

Australian Council for Educational Research

fifty-second annual report

81-82



fifty-second
ANNUAL REPORT
1981-82



The Australian Council for Educational Research Limited
Radford House, Frederick Street, Hawthorn, Victoria 3122

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Dr S. A. Rayner

Appreciation: Dr S.A. Rayner

Dr S.A. Rayner first came to the ACER on secondment from the Queensland Department of Education at the beginning of 1947 and he stayed for two years. During this period he kept a diary, from which Professor W.F. Connell used extracts in his history, *The Australian Council for Educational Research 1930-80*, to record the varied and challenging range of activities undertaken by a research assistant during his secondment. His period of internship led to the publication of a book on *Correspondence Education*, and the development of the intelligence test *Intermediate D* which has sold over 2 million copies and is still selling well after more than 30 years because of its high predictive power with respect to school achievement.

On returning to Queensland, Sam Rayner became very active in the Queensland Institute for Educational Research. In 1965 he was elected by the Institute to the ACER Council, and in 1969 was elected a member of the Executive Committee. On the retirement of Professor P.H. Partridge in 1973 he was appointed President of the ACER and he held this position through six difficult years until 1979. After retiring from the presidency, he remained on the Executive until 1981 and retired from the Council in 1982.

He brought to the position of President an excellent knowledge of administrative procedures, which he used to help to make better provision for long-serving staff on retirement, to ensure that essential procedures for the sound conduct of a growing business concern were maintained, and above all to lift the quality of research and the productivity of the staff of the Council. His years in office were not easy ones, being beset by rapid inflation and a reduction in the resources available for research and development in education in Australia. Nevertheless, during this period the ACER maintained its strength and was able to build a new wing to accommodate the growing number of staff.

On his retirement from the Council of the ACER after 35 years of close association with its work, we acknowledge with gratitude his years of outstanding service and thank him for his contribution to educational research in Australia through his leadership and support for the work of the Australian Council for Educational Research.

Members of Council for 1981-82

PRESIDENT

- *Emeritus Professor P.H. Karmel, AC, CBE, BA (Melb.),
PhD (Cantab.), PhD (Adel.), Hon LLD (PNG), Hon DLitt (Flin.), Hon
LLD (Melb.), Hon DLit (Murd.), DUniv (Newcastle, NSW), FASSA,
FACE
Chairman, Commonwealth Tertiary Education Commission, Canberra,
Australian Capital Territory

VICE-PRESIDENTS

- *Professor D. Spearritt, MA, MEd (Qld), EdD (Harv.), FASSA
Professor of Education, Department of Education, University of Sydney,
Sydney, New South Wales
- *G.A. Ramsey, BSc, DipEd (Adel.), PhD (Ohio State), FACE
Principal, South Australian College of Advanced Education, Adelaide, South
Australia

CO-OPTED MEMBERS

- L.D. Blazely, BSc (Tas.), MEd (Melb.)
Superintendent of Research, Education Department, Hobart, Tasmania
- Daphne M. Keats, BA (Syd.), MEd, PhD (Qld), DipEd (Syd.), FAPsS
Associate Professor of Psychology, Department of Psychology, University of
Newcastle, Newcastle, New South Wales
- *Professor B. McGaw, BSc, BEd (Qld), MEd, PhD (Ill.), FACE, MAPsS
Dean, School of Education, Murdoch University, Perth, Western Australia
- Associate Professor Millicent Poole, CE, BA, BEd (Qld), MA (UNE),
PhD (La T)
Associate Professor in Education, School of Education, Macquarie University,
North Ryde, New South Wales
- S.A. Rayner, MA (Qld), MEd (Melb.), EdD (Ill.), FACE
Registrar, University of Queensland, St Lucia, Queensland
- R.B. Winder, BA (Syd.), MACE
Assistant Director-General, Department of Education, Sydney, New South
Wales

MEMBERS APPOINTED BY THE STATE INSTITUTES OF EDUCATIONAL RESEARCH

New South Wales

- Associate Professor R.L. Debus, BA, DipEd (Syd.), PhD (Ill.), FACE
Associate Professor of Education, Department of Education, University of
Sydney, Sydney, New South Wales

Victoria

- G.J. Whitehead, TPTC (Burwood TC), BCom, MEd (Melb.), PhD (La T)
Assistant Director, Special Services Division (Curriculum Services),
Education Department, Melbourne, Victoria

*Member of Executive Committee

Queensland

N.D. Alford, BA, MEd(Qld), FACE

Executive Officer, Board of Advanced Education, Brisbane, Queensland

South Australia

B.J. Webber, BSc(Hons), DipEd, DipT(Adel.), MSc(Mich.),
PhD(Florida State)

Deputy Headmaster, The Collegiate School of Saint Peter, Adelaide, South Australia

Western Australia

M.L. Clark, BA, BEd(Hons), PhD(W.Aust.), FAPsS, FACE, AFAIM

Assistant Dean (Research, Planning, and Computing Services), Western Australian College of Advanced Education, Churchlands Campus, Churchlands, Western Australia

Tasmania

Professor P.W. Hughes, BSc, MSc(Oxon.), PhD(UNE), FACE

Head of Department of Teacher Education, Centre for Education, University of Tasmania, Hobart, Tasmania

Northern Territory

N. Bowman, BA, MEd(Melb.), PhD(Ill.), MACE

Director of Research, Education Department, Darwin, Northern Territory

MEMBER APPOINTED BY THE NEWCASTLE BRANCH OF THE NEW SOUTH WALES INSTITUTE OF EDUCATIONAL RESEARCH

New South Wales — Newcastle Branch

Professor J.A. Keats, BSc(Adel.), BA(Melb.), AM, PhD(Princeton),
FBPsS, FAPsS, FASSA

Professor of Psychology, Department of Psychology, University of Newcastle, Newcastle, New South Wales

OFFICIAL REPRESENTATIVES

Directors-General of Education

J.R. Steinle, MA(Lond.), DipEd, DipT(Prim.), FACE

Director-General of Education, Adelaide, South Australia

Commonwealth Department of Education

B.C. Milligan, BA(Hons)(Syd.), DipEd(UNE), MA(ANU), MACE

Assistant Secretary, Education Planning Group, Commonwealth Department of Education, Canberra, Australian Capital Territory

STAFF REPRESENTATIVE

K.J. Piper, BA(Hons), DipEd(Syd.), MEd(Melb.)

DIRECTOR

*J.P. Keeves, BSc(Adel.), DipEd(Oxon.), MEd(Melb.), PhD(ANU), fil
dr(Stockholm), FACE, FASSA

Annual Report of the Director

Presented at the Annual Meeting of the Council on Friday 3 September 1982
This report covers the period 1 July 1981 to 30 June 1982.

