—Research, at Churchlands College of Advanced Education in Perth. His 20 years of experience at ACER are not easy to replace.

A number of seconded staff returned to their parent education departments—Mr K Kee to Victoria, Mr S Sjoberg to Northern Territory, and Mr I Eiby to Queensland.

Other staff members whose short-term appointments ended during the year were Mr C Slee (IEA studies), Mrs J Kimpton (Essential Learning about Society), Miss H Mitchem (Psychological Tests), Mrs M Ayres (Curriculum), and Mr A Wright and Miss F Headlam (Poverty study).

Of the permanent staff, the resignations were accepted of Miss J Baldwin, Miss M Ryan and Mr J Foyster (Educational Test Development), Mrs D Whithear (Library), and Mrs A Kumm (Publishing).

There was a substantial reduction in the typing, clerical, and general service staff during the year. We lost the valuable help of Mrs T Wilson (Accounts), Mrs M Corfe (Clerical/Technical), Mr D Sewell (Publishing—Art), Miss C. Graafmans (Telephonist), and Mesdames M Longman, I Wiltshire, J Wright, E Krizos, and V King, from our typing and reproduction staff.

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## Lecturing and Other Commitments

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Several members of staff lecture in tertiary institutions.

Dr Keeves continued to conduct his seminar for the MEd degree at the University of Melbourne on educational environment and achievement in school.

Mr Thomson and Mr Ross conduct a course in Measurement and Evaluation in Education for the BEd degree at the University of Melbourne.

Mr Bourke has given a semester course on the Culture of the School, for Christ College, a college of advanced education.

Other important associations are:

Dr Keeves continues as a member of the Council of the Institute of Early Childhood Development in Melbourne, of the ACT Accrediting Agency (which has continued to meet monthly), and of the UNESCO Education Committee. He is one of the consultants of the CDC's Study Group on curriculum evaluation.

Dr Keeves has also made submissions to the House of Representatives Committee on Specific Learning Difficulties (in association with Mr Bourke) on literacy and numeracy in Australian schools, to the Victorian Curriculum Services Enquiry (also in conjunction with Mr Bourke) on literacy and numeracy in Victorian Schools, and to

the Victorian Committee on Equal Opportunity in Schools on the education of girls.

Mr Ross is a member of the CDC's mathematics study group.

Mrs Findlay is a member of the CDC's information study group.

Mr Thomson is a member of a Victorian In-service Education Committee, and of the Examinations Procedures and Research Subcommittee of the Victorian Universities and Schools Examination Board (VUSEB).

Mr Withers is a member of the State Innovations Committee and of the Consulting Panel for the Schools Commission Innovations Program.

Mrs Rowe is a member of the Test Advisory Committee of the New South Wales Department of Education, and of the Victorian Education Department's Steering Committee for its Early Childhood Development Study. Mrs Rowe is also a consultant to the Queensland Department of Education on the Pre-school Correspondence Program.

Mr Murray Cropley, one of our group of seconded staff members, is a member of the VUSEB Chemistry Standing Committee and a member of the Panel of Examiners in Higher School Certificate Chemistry in Victoria.

Mr Maguire represents ACER on the Australian Book Publishers Association, and Mr McIlroy represents ACER on the Booksellers Association.

Other commitments of value to our own activities as well as to the bodies involved have been:

Dr de Lemos has assisted in evaluating for accreditation the Diploma of Teaching (Early Childhood Development) for the State College of Victoria at Coburg, for which Mrs Larsen has been a consultant.

Mrs Larsen is also a member of a committee developing a course, at the Lincoln Institute, in Specific Learning Difficulties, and a member of the Evaluation Committee of the Eight-Variable Reading Study of the Victorian Education Department.

Mr Bourke, the project officer for the Australian Study of School Performance is a consultant to the Canberra Technical College on assessment of the skills of literacy and numeracy, and has been a member of the Working Party of the ACT Schools Accrediting Agency on assessing understanding and use of English of Year 12 students.

Mr Owen has been in 1976 the Acting Secretary of the Australian Science Teachers Association.

Mr Jeffery has played an active role in the Modern Teaching Methods Association.

Mrs Bradshaw is a member of the planning committee for an international conference on personality assessment to be held in Melbourne in December 1977.



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## **Further Studies**

Several members of staff have been enrolled for higher degrees, principally by thesis. It is a pleasure to report that during the year Mr Thomson, Mr Ross, Mr Tomlinson and Ms Wines were all advised that their theses had been accepted and that they had been awarded their Master's degree in Education. Mr Ross was awarded the Cohen Prize for his thesis. We were also pleased to learn that Mr R Lewis, who joined us for a one-year position early in 1976, was recently informed that his thesis for a degree of Doctor of Philosophy at Monash University had been accepted, and that the degree was to be awarded.

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## **Conferences and Seminars**

Staff members have as usual attended a number of conferences and seminars, many of them as representatives of ACER. The benefit is not only to them as individuals, but to the general breadth and quality of our work.

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## **Articles, Papers, etc.**

Articles have been contributed to and published in various journals and other periodicals.

More important, perhaps, have been the addresses given by staff members at a wide range of conferences and meetings—national, State and regional. These have included reports on our studies given to professional associations, more general talks on educational issues given to groups with more general interests, and seminars for post-graduate and other students.

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## **Overseas Travel**

Several members of staff have been abroad this year. Mr Rosier, as I have already reported, is at present in Stockholm. Mr Ross spent six months at the University of Michigan in 1975. Mr Withers and Dr Dabke (at their own expense) attended the IRA Conference in Singapore in August 1976, Dr Dabke travelled on recreation leave in Europe and America. Ms J Bryce visited England and Europe during her recreation leave in July and August and made a number of enquiries about music education, and Mrs P Larsen spent some time on leave without pay in Europe in July and August.



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## **Supplementary Superannuation Scheme**

After considering actuarial advice and various alternatives, it was decided by the Executive that each year the Statement of Accounts should show provision for Supplementary Superannuation Benefits to be paid in the following year.

The approved scheme has the following main characteristics:

- 1 It is available to those retiring from the Council's service between ages 60 and 65 who have had at least 10 years service with the Council and have been members of the present Staff Superannuation Scheme for at least that time.
- 2 It will pay a Supplementary Benefit which, if added to the notional annuity value of the proceeds at maturity of the policy in the present Staff Superannuation Scheme, will produce a retirement benefit, for those with 30 or more years service, of half the average annual salary of the last year of service. However, proportionately less will be paid to those with fewer years of service.
- 3 It is a non-contributory scheme.
- 4 It provides benefits to dependants.
- 5 It is terminable by 3 months notice by the Council.

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## **Long Service Leave**

During the year the conditions for long service leave were altered so that the qualifying period of service was 10 years rather than the 15 years under previous conditions: the provision remained at 1.3 weeks of leave for every year of service.

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## **Visitors**

We have had the pleasure of welcoming during the year a number of distinguished visitors, some for relatively brief periods, others for several days. Because European visitors are comparatively rare, I would like particularly to refer to the benefit we had from the visits of Torsten Husen, and Raymond Poinant.

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## **International Association for Educational Assessment**

The first regular meeting of the Association was held in Paris in May last, the principal theme being transition and admission to higher education.

We were not represented, but provided a paper on the Australian position prepared by Mr Tomlinson.

A formal constitution for the Association has been approved, entrance fees have been established, and a formal association with UNESCO as a non-governmental organization has been arranged.

Administrative arrangements are being handled through Educational Testing Service of USA. We have recently been asked to provide information about our activities, as part of a plan to set up a register of organizations which may act as consultants in assessment and other matters.

It is now possible for organizations and individuals to join the association and participate in one way or another in its activities. I propose therefore to let examining bodies, research branches, and others know of the Association and of its objectives.