INTRODUCTION

Dissemination of Research

An educational research institution must serve the community that supports it. As a consequence the research institution must establish a two-way communication with that community, which in the ACER's case comprises all those concerned with education within Australia and, in particular, those involved in the provision of primary and secondary education. The ACER must set up linkages that will enable it to disseminate to the community the findings of the research that it undertakes and also to receive back from the community ideas and issues that will help to guide its program of research, development, and service.

Several years ago, with awareness of the importance of such linkages to the ACER, we commenced a strand of research into the processes of dissemination and diffusion in education. While it has not always been possible to maintain studies in this area, sufficient of the work undertaken or sponsored by the ACER has been completed for a clear understanding of the processes to have developed. The work of Dr J.M. Owen at the ACER into the adoption and implementation of the Australian Science Education Project materials in Australian secondary schools has been a major contribution. Subsequent studies by Owen and his colleagues at Melbourne State College into the impact of *set — Research Information for Teachers* in Australian schools and colleges have extended our understanding. Another investigation, which has been undertaken at the ACER by Mr P.L. Jeffery, has examined the relative importance of sources of information used by teachers, and has shown that, in general, the informal methods of dissemination involving interpersonal contacts are the most important.

From these studies, we have been able to confirm that the processes in operation are those described by R.G. Havelock in his account of the linkages established between research institutions forming a resource system and the users of educational research. A key role is played in this process by linkage agents and the other components of what Havelock describes as the linkage medium. The interaction between the research workers and the users, that Havelock has proposed, may be considered from at least three perspectives: (1) a linear operation of research, development, and diffusion; (2) the transmission of ideas by social interaction; and (3) the active seeking of solutions to problems by the users with help from research workers. The research that has been undertaken in Australia confirms the relevance of these three perspectives according to the circumstances and the linkages between the research system and the users. As more work is undertaken, we are

hopeful that the conditions associated with the optimal use of the different linkage processes will be identified.

It is clear that there is no single method or procedure which alone could be used to carry out the two-way diffusion of useful knowledge in education. Rather it would seem there are many approaches that should be used, each in appropriate circumstances. Six different strategies of dissemination and diffusion can be identified and it has been suggested that they lie along a continuum from the research, development, and diffusion orientation at one end to a problem-solving orientation at the other. It is of value to describe each strategy briefly and to consider the extent to which the ACER employs the strategy in its linkages with the users of educational research.

Program of Publication

The ACER has built up an educationally sound and financially viable publication program over the years. In 1981-82, we have achieved perhaps the highest level of publication of the products of research for a long period, with 12 reports and reviews and 12 different tests published. In addition, the ACER has assumed greater responsibility for the production of the *Australian Journal of Education* in its new format.

Indexing and Abstracting Service

The ACER undertakes, with some assistance from the Technical and Further Education Research and Development Centre in South Australia, the compilation of the *Australian Education Index*. The index is incorporated into the AUSINET computerized information system and hard copy has been provided in a greatly improved format during 1982. In addition, during the past year, the ACER library have been working on the preparation of an Australian Education Thesaurus and a compilation of theses submitted on educational subjects to Australian universities during 1980. It is hoped that this listing of theses will take place annually.

Research and Development Information Exchanges

The diffuseness of much of the reporting in the field of educational research makes it difficult for individual users to select, directly from the publications available or through an abstracting service, the more general ideas that could influence their thinking on certain issues or that could assist in the solving of particular problems. The ACER in several ways is attempting to provide information in summary and review form. The *ACER Newsletter* summarizes the findings of research undertaken or sponsored by the ACER. The *ACER Bulletin for Psychologists* reports information on psychological tests and on recent publications in the field of psychological measurement and is distributed to all psychologists on the ACER register. *set* is a collection of 15 articles, written in a journalistic style, that review research in a particular area or report the findings of a particular study. This collection of articles is published jointly by the ACER and its counterpart in New Zealand, the New Zealand Council for Educational Research. The *Australian Education Review* is

issued irregularly, hopefully three times per year, as a publication which provides in 15 000 to 30 000 words a review of an aspect of Australian education derived from and built around research conducted in Australia and elsewhere. The ACER Annotated Catalogue is a published compendium of educational materials and tests that are available on sale from the ACER. This catalogue is reissued every three years and updated entries are provided to subscribers annually. In these ways the ACER seeks to provide information on education to all schools and colleges across Australia.

Research and Development Networks

An exchange of information takes place in ways other than those provided by printed documents. There is increasingly a need for the establishment of networks, built around social interaction, that serve four functions: (1) to select, synthesize, and interpret the findings of educational research for practitioners in the schools and for policy makers; (2) to provide information to consumers on products in the field of education, together with evidence of their effectiveness; (3) through discussion and debate to communicate the needs of practitioners and policy makers to researchers; and (4) to collect information on the experiences of practitioners and to add this to the growing body of knowledge about the educational process. Since its establishment the ACER has operated with such networks in the form of the State Institutes of Educational Research. Deliberate efforts have been made in recent years to strengthen the links between the ACER and the State Institutes, since it is recognized that the work of the ACER can be greatly enhanced by two-way interaction with the Institutes. A turning point was perhaps the planning and the participation of the State Institutes in the events that marked the fiftieth anniversary of the establishment of the ACER. Since that time an Institute has been set up in the Northern Territory, the Newcastle Branch has received more formal recognition, the Institutes in South Australia and Tasmania have been re-established, and consideration is being given to the formation of an Institute in the Australian Capital Territory. Moreover, visits of ACER staff to conduct meetings and workshops for the Institutes have been greatly increased and the State Institute representatives to the ACER Council have had a stronger voice in the affairs of the Council. Thus the State Institutes provide a strong link between the research institution and the users of research, which not only enables the ACER to disseminate the findings and products of its program of research and development more effectively, but also enables the ACER to respond more directly to the problems and issues for research that are seen to be needed by educational practitioners. Other important networks exist; some have existed for 20 or more years, such as the Australian Science Teachers Association and the Australian College of Education. In different ways and at different stages in their existence, the ACER has maintained close and supportive links with these networks, primarily to assist in the dissemination of information about education across Australia.

Research and Development Utilization Centres

The past eight years have seen in Australia the establishment and growth of a range of centres and units that are directed towards problem-solving activities. These centres seek: (1) to develop the problem-solving capabilities of those in contact with them; (2) to supply appropriate research and development resources; (3) to stimulate awareness of the existence of problems, and (4) to facilitate the meeting of other conditions and circumstances that are necessary for change. Within Victoria, it is easier for ACER staff to visit and maintain some contact with such centres. However there are now so many centres scattered across Australia, together with regional offices that perform some similar functions, that it is difficult for the ACER to maintain close contact with all such centres. In order to strengthen contacts with these centres, it will be necessary for ACER Advisory Service staff to travel more extensively around Australia. In recent months some travel of this kind has been undertaken, but the effectiveness of this travel will need to be monitored and alternative strategies to achieve the desired goals will need to be explored.

School-based Problem-solving Programs

During the past few years across Australia there has been a widespread acceptance of school evaluation studies. Associated with these studies has developed the practice of examining specific problems of a curricular or organizational kind within schools without the undertaking of a full-scale evaluation. There is emerging within schools an interest in school-based problem-solving programs that are sometimes undertaken by an outside panel, sometimes by a team drawn from within the school, and sometimes by a combined group with internal and external representation. The ACER has some members of staff who could well assist with such work. Nevertheless, with a limited number of staff and with limited resources, it is necessary to question the use of ACER staff in such programs. There is without doubt a great deal of valuable work being carried out through such programs, but it is not clear how the ACER can make a direct contribution to this work, or how assistance can be provided through educational research to enable such problem-solving programs to develop effectively.

Need for Expansion of Activities

The ACER must from time to time examine critically its efforts in each of the six areas considered above, to determine whether it is contributing effectively to the dissemination of research-based information and whether it is open to the issues and problems that exist in practice and that might be investigated through research of the type conducted by the ACER. There is little doubt that one of the ways in which the ACER can increase the effectiveness of the work that it performs is through maintaining and strengthening its interaction with the educational community at large through the State Institutes of Educational Research. The mechanisms that were set up 50 years ago to build links between the

newly formed Council for Educational Research and the voluntary associations that had already been formed in certain States, or that were readily established in the remaining States, to foster educational research would appear to have been sound and admirably suited to the situation that existed in this country. Nevertheless, it is important to recognize that there is a very sizable and significant task involved in considering how the State Institutes might become more effective in the sponsoring of educational research and in the support of the ACER. Until recently, the Education Research and Development Committee sought to take a co-ordinating role across Australia in the field of educational research. The ERDC no longer exists, but the tasks that it performed, aside from the provision of financial support for research, remain to be carried out by other organizations in other ways. Consequently it is appropriate that at this time the ACER and the State Institutes of Educational Research should turn to consider how they can work together to strengthen educational research and development and the diffusion of knowledge about education in Australia. One of the avenues that should be explored is the dissemination of knowledge about educational research. The work that the ACER is already carrying out both on its own and in collaboration with the State Institutes could well be strengthened or possibly changed. Thus consideration should be given at this time to new initiatives and alternative approaches.

The State Institutes and their Changing Role

When the ACER was established in 1930 and for its first 10 to 15 years of existence, the Council had a very small staff. At the same time there was a very limited number of educators and psychologists in Australia who had an interest in research, and these people met and worked together in the State Institutes of Educational Research. The large number of ACER publications issued during the first decade of the Council's existence, from 1930 to 1940, would seem to indicate that during this period the Council served to promote and co-ordinate the work of individual research workers in each State, as well as to provide, both through meetings and publications, opportunities for the dissemination and diffusion throughout Australia of information on educational research. Today the scene has greatly changed. There are now far greater numbers of professional workers in research and development activities in education, and a very large number of practising psychologists. Professional researchers in education are drawn together in a loosely structured Australian Association for Research in Education which conducts a conference each year as well as a series of training workshops in the different capital cities. The Australian Psychological Society is today a large and thriving association for the well-established profession of psychologists.

Over the past 50 years, the purposes and functions of the State Institutes of Educational Research have changed considerably. The establishment of the Australian College of Education has drawn away from the State Institutes members who are more concerned with debate and discussion with regard to educational issues than with research and

its dissemination. However, recently the College has established a working group that is concerned with research. As a consequence the Institutes, in some cases, have ceased to attract substantial numbers of research and development workers, but instead have attracted staff from schools and colleges of advanced education who have a lively and healthy interest in educational research and development activities.

This changing nature of the membership of the State Institutes would appear to provide a mechanism by which the staff of the Council, based in Melbourne, can maintain links in formal and informal ways with members of the user system and, to a lesser extent, with linkage agents. The interaction that is available through the State Institutes is unpredictable and subject to change and therefore cannot become the sole procedure for the interaction between the ACER and the users of educational research. However, the opportunities that are provided by the State Institutes for interaction between the ACER staff and educational practitioners are too great to be ignored. It is evident that, for the continued and healthy life of these organizations, the State Institutes and the ACER need each other. Each has much to gain from mutual interaction which would be of benefit to educational research and practice. The ACER can maintain contact with the users of the outcomes and products of its research and development program through its interaction with the State Institutes, and the State Institutes can maintain close links with new research and development through their affiliation with the ACER. The question remains as to how in changing conditions and circumstances the State Institutes and the ACER can adapt to meet new needs.

There are many possibilities that should be considered in any re-examination of the functions and purposes of the State Institutes, and the following suggestions are raised with a view to promoting debate and discussion rather than attempting to lay down guidelines for the State Institutes. They are advanced under the assumption that, in the main, the linkage agents or the change agents who will link the research institution to the users and who will promote change based on sound evidence and accumulated knowledge in the field of education will be members of the State Institutes.

- 1 Through the elected representatives of the State Institutes to the ACER Council, it is envisaged that the Institutes will keep the ACER Council and staff informed on the needs of users of educational research and development.
- 2 Through their continued involvement in the preparation and selection of articles for the *Australian Journal of Education*, the State Institutes will keep their members and the educational public informed on research and scholarly thought about educational issues in Australia and overseas.
- 3 Through conducting meetings and lectures, the State Institutes will provide a forum for debate on issues involving research and development in education, that will meet the needs and interests of their members.
- 4 Through the conduct of workshops and training sessions, in collaboration with the ACER and the Australian Association for Research in Education, the State Institutes will provide for their members and for research workers in each State, training in research and evaluation strategies and procedures that are related to the study of schools and classrooms.
- 5 Through the conduct of seminars, the State Institutes will provide for their members opportunities to learn about and engage in discussion regarding

innovatory developments and new policies and practices for the betterment of education.

- 6 Through membership on the Advisory Committee for *set* within Australia, representatives of the State Institutes will influence the dissemination of information about research to educational practitioners.
- 7 Through the provision of the ACER *Project News*, the ACER *Newsletter*, and the ACER *Bulletin for Psychologists* to their members, the State Institutes will disseminate information about the ACER and its research, development, and service programs.

The seven functions of the State Institutes listed above are all activities that are currently undertaken by the Institutes and the ACER. It is, nevertheless, essential that consideration should be given to other or different ways in which the Institutes and the ACER might work together to serve Australian education more effectively.