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## **BUILDINGS AND ACCOMMODATION**

N J Gundry, C Noble, G Johnson

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We continue to occupy fully our own premises in the main office in Frederick Street, and the cottage at No. 20 Wakefield Street. The rented premises at 672 Glenferrie Road are held on two separate leases: one expires early in 1977, and the other in 1978. In both instances we are exempt at present from payment of rates, but when we vacate will be required to pay in retrospect for the previous three years rates.

Neither the rented premises nor the cottage are as satisfactory as we would like. The ideal situation would be to have all our activities under one roof, but at present that seems an impossible dream.

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## **FINANCE**

Accountant: P Staurenghi

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During the year \$20 000 was provided for Supplementary Super-annuation from general funds, \$25 036 was provided from sales income to raise the building reserve to \$90 000, and \$76 000 was provided also from sales income as a reserve for further research, development and test maintenance.

Total income in round terms was \$2 180 000 and total expenditure \$2 078 000 (in round terms). Income included annual grants from governments of \$423 000, fixed at the beginning of the year and not varied during the year to take into account any national wage or other adjustments, grants for specific projects of \$426 000, funds from services and contracts of \$199 000, and a sales income excluding royalties and journal subscriptions of \$1 068 000.

It is worth noting that our complimentary distribution of tests,

materials and reports over the year 1975-76 amounted to a retail value of more than \$8000, an amount we consider well justified.

The principal grants for specific projects included those for:

- the Australian study of school performance
- evaluation of the introduction of ASEP to schools
- preparation of tests for migrant students
- evaluation of the science facilities program
- the study of leisure and the schools
- the music evaluation project.

## **CONCLUSION**

It has been a full year, an uneasy year financially, and a year with several distressing features, already referred to.

There has been constant and increasing pressure on senior members of staff in particular: our failure to attract a suitable replacement for Dr Clark in our measurement area, and the reduction of our annual grant in terms of its purchasing power in qualified staff, have meant that more work falls on those who were already well committed. Some desirable jobs simply cannot be done; and to others we cannot give the full consideration and support that we would like.

I would like to express my appreciation to all those whose work load has increased over the last year and who have carried it cheerfully and efficiently, as well as to those others who have consistently given such cheerful, helpful, and well-qualified help to ACER's program and to their colleagues.

# **ACER Staff**

As at 30 September, 1976

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## **DIRECTOR**

W C Radford, AO, MBE, MA, MEd, PhD, LLD(Hon), FACE

## **ASSOCIATE DIRECTOR**

J P Keeves, BSc, MEd, PhD, fil dr (Stockholm), MACE

## **GENERAL RESEARCH AND CURRICULUM**

M M de Lemos, MSc, PhD, MAPsS

M J Rosier, BSc, MEd (study leave—overseas)

<sup>1</sup> J G Ainley, BSc, MEd, MACE

M Batten, BA, BEd

<sup>2</sup> L A Bennett, BSc(Hons), PhD (from 9.8.1976)

<sup>3</sup> S F Bourke, BSc, BA, LittB, MACE

J Clancy, BA, (from 2.2.1976)

<sup>2</sup> J Darmody, BSc, MEd, MAPsS, MACE (from 9.2.1976)

<sup>1</sup> D W Fox, BA(Hons), BEd

P Larsen, BA, TPTC, TITC (part-time)

R Lewis, BSc, BEd, PhD (from 5.1.1976)

J K Matthews, BA, DipEd (part-time)

<sup>1</sup> J M Owen, BSc(Hons), MEd, MAIP

K Piper, BA(Hons), DipEd

K N Ross, BSc, MEd

D Tomlinson, BA, MEd

## **TEST RESEARCH, DEVELOPMENT, AND SERVICE**

W T Renehan, BA, BEd, MAPsS

P Thomson, BSc, MEd, MACE

<sup>4</sup> P L Allanson, BEd

J Bryce, BA, BEd

V Carter, BSc, DipT (from 29.10.1975)

<sup>1</sup> Seconded from Melbourne State College

<sup>2</sup> Seconded from Catholic Education Office in Victoria

<sup>3</sup> Seconded from Department of Defence

<sup>4</sup> Seconded from Education Department, Western Australia



<sup>5</sup> G Cornish, BSc, DipEd (from 19.1.1976)  
<sup>5</sup> M Cropley, BSc, BEd, TSTC  
R W Davey, BA  
B E Hay, BA(Hons) (part-time)  
R H Hegarty, BA  
B Johnson, BA, BEd  
<sup>5</sup> M Lee, BA, BSc, TTC  
L Lees, BA, DipEd (from 24.5.1976)  
<sup>5</sup> F Maas, BEc, BEd  
G Morgan, BSc(Hons), DipEd, MSc (from 19.7.1976)  
H A H Rowe, BA(Hons), MAPsS  
C Sigmont, BS(Psych) (from 16.2.1976)  
E Watson, BA  
<sup>5</sup> G C Wilmot, MSc, DipEd (part-time)  
R Wines, BSc, MEd  
G P Withers, BA, ACTT  
R I Dabke, Staatsexamen, DrPhil, DipEd  
J Emmins, BA(Hons)  
E Hoare, BA, BEd, TPTC  
O C Lademann, BA, DipEd

## **ADVISORY SERVICES**

### **Educational**

P Jeffery, BA, TPTC, BEd, MACE  
N McBean, BA, DipEd

### **Psychological**

D M Bradshaw, BA, DipEd, MAPsS  
J C Jenkinson, BA, MAPsS, (part-time)

### **Test Library and Reference Materials**

P Burns (part-time)  
G Dobell (part-time)

## **LIBRARY**

M Findlay, ALAA  
V Lloyd, PhC, MPS, ALAA (from 10.5.1976)  
M Pernat, BA, ALAA (part-time) (from 13.10.1975)  
L Psiliakos, ALAA (part-time) (from 10.5.1976)  
A Hylands  
B J Segar (part-time)

## **SENIOR ADMINISTRATIVE OFFICER**

N J Gundry, AASA, AFAIM

<sup>5</sup> Seconded from Education Department, Victoria

## **PUBLISHING**

D Maguire, HNC

P Jones, BA(Hons), DipHistArt (from 13.9.1976)

B F Handley (part-time) (from 1.3.1976)

<sup>5</sup> R F Smith, DipAdvtArt, TTCMA

E Scott

## **ACCOUNTANCY**

P Staurengi, BA, BCom

P L Arnold (part-time)

M Crisp

M Young

## **ADMINISTRATION SERVICES**

C R Noble

G Johnson

M Palmer

## **SALES AND DISTRIBUTION**

E P McIlroy

M E Clarke

S Dymond

M Engellenner (part-time)

B Fulton

P Gale

J Grace

J Harding

I Miller

R M Muir

S O'Neill (from 15.1.1976)

J E Prior

A Wilkins

J Wilson

## **SECRETARIES TO DIRECTORS**

K A Saunders

M Balloch

<sup>5</sup> Seconded from Education Department, Victoria

## **GENERAL SECRETARIAL AND OFFICE SERVICES**

A D Cooke  
J Abbott  
Y Allen (part-time)  
B Anderson  
W Boyce (part-time)  
J Clark  
O Cowan (part-time)  
D Parry  
B Raiola  
J Ramus  
G Said (from 6.9.1976)  
D Stephen  
M D Webb (part-time)  
I Wiseman (part-time)

## **CLERICAL AND TECHNICAL ASSISTANTS**

C Bayley  
E D Cooper (part-time)  
B Crisp (from 8.6.1976) (part-time)  
M Peel

## **Contributors to Council Funds**

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The Council acknowledges, with thanks, the following contributions received during the financial year ending 30 June, 1976:

### **Australian Governments: General Grants for Research**

Commonwealth	\$211 500
New South Wales	80 645
Victoria	58 374
Queensland	31 006
South Australia	18 908
Western Australia	15 228
Tasmania	7 318
	<hr/>
	\$422 979
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### **Special Grants**

Grants to specific projects made by:

The Commonwealth Departments of Education, and Environment,  
Housing and Community Development

The Curriculum Development Centre

The Schools Commission

The Victorian In-service Education Committee, Victoria

The Victorian Departments of Youth, Sport and Recreation, and  
Education



# State Institutes for Educational Research

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## Nature and Function

The State Institutes are autonomous bodies, each nominating one representative to the governing body of The Australian Council for Educational Research, and co-operating closely with it when occasion requires. In 1956, at a meeting held in Melbourne, these representatives formulated the following statement of the nature and functions of an Institute. In general, as the reports printed later will show, they carry out the functions in different ways and with different emphases.