Distribution Services Activities

Over the past 25 years the ACER has established an extensive mail order sales and marketing program. Initially these activities were directly related to the selling of tests developed by the staff of the Council and published within Australia. Subsequently the ACER placed on the market in Australia a wide range of psychological and educational tests that had been developed principally in Britain and the United States. In order to avoid some of the unfortunate consequences of excessive testing and the abuse of psychological testing by untrained persons, the ACER has sought to promote the sale of such materials to duly authorized persons only and to provide advice on the circumstances under which such tests are best used. Moreover, in the mid-1960s, the ACER was able to enter the field of curriculum materials development and, as a consequence, published for use in Australian schools materials that had been prepared to suit Australian conditions. At the same time, the ACER, recognizing the cost and time limitations associated with the development of such materials, proceeded to import from both Britain and the United States, for sale to Australian schools, educational materials that had been developed by research-based institutions and that maintained the highest standards of research and materials development. The extension of the distribution services activities of the ACER in this way has helped to maintain the commercial viability of our mail order business at a time when the ACER's production of curriculum materials was reduced as a consequence of policy decisions imposed on the Council from outside.

It must be recognized that the ACER's distribution services activities are of considerable importance since they support the publication of books, reports, and serials that could not otherwise be undertaken without a significant redirection of resources from research and development towards this end. Indeed it must be recognized that the major part of the ACER's program of diffusion and dissemination of research is provided for not by the core grant or by contracted research, but by the distribution services activities which the ACER undertakes. These sales activities are carried out in order to disseminate the products of research

and development that have been prepared by the staff of the ACER working in collaboration with colleagues in other Australian institutions, as well as those of the highest quality that are available from kindred institutions overseas.

It is important to recognize that the work of the ACER's Distribution Services Division is an essential part of the Council's program of dissemination and diffusion of knowledge about education in Australia. Moreover, this component of its work would be lost if the research and development program were separated from the distribution and sales program. Administratively it might be easy for this separation to take place; but the work of the Distribution Services Division would quickly become solely directed towards sales and marketing, and the work of the Advisory Services Unit would be directed only towards this same end and not towards the dissemination of knowledge about education and the distribution of the products of research and development. In addition the staff engaged in research and development would, it must be suggested, quickly lose sight of the need for their research activities to be directed towards ideas and materials that can be used in the field of education. Furthermore, the opportunities to remind them and to encourage them to take part in the process of dissemination would be lost. The dangers associated with maintaining a research institution that is completely divorced from the world of educational practice that it serves cannot be ignored.

Since the State Institutes of Educational Research must be envisaged as an essential part of the research and development network that was established concurrently with the ACER, it is important to consider whether it would be possible for them to take a more active part in the program of dissemination carried out by the ACER through its Distribution Services Division. A suggestion has been advanced that the ACER should set up agencies in each of the major state centres. However, there is the danger that such agencies would not be self-supporting or alternatively they would operate in ways that were unrelated to the dissemination program of the Council and that were, in the long term, not in the best interests of either the Council or educational practice in Australia. The alternative might be to attempt to extend the work of the research and development networks, of which both the State Institutes and the ACER are parts. In conclusion, it is important to recognize that the ACER and the State Institutes exist to operate jointly for the benefit of education in Australia.

THE GENERAL ASSEMBLY OF THE INTERNATIONAL ASSOCIATION FOR THE EVALUATION OF EDUCATIONAL ACHIEVEMENT, CANBERRA, 1982

During the first week of February 1982, the Twenty-Second Annual General Meeting of the International Association for the Evaluation of Educational Achievement (IEA) was held at University House, Australian National University, Canberra. Some 60 delegates and observers associated with educational research centres in 26 countries attended this first meeting of the General Assembly to be held in the southern hemisphere. The President of the IEA, Professor Torsten Husén of the Institute of International Education of the University of Stockholm, addressed the opening session on 'IEA's Achievements and Impacts'. Professor Neville Postlethwaite, Chairman of IEA, presented the Chairman's Report for the year 1981, on IEA's activities in research and training since the previous General Assembly Meeting in Jyväskylä, Finland in late 1980.

The program of the meeting was a very full one giving detailed attention to the five on-going IEA research and development programs in the areas of:

- mathematics;
- writing;
- science;
- classroom environment and teaching behaviour;
- item banking.

These projects are being undertaken on a co-operative basis by research centres in the IEA member countries, and each is co-ordinated by an international centre which is located in one of the member countries. In addition, during the General Assembly Meeting consideration was given to proposals that had been prepared on four future projects in the areas of:

- development and assessment of practical skills;
- processes of pre-primary school education;
- instruction through a second language;
- longitudinal studies of the transition from school to work.

The meeting resolved that work should be done on the preparation of final plans for the pre-primary and longitudinal studies, and that the projects associated with practical skills and second language learning should undergo considerable redevelopment.

During the General Assembly Meeting, Working Groups met to examine the following issues of importance to IEA:

- strategies and procedures for improving the quality of IEA research;
- dissemination and publication of the findings of IEA research;
- training of research workers;
- promotion of research in the less-developed countries.

A Public Forum was held on 8 February at which papers were presented to a group of mathematics educators from Canberra on:

Curriculum Changes in School Mathematics and the Effects on Achievement in Scotland, Hungary, and Australia;

Changes in the Mathematics Education of Girls in Australia from 1964 to 1978;

The Mathematics Classroom in Ontarian Primary Schools.

Two formal receptions were hosted respectively by the Governor-General, His Excellency Sir Zelman Cowen, at his residence at Yarralumla, and the Commonwealth Minister for Education, the Hon. Wal. Fife at Parliament House. In addition, the visitors to Australia enjoyed a guided tour to observe nocturnal animals in the Tidbinbilla Nature Reserve.

The General Assembly Meeting showed the IEA to be an active organization in the field of comparative education research and evaluation, which is relatively free from the constraints of international politics. It is hoped that the IEA work in the less-developed countries will be extended, and will find support and encouragement through the proposals being developed within the World Bank and the international funding agencies. One observer wrote following the meeting in Canberra:

IEA catalyses basic data collection relevant to educational policy development which would otherwise not take place in many countries, and the huge task of training a cadre of researchers able to design, execute and analyse multivariate studies relevant to the improvement and development of educational systems has now begun under the umbrella of IEA. Interestingly ideological barriers across countries seem negligible in this framework.

The ACER hosted this important meeting and is grateful for the special support it received from several sources which made the meeting possible.

PROGRAM IN LEARNING AND TEACHING

Advisory Committee

Dr G.A. Ramsey (Chairman), Dr N. Bowman, Dr M.L. Clark, Dr A. Trethewey, Dr B.J. Webber, Professor R.T. White, Mr S.F. Bourke, Dr M.J. Rosier, The Director (The Committee met once during the year.)