The object of the Institute is to act as a learned body devoted to the promotion of study and research in education, emphasizing the scientific study of educational problems, by means of the following activities:

- A Disseminating
  - (i) research, either
    - (a) the results of specific pieces of research done by members; or
    - (b) reports on the collection of research information;
  - (ii) opinion and accounts of practice in education.
- B Participating in
  - (i) the discussion, planning, and criticism of research projects,
  - (ii) the active carrying out of research projects.
- C Establishing areas of contact with other educational groups.'

## Membership on Council of ACER

The term of office of an Institute representative on the Council of the ACER is four years, and the dates of appointment are arranged to provide a continuity of membership of the Council.

## NEW SOUTH WALES

### New South Wales Institute

#### Office Bearers:

*Patron:* Sir Harold Wyndham

*President:* Mr L Whiteman

*Vice-Presidents:* Dr D Thew, Dr J Sheppard, Dr K Sinclair

*Hon. Secretary:* Ms J Cust

*Hon. Treasurer:* Mr D Thew (Mr D Kerr acting during Mr Thew's absence)

*Librarian/Research Officer:* Mr R Catts

*Delegate to ACER:* Associate Professor R Debus

*Alternate Delegate:* Professor J A Keats

*Assistant Editor, Australian Journal of Education:* Dr J L Sheppard

*Additional Committee Members:* Mr J Shellard, Dr L Higgins

## **Meetings**

Since the Annual General Meeting on 21 November, 1975, the Executive Committee has met six times, in the months of February, April, May, June, August and September. A final Executive Committee meeting will be held on 19 November, 1976. The Executive Committee planned the following eight General Meetings around the theme of 'Innovations: Research and Evaluation'.

April 1976. Professor J Thomas Hastings, University of Illinois: 'Innovation, Transferability, and Evaluation: The Why of the Failures'.

May 1976. Professor Ulf Lundgren, Teachers College Stockholm: 'Educational Planning and Research in Sweden'.

June 1976. Dr Bernie Thorley: 'Building an Education Program for Down's Syndrome Children, 0-5 years: Reflections on one year's Experience of Flexible Development of a Program'.

July 1976. Dr K McKinnon, Schools Commission: 'Innovations: Research and Evaluation'.

August 1976. Mr Colin Flood Page, Bradford University: 'Innovations in Evaluation: Implications for Educators'.

September 1976. Dr M Skilbeck, Curriculum Development Centre: 'Developing a Program for Curriculum Renewal for Lower Secondary Education in Australia'.

October 1976. Mr R Phillips: 'The Pace Project Revisited'.

November 1976. Dr R Straton: 'Evaluating Educational Innovations: Retrospect and Prospect'. Annual General Meeting.

## **Alteration to Constitution**

At the Annual General Meeting held on 21 November, 1975, the following amendment to the Constitution was carried. 'On the Executive Committee's recommendation presented at the Annual General Meeting, the Institute may confer Honorary Life Membership on a member who has displayed outstanding qualities of service and leadership to the Institute.'

## **Membership**

There are 169 financial members of the Institute, 41 of this number being members of the Newcastle Branch.

The death of Professor C R McRae was noted with regret during the year. His years of service to the Institute, more recently as one of its two patrons, are remembered with deep appreciation.

### **NSWIER Bulletin**

The *Bulletin of Proceedings* in 1975, edited by Mr J Shellard, was made available to members earlier in the year.

### **Acknowledgment**

The Institute members express their appreciation to Dr R Rawlinson, Principal of Alexander Mackie College of Advanced Education, for making the College facilities and services available for meetings throughout the year.

### **Newcastle Branch**

#### **Office Bearers:**

*President:* Professor K Collis

*Vice-Presidents:* Dr D Keats, Professor J Biggs, Mr J Foster

*Hon. Secretary:* Mr K Morgan

*Hon. Treasurer:* Mr L Pennington

*Librarian/Research Officer:* Mr R Milne

*Committee Members:* Professor J Keats, Mr J McIvor, Mr E Manning, Dr R Rowe

#### **Meetings**

October 1975. Dr D Keats (Presidential Address): 'Cultural Biases in Educational Research'.

November, 1975. Mr J Rees: 'School Climate'.

March 1976. Mr A Smith: 'Item Banking and Individual Difference Testing'.

April 1976. Mr P Moore: 'The Reading and Spelling Attainments of Children who use "Words in Colour" in year Two'; Mr R Hinten: 'An Evaluation of Two Reading Schemes'; Mr H White: 'Teacher Classification of Higher School Certificate Examination' (Chemistry section); Mr S Johnson: 'Sex Knowledge of Adolescents'.

June 1976. Professor M Carter: 'Sociological Aspects of the Transition from School to Work'.

August 1976. Dr V O'Byrne: 'A Discussion of Some Directions which Research into Language Might Take, and Some Problems and Difficulties'.

October 1976. Dr E Richardson: 'The Transition from School to Work and Further Education'.

November, 1976. Professor K Collis: Presidential Address.

## **Acknowledgment**

Newcastle Branch members express their thanks to Dr E Richardson, Principal of Newcastle College of Advanced Education, for continued use of College facilities and services.

## **VICTORIA**

### **Office Bearers:**

*President:* Dr L W Shears

*Vice-Presidents:* Dr G Allen, Professor R Tisher

*Hon. Secretary:* Mr A J P Natrass

*Hon. Assistant Secretary:* Mr K Hall

*Hon. Treasurer:* Mr F Hindley

*Executive Members:* Dr G J Whitehead, Dr J Russell, Miss I Palmer, Dr R G Rowlands, Mr H Hobbs, Miss A Ridsdale, Mr G Bradshaw

*P.E.T. Group Representative:* Mr T Holland

*Editor:* Mr M Boyce

### **Meetings**

April 1976. Dr J P Keeves and Mr S F Bourke: 'Literacy and Numeracy in Australian Schools'. Annual Meeting.

June 1976. Frank Tate Memorial Lecture. Dr M Skilbeck: 'School-based Curriculum Development—Tasks for Teachers'.

August 1976. John Smyth Memorial Lecture. Professor R M Gagné: 'Learning Processes and Instruction'.

September 1976. Professor Philip Lawrence: 'Directions in Educational Development'.

October 1976. Professor Phillip Williams: 'The Future of External Studies—Lessons for Victoria'; Responses by Dr G Allen and Dr F Jevons.

26-28 October 1976. Sixteenth Primary Education Today lecture series: 'Literacy—Illiteracy—The Great Debate'—Mr Race Mathews, Professor Brian Start, Miss Angela Ridsdale.

### **G S Browne Prizes**

No awards.

### **VIER Bulletin**

Bulletins numbered 36 and 37 are being published in 1976.



## **Groups of the Institute**

With the exception of the Regional Groups these have conducted activity programs. Due to the existence of extensive in-service facilities from other sources the support for Regional Groups has continued to decline. All Regional Groups have been officially 'wound up' during 1976.

## **Financial Membership**

As at closure of list for 1976 there were 344 members.