Overview

The main thrust of the program of research of the Learning and Teaching Division during 1981-82 was in three areas: evaluation studies of the curriculum; studies of learning and teaching practices; and studies of the learning problems of individuals and subgroups. In addition, there was a minor involvement in a study concerned with the acquisition of writing skills. Two areas which were considered to be of importance when the program of the Division was formulated in 1978-79 — namely, studies of the acquisition of attitudes and values, and studies of the transition from school to adult life — are not currently being investigated. In part, the Social Context of Education Division has moved in the intervening period into these two areas and it would involve unnecessary and undesirable duplication to undertake work that might in any way overlap with the program of research of another Division.

A wide range of research methodology is employed in the program of the Division and studies being undertaken involve the following research methods: review of research and practice; surveys; case studies; classroom observation; analysis of text; secondary analysis of data; formative curriculum evaluation; summative curriculum evaluation; and the evaluation of a specific program. Moreover, the studies are not restricted to one curriculum area but are spread across several areas: namely, science; mathematics; writing and written expression; English as a second language; and language development in English. The Division is thus maintaining a varied program in spite of the severe cutting back that has occurred as a consequence of a reduction in the resources available.

Two very substantial and significant studies are being conducted within the Division and, while both had been commenced during the previous year, they have made marked progress during the period under review. These studies are the Second IEA Science Study and the IEA Classroom Environment: Teaching for Learning Study. For the former study, the ACER is the international co-ordinating body and through this work the ACER is seeking to return to the member countries some small part of the great benefits that have been received from IEA over a period of nearly 20 years. With the latter study, the ACER is profiting greatly from the development of and training in the skills of classroom observation, and from the examination of appropriate methods of analysis of the complex body of data that is being assembled.

However, the period under review has not been one in which a significant number of reports have been prepared and reached the stage

of publication. Nevertheless, two reports are in the process of publication: a review of Bilingual Education in Australian Schools, and a research monograph on Socio-spatial Indicators of Educational Disadvantage. In addition, there are several reports from the Division that are in the form of penultimate drafts. These include a report on changes in Year 12 chemistry in Australia 1970-80, a report on social competence and the core curriculum, a report on the context of teaching and learning in Victorian classrooms, and a report on curriculum style and English language teaching.

It is considered important within the Division that, wherever possible, the research which is undertaken should lead to publication, although the final stages before publication are frequently prolonged, partly because it takes time to obtain opinions on the strengths and weaknesses of a report, and partly because there is frequently a need to initiate work on a new investigation before an earlier study has been completed in final form for publication.

Second IEA Science Study

Malcolm J. Rosier, Douglas T. Couper (to December 1981), Christopher M. Kay (from December 1982), John P. Keeves

(This project was included in the ACER Core Program. The international costs associated with the study have been covered by a grant from the National Institute of Educational Research, Tokyo, Japan. Mr Couper and Mr Kay were seconded from the Victorian Education Department.)

The aims of the Second IEA Science Study are to measure the current state of science education across the world, to investigate curricular and other factors which explain differences in the outcomes of science programs, and to make comparisons with the results of the first study conducted in 1970.

The underlying management philosophy for the study focuses on co-operation between the participating countries, with the National Research Co-ordinators working together to develop the plans for the conduct of the study. The International Centre for the study is at the ACER, with Dr John Keeves as Chairman of the International Project Council and Dr Malcolm Rosier as the International Co-ordinator responsible for all operational aspects of the study. There will be several agreed international core components of the testing programs and data analyses, but the participating countries are being encouraged to add national components, so that each country conducts a total national study that addresses issues important to that country.

The study is still in Stage 1 which involves detailed planning. At present about 30 countries are participating in this stage, of which about half are classified as less-developed countries. One part of the planning has involved an analysis of science curricula in the participating countries. In Australia this is being undertaken by means of a survey of a small number of schools in each State. In addition, a detailed examination and an analysis of changes between 1970 and 1980 in matriculation science curricula is planned. The first of these studies concerned with changes in chemistry curricula has been completed but awaits editing for publication. A similar study in physics is being undertaken and it is hoped that a study of changes in biology education across this period will be carried out.

The other related part of the planning has involved the development of a range of trial tests. These are being administered to groups of students in the participating countries in order to provide data to assist the preparation of the international core tests. The planning stage ends in mid-1983, which is the last date by which countries must enrol in the study. The data collection stage lasts from March 1983 until June 1984, so that some countries will have collected their data before others have joined the study. The analysis and report writing stage follows.

Two meetings have been held in connection with the study. The National Research Co-ordinators from 20 countries held their first International Study Committee meeting in September 1981 at Frascati, Italy, hosted by the Italian National Centre for IEA at the Centro dell'Europeo Educazione. The Steering Committee met for a week in February 1982 in Melbourne, and had the opportunity to discuss the study with members of the Australian National Committee which has been established to assist in planning the conduct of the study in Australia.

Publications and Papers

Rosier, M.J. and Couper D.T. *The Analysis of Science Curricula*. Hawthorn, Victoria: ACER, 1981. (mimeo.)

Couper, D.T. *Changes in Year 12 Chemistry in Australia: 1970-1980*. Hawthorn, Victoria: ACER (in press).

Australian Studies in Student Performance

John M. Mills, Allyson P. Holbrook

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

At the beginning of the year while awaiting decisions about the future of the Australian Studies in Student Performance (ASSP) program, two studies were commenced by the staff who had been working on this project. Both studies were related to issues raised indirectly by the ASSP study.

The Handwriting Study

The aim of this study of student handwriting is twofold: (1) to look at the possibility of a relationship between essay marks and handwriting quality, and (2) to examine descriptively the style and form of handwriting in the ASSP scripts. A total of 400 scripts, equally divided between the 10- and 14-year-old levels, were randomly selected. The handwriting in the essay task for each script was analysed for style, size, spacing, letter form, alignment, thickness of stroke, and writing instrument. Four markers were engaged to give an impression mark to each of the essays. One week later they gave impression marks to samples of handwriting from the same scripts. The criterion for their judgment was the 'communicability' of handwriting. Analysis of the data is now under way.

A review of literature associated with handwriting has been undertaken and an article for the *International Encyclopedia of Education: Research and Studies* was produced on the topic of legibility.

Publications and Papers

Holbrook, A.P. Legibility. In T. Husén and T.N. Postlethwaite (Eds), *International Encyclopedia of Education: Research and Studies*. Oxford: Pergamon (in press).

Bilingual Education in Australian Schools

A review of research into bilingual education both overseas and in Australia has been carried out. In addition a survey, involving visits to all Australian States and Territories, was undertaken in order to report current practices with respect to bilingual education programs in this country. The review of research and the survey of practice have been combined, together with a detailed discussion of issues related to the provision of bilingual education programs in Australia, to form a report for publication in the *Australian Education Review* series. The preparation of such a review is timely and after publication will form the basis of a submission to the inquiry into a National Language Policy for Australia.

Publications and Papers

Mills, J.M. *Bilingual Education and Australian Schools*. (Australian Education Review No.18). Hawthorn, Victoria: ACER (in press).

Social Indicators of Educational Achievement

Kenneth N. Ross

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

This study was concerned with the development and validation of a national indicator which would be suitable for guiding decisions concerning resource allocation to educationally disadvantaged schools in Australia.

The national indicator was constructed by using a series of stepwise regression analyses in order to obtain a linear combination of census-based descriptors of school neighbourhoods which would be highly correlated with school mean achievement scores. A correlational investigation of the properties of this indicator showed that it was an appropriate tool for the identification of schools in which there were high proportions of students who (1) had not mastered the basic skills of literacy and numeracy, (2) displayed behavioural characteristics which formed barriers to effective learning, and (3) lived in neighbourhoods having social profiles which were typical of communities suffering from deprivation and poverty.

A theoretical model was developed in order to estimate the optimal level of precision with which indicators of educational disadvantage could be used to deliver resources to those students who were in most need of assistance. This model was used to demonstrate that resource allocation programs which employ schools as the units of identification and funding must take into account the nature of the variation of student characteristics between and within schools.

The technique of factor analysis was employed to investigate the dimensions of residential differentiation associated with the neighbourhoods surrounding Australian schools. Three dimensions

emerged from these analyses which were congruent with the postulates of the Shevky-Bell Social Area Analysis model.

Publications and Papers

Ross, K.N. *Socio-spatial Indicators of Educational Disadvantage*. Hawthorn, Victoria: ACER (in press).

STUDIES OF SCHOOL AND HOME PRACTICES

IEA Study of Written Composition

Graeme Withers

(This study was funded from the ACER Core Program.)

Following the circulation of draft documents outlining the rationale and details of this project, a meeting of representatives from participating countries was held in Los Angeles in April 1981. As a result, participation by Australia in this project was confirmed, once such guideline documents had been heavily revised. Activity has been of two main types: commentary on and completion of national literacy questionnaires and other instruments relating to the teaching and assessment of writing, and a trial testing of some of the formats and topics proposed for the main study in 1983. National options concerned with the creative strain in student writing in senior school have been developed with the help of a small advisory committee.

Classroom Environment Study: Teaching for Learning

Sidney F. Bourke, Faye Holzer, Arnold Vander Werf (from May 1982)

(This project was included in the ACER Core Program. Mr Vander Werf was seconded from the Victorian Education Department.)

The Classroom Environment Study is a three-phase project consisting of teacher survey, classroom observational, and teacher education experimental phases. The project is currently in phase two — classroom observation — which has as its focus a consideration of the relationships between specific teaching practices and student outcomes, both cognitive and affective.

Following development and trials of the instruments during the latter part of 1981, the classroom observations were undertaken early in 1982. The principal and Year 5 teachers in each of the 80 metropolitan primary schools that took part in the teacher survey phase of the study were asked to permit an observer to record the teachers' instructional and managerial practices during mathematics lessons. Clearly teacher volunteers were necessary for such a study. Finally 75 Year 5 teachers spread over 39 schools participated fully in the study.

Each classroom was observed for a minimum of 30 minutes on at least eight occasions spread over eight to ten weeks during first term with observations commencing one month after the term began. The class grouping arrangement being used, the participants in each student/teacher interaction, and the nature of the interaction were recorded using a low inference measure. This aspect of the observation was teacher focused. In each classroom, eight individual students were also observed to provide a student focus to the observations. The nature of the activity on which each student was intended to be working, whether the student was on task, and whether he was interacting with the teacher were recorded for each of the eight students on five occasions during each lesson. Teacher and student questionnaires were also administered together with pre- and post-tests of mathematics achievement. The tests were designed to measure achievement in those areas of the Year 5 curriculum that were common to all classrooms. In addition, teachers were asked to set 15 test items that best represented what they had been teaching during the term. The teacher questionnaires sought some background information on the teacher and the school, asked teachers about their responsibilities, priorities, and emphases in teaching, sought their opinions of their students, and asked them to indicate their satisfaction with various aspects of teaching. The student questionnaires obtained background information on the students and their home circumstances, and asked about student perceptions of school in general, of mathematics in particular, and of the task orientation of the classroom.

An analytical model has been developed linking the community, student home background, the school, and teacher and student characteristics with classroom context and instructional and managerial practices operating in the classrooms. The relationships of all of the above with student achievement and attitudes as outcome measures will be investigated. The model will be tested separately for achievement and for attitudes and the teaching practices related to the outcomes identified. It is these practices that will be incorporated into the teacher development phase of the study.

Australia is one of 11 countries taking part in this IEA study. As Canada is conducting three separate studies, 13 data sets will be produced. As a result of different emphases between countries, there are some differences in the data collected, although the core of teacher instructional and managerial practices is common to all countries. Separate analyses will be undertaken for each country and the relationships found will be compared in an international report to be written during 1983. Each country will also produce its own national report, the Australian report being prepared concurrently with the international report.

Publications and Papers

Bourke, S.F. Mathematics in the Primary Classroom: Learning Contexts and Teaching Practices. Paper presented to the Mathematics Education Research Group of Australia Annual Conference, Melbourne, May 1982.

Evaluation of the Language Development Project

Kevin Piper

(This project was funded by the Curriculum Development Centre.)

The Language Development Project is a major national curriculum project being undertaken by the Curriculum Development Centre. It is concerned with all aspects of the language development of students in Years 5 to 8, the upper primary and lower secondary years. Phase II of the project is principally concerned with the development of curriculum materials for teachers and students, and the ACER has been conducting an independent national evaluation of this phase of the project's activity.

Eight developmental teams, one located in each State and Territory, have been involved in the project, and a local evaluator is attached to each team. In addition to co-ordinating the activities of this evaluation team, the national evaluator has been responsible for the local evaluation of the work of the CDC/ACT Language Development Project.

The decision of the Commonwealth Government to wind down the operations of the Curriculum Development Centre led to drastic changes of direction in the Language Development Project's planned program of development during 1981-82, and this in turn led to changes in direction for the evaluation of the project. Foremost among these was the forced abandonment of plans for the national trial testing of project outcomes, and the devising of alternative procedures for limited evaluation within the time constraints imposed by the revised program.

Three reports have been prepared for the Curriculum Development Centre during 1981-82: one on the national project, and two on the local CDC/ACT project. A further national evaluation report is in preparation.

Publications and Papers

Piper, K.J. National Evaluation of the LDP (Phase II), Report No.4: Present Conditional, Future Indefinite. October 1981. (mimeo.)

Piper, K.J. The CDC/ACT Language Development Project, Evaluation Report No.3. November 1981. (mimeo.)

Piper, K.J. The CDC/ACT Language Development Project, Evaluation Report No.4: A Retrospective Overview. May 1982. (mimeo.)

Piper, K.J. Evaluating a national curriculum project. *English in Australia*, 1981, **58**, 10-12.

Teaching Style and Language Learning

Kevin Piper

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

This project has been concerned with an investigation into current school practices in the teaching of English language in the junior secondary

school, with particular reference to teaching directed towards the attainment of language competence. The aims of the study are:

- 1 to map the range of approaches to the teaching of English language in the junior secondary school;
- 2 to determine the relevance of the concept of curriculum style to the English language curriculum, and to determine what modification, if any, would be required to develop a typology of curriculum style suited to the English language area; and
- 3 to explore the variety of viewpoints among English language teachers as to what constitutes language competence.

The investigation was carried out by means of case studies of 25 schools in New South Wales, Victoria, and the Australian Capital Territory selected to cover a wide range of approaches to the teaching of English language. Eight of these schools were selected for more detailed case study during 1981. A final report of the study is being prepared for publication and is nearing completion.

Advisory Committee

Professor P.H. Karmel (Chairman), Mr B. Milligan, Professor D. Beswick, Dr G. Elsworth, Associate Professor Millicent Poole, Professor R. Selleck, Dr J.G. Ainley, Mrs M. Batten, and Dr T.H. Williams (The Committee met once during the year.)

Overview

Two projects dominated the Division's research program over the past year: the Staffing and Resources Study; and the project now called Youth in Transition. Both had an explicit policy research orientation. Each comprised several research emphases centred around the main theme and each was undertaken by several members of staff working together as a team. The Staffing and Resources Study is at the stage of preparing final copy for publication and thus will not be part of the 1982-83 program. The project previously known as the Survey of School Leavers, over the period 1978 to 1980 when it was supported by the ERDC, is continuing through to 1984 under the name Youth in Transition and with support from four Commonwealth Government agencies.

Two other projects comprise the remainder of the Division's program at the present time. One, known as Secondary Schooling in the 1980s, is scheduled for completion in the first half of 1983. The second was commissioned by the Victorian Post-Secondary Education Commission to examine areal differences in participation in post-secondary education, and this project is nearing completion at the present time.

This mix of one-person, short-term projects with longer-term, team projects has been characteristic of the Division's program since its inception. Given the emphasis on externally supported projects, this situation will probably continue and, to some extent, the project will always have a degree of contingency occasioned by the need to respond to requests for research from funding agencies. We do not see this as especially problematic. However, experience with the two multi-strand and multi-person projects noted above leads us to believe that there is a lot to be gained from the co-ordination of both research questions and the people who seek to answer them. In the case of the former, it is quite simply the rationalization of effort that comes from co-ordinating the data collections for several projects around the same sample, and the potential that resides in the linkages within these data. The co-ordination of individuals, as in the case of members of the same research team around the same project or the members of the Division around each project being undertaken, has advantages for both the research project and for the individuals themselves. The projects receive multiple inputs from several intellectual traditions and, at the same time, staff development is enhanced through exposure to advice, criticism, and the intellectual resources of colleagues. We have moved some way in this direction in proposing a multi-strand team project called 'Organization,

Achievement, and Affect in Australian Schools', in proposing linkages between projects, and in establishing procedures whereby all members of the Division will have input into all projects as a matter of course.

EVALUATION STUDIES OF PARTICULAR POLICIES AND PROGRAMS

Staffing and Resources in Australian and New Zealand Schools

John G. Ainley, John P. Keeves, Phillip A. McKenzie, Andrew Sturman

(This project was included during 1981-82 in the ACER Core Program.)

The study, which commenced in 1979, examined issues relating to resource allocation in the government school systems of the six Australian States, the Australian Capital Territory, and New Zealand. In accordance with the terms of reference and the conceptualization of the study, resource allocation data were collected at both the system and school levels. School level data comprised a mail survey of resource allocation practices and issues in some 660 sample schools, and a more detailed series of case study visits to 16 specially selected schools.

Reports have been prepared which discuss and analyse the three data sets described above. In addition a summary volume which integrates the results of the three major reports has been prepared. Each of these volumes will be available for general release by the end of 1982. A synopsis of the three major reports is provided below.

The system level report describes and discusses the structure and personnel allocation policies of the Australian government school systems. As well as integrating a great deal of descriptive material about the operation of the systems, the report identifies structures and policies operative in particular systems which may be of value to other systems; discusses new policy developments which could assist education systems to cope with the pressures for change; and aims to stimulate a critical reappraisal of long-standing structures and policies.

The survey report examines the patterns of availability and utilization of personnel resources in the sample of 660 government schools in Australia and New Zealand. The report describes in detail the types and level of personnel resources available in schools, the structures established in schools which shape the way those resources are allocated to different functions and groups of students, and the resultant patterns of resource allocation. The report underlines the importance of considering the rich complexity of school objectives, circumstances, and structures in the design of appropriate staff and resource allocation policies.

The case study report describes and discusses the detailed patterns of structural organization and resource allocation in the 16 case study schools. The schools were selected so as to provide a cross-section of

school types and sizes and to include at least one school from each of the eight participating education systems. The conceptual basis for the report is that the structure of organization and resource allocation is the means by which a school attempts to achieve its educational aims and priorities within the resource and other constraints which it faces. In examining internal school structures, the report argues that it is also necessary to elaborate the processes by which such structures are established. Particular issues addressed by the report include the impact of staffing formulae upon internal school-resource allocation; the processes by which staff are appointed to schools; school-community links; school policy-determination processes; student and teacher grouping practices; class sizes; and teacher contact time.

Publications and Papers

- McKenzie, P.A. and Keeves, J.P. *Eight Education Systems: Resource Allocation Policies in the Government School Systems of Australia and New Zealand*. (Staffing and Resources Study Report No.1). Hawthorn, Victoria: ACER (in press).
- Ainley, J.G. *Six-Hundred Schools: A Study of Resources in Australian and New Zealand Government Schools*. (Staffing and Resources Study Report No.2). Hawthorn, Victoria: ACER (in press).
- Sturman, A. *Patterns of School Organization: Resources and Responses in Sixteen Schools*. (Staffing and Resources Study Report No.3). Hawthorn, Victoria: ACER (in press).
- Ainley, J.G., McKenzie, P.A., Sturman, A., and Keeves, J.P. *Resource Allocation in the Government Schools of Australia and New Zealand: A Summary*. Hawthorn, Victoria: ACER and Australian Education Council (in press).

Patterns of School Organization

Phillip A. McKenzie

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

This study, which commenced in May 1982, is concerned with the relative cost-effectiveness of alternative models of secondary school organization. The impetus for the study is the recognition that, in a period of declining enrolment and limited resources, it is difficult for many secondary schools to offer attractive and relevant programs at the upper secondary level. This concern has generated an increased interest in alternative means of organizing secondary colleges, community colleges, and clusters of specialist schools. The study aims to assist debate in this area by collecting and analysing data on both the resource implications and the effects on teachers and students of some of the major forms of secondary school structure currently operating in Australia. It is planned that the study will be completed by December 1984.

Needs of Post-Secondary Education in the Northern and Western Suburbs of the Melbourne Metropolitan Area

Warren B. Jones

(This project was funded by the Victorian Post-Secondary Education Commission.)

The main objective of the study was to establish the extent to which home location in Melbourne influences participation in studies at universities and colleges of advanced education (CAEs). This arose from a concern about possible inequalities in access to post-secondary education experienced by residents of the western and northern suburbs of Melbourne. In this context, three areas of investigation were identified: (i) a description of the patterns of enrolment at all universities and CAEs of persons from different home location; (ii) an investigation of factors affecting both the decision to apply and the decision to enrol in post-secondary studies, using multivariate statistical techniques; and (iii) an investigation of factors affecting participation in primary pre-service teacher education. A report is in preparation.

Industrial Leave in Technical and Further Education

John G. Ainley

(This project was funded by the Victorian TAFE Board.)

The provision of release from teaching duties to enable staff to participate in industry is an important component of staff development programs in TAFE which has recently been given additional emphasis in Victoria. This study applied and extended methodologies developed during a previous study of staff development in TAFE, conducted at ACER. The present study examined the role of industrial release programs in the advancing teachers' knowledge of industry and commerce, in enhancing their confidence and competence, and in leading to changes in course content and teaching methods. A general model of expected outcomes was developed and tested by means of questionnaire and interview data. The results suggested that programs of industrial release were a valuable inclusion in staff development programs. Most participants were satisfied with the programs which they experienced and most participants reported benefits in terms of their knowledge of business and industry, their confidence in their occupational field, and changes in lesson content and teaching procedures. It was suggested that part-time observational programs operated by directly providing ideas for incorporation in courses, while full-time participating programs operated by enhancing an individual's

confidence and competence which then resulted in changes in teaching. The report concluded that it was necessary to provide both types of program as part of a range of options in staff development but that longer periods of release were needed. In addition the report was able to identify issues of program operation which needed attention as the programs expanded.

Publications and Papers

Ainley, John. Continuing Industrial Experience for TAFE Staff: A Study of some Victorian Programs during 1981. Hawthorn, Victoria: ACER, 1982. (mimeo.)

NATIONAL STUDIES OF EDUCATIONAL OUTCOMES

Youth in Transition

Trevor H. Williams, Jeffery J. Clancy, Jennifer Slater

(This project was funded in part by grants from the Commonwealth Department of Education, the Commonwealth Schools Commission, the Commonwealth Tertiary Education Commission, and the Bureau of Labour Market Research, and in part from the Core Grant.)

'Youth in Transition' is the name given to the second three-year phase of what was called 'A Survey of School Leavers'. The project began in 1978 with ERDC support and centres around a mail-survey follow-up of the 1975 ASSP samples to address questions to do with the transition from school to work. Members of the 14-year-old sample from 1975, now approximately 20 years old, received their fourth questionnaire in November 1981, and members of the 10-year-old sample from 1975 received their first questionnaire by mail. For the older sample, response rates have increased from 80 per cent in 1978 to 90 per cent in 1981. The response rate for the younger sample is some 60 per cent. The reduced response can be attributed in part to the fact that the addresses used were those from 1975. Attempts to trace members of the sample with whom contact has been lost are part of the 1982-83 program. By the scheduled completion date of June 1984, the project will have data on each sample stretching over a nine-year period — respectively: the ages 14 to 22 for the older sample; and ages 10 to 18 for the younger sample.

STUDIES OF SCHOOL AND HOME PRACTICES

School Structures and Affective Responses

John G. Ainley

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

This project stems from the complementary interests of several staff members in the characterization of organizational structures within

schools, the conceptualization and measurement of affective outcomes in addition to cognitive ones, along with the question of the extent of socially dysfunctional behaviour in schools and the influences that schools have for better or worse on the incidence of these behaviours. As designed, the project is an attempt to rationalize the efforts of several staff by integrating complementary interests and producing a common data set.

Secondary Schooling in the 1980s

Margaret Batten

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

Impetus for the study came from the 1980 Schools Commission publication, *Schooling for 15 and 16 Year Olds*, which sought to raise and explore secondary schooling issues, to facilitate discussion of these issues, and to encourage 'the monitoring of what is effective in particular places with particular students'.

The aims of the study were to canvass community opinions about the educational issues of the 1980s, to find out what schools were doing to translate these issues into action, and to study in detail some examples of effective school practices. Both primary and secondary schools were included in the survey of schools, but the examination of successful school practices was confined to secondary schools only.

The study was planned in three stages:

- 1 the development of a classification of educational issues derived from recent articles, reports, and surveys on school and community expectations of education; ratification of the classification by representatives of school and community groups;
- 2 an Australia-wide survey of 400 principals from government and non-government primary and secondary schools to determine which of the issues in the classification they see as important for their schools and how their priorities are being implemented in school practice;
- 3 case studies of successful practices that exemplify the issues identified as most important to the secondary school principals in the survey, involving interviews with teachers, students, and parents in about 16 secondary schools.

The first two stages have been completed; the analysis of questionnaire data and the studies of particular school practices will be undertaken in the latter half of 1982.

Quality of Life in Schools

Trevor H. Williams, Margaret Batten

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

As part of the Survey of School Leavers study, 1978-81, a model and measure of the quality of school life for students was developed. The

dimensions represented in the instrument were: general affect, positive affect, negative affect, and four domains of schooling (status, identity, adventure, and opportunity).

The past year has seen a further refinement of the Quality of School Life measure and the development of a measure of students' perceptions of school structures. Items have been written for the four scales of Supervision, Acculturation, Certification, and Instruction. The two instruments have been trial tested in the ACT.

Publications and Papers

Williams, Trevor and Batten, Margaret. *The Quality of School Life*. (ACER Research Monograph No.12). Hawthorn, Victoria: ACER, 1981.

Batten, Margaret and Girling-Butcher, Sue. *Perceptions of the Quality of School Life: A Case Study of Schools and Students*. (ACER Research Monograph No.13). Hawthorn, Victoria: ACER, 1981.

Williams, Trevor and Batten, Margaret. Measuring the quality of school life. *VIER Bulletin*, 1982, No.48, 12-43.

Advisory Committee

Professor D. Spearritt (Chairman), Mr L.D. Blazely, Mr A. Farmer, Dr L. Higgins, Professor