## **QUEENSLAND**

### **Office Bearers:**

*Patron:* Mr W Wood

*President:* Professor B Watts

*Vice-Presidents:* Mr W L Hamilton, Mr A W Jackson, Mrs D Muir

*Hon. Secretary:* Mr R Wilkes

*Hon. Treasurer:* Mr B Cameron

*Executive:* Mr N Anderson, Miss J Bedford, Miss N Beer, Mr N Alford, Mr R Warry, Mr P Varley

*Representative to ACER:* Dr S Rayner

*Hon. Auditor:* Mr C E Anstey

### **Meetings**

February 1976. Dr Bernard Cox (Senior Lecturer in Education, University of Queensland): 'Using Content Analysis to Aid Curriculum Development'.

3 & 4 March 1976. Professor Joan Kirkpatrick (Professor of Elementary Education, University of Alberta): 'Issues in Primary Mathematics' and 'Problem Solving in Primary Mathematics'. A lecture and workshop series organized jointly by QIER and Queensland Association of Mathematics Teachers.

March 1976. Professor Tom Good (University of Missouri): 'Some Implications of Classroom Research for the Classroom'.

April 1976. Professor Tom Hastings (University of Illinois): 'The Evaluation of Innovations—Some Problems and Issues'.

June 1976. Dr Colin Power (Senior Lecturer in Education, University of Queensland): 'Some Implications of Research for Teaching in Individualised Classrooms'.

### **Membership**

In October 1976 there were 189 members.

## **SOUTH AUSTRALIA and TASMANIA**

The South Australian and Tasmanian Institutes held no public meetings and engaged in no other activities during 1976.

Their nominees to the Council were

South Australia: Mr R S Coggins

Tasmania: Mr N Behrens

## **WESTERN AUSTRALIA**

### **Office Bearers:**

*Patron:* Dr D Mossenson

*President:* Mr J J Liddelow

*Vice-President:* Mr M J Angus

*Hon. Secretary/Treasurer:* Dr M L Clark

*Committee Members:* Mr B J Haines, Dr J Lake, Mr R G Lamb

### **Meetings**

October 1975. Mr T Beck (Senior Research Officer, Research Branch, WA Education Department): 'The Changing Role of Home and School—How Far do We Want to Go?'

November 1975. Mr R G Lamb (Senior Lecturer-in-charge, Department of Mathematics and Science, Mount Lawley College): 'What Sort of People Become Teachers?'

March 1976. Annual General Meeting (Mr R G Peter in the chair), Mr G Morse (Lecturer in Art Education, Mount Lawley College): 'Art as a Process—Recent Interpretations of the Aesthetic/Creative Process and Some Implications for General Education'.

June 1976. Dr F Coulter (Senior Lecturer, University of WA), Dr M Collins (Vice-Principal, Mount Lawley College) and Dr C Goodridge (Research Branch, WA Education Department): 'The Effectiveness of Teacher Education Programs'.

August 1976. Mr M Angus (Superintendent, Research Branch, WA Education Department), Professor B McGaw (Murdoch University) and Dr A Ryan (Research Branch, WA Education Department): Seminar—'Evaluation of the Schools Commission's Innovations Program in WA'.

### **Publications**

*Issues in Educational Research*, No. 1, July 1976: 'Evaluation of Educational Innovations'.

*WAIER Newsletter*, No. 1, August 1976.

### **R G Cameron Prize in Education**

This prize, sponsored by the WAIER, was awarded in 1975 by the University of Western Australia, Faculty of Education, to Mr J V Plumridge.

### **WAIER Prizes**

The WAIER Prizes were awarded in 1975-76 to: Miss Deborah Rees of Churchlands College; Mrs Lynne Trower of Claremont College; Ms Fiona Williamson of Graylands College; Mr A Asplin of Mount Lawley College; and Mrs Penelope Rogers of WA Secondary Teachers College.

### **Membership**

Membership in 1976 shows a net gain of 32 over the 1975 figure (41 new members and 9 resignations) giving a total of 134, of whom 112 were financial members, as at 21 September 1976. Approximately 45 per cent of the membership is employed at advanced colleges, about 20 per cent at the universities and WAIT, another 20 per cent within branches of the WA Education Department, and about 15 per cent is made up of school principals and teachers. Seventy-five members subscribe to the *Australian Journal of Education*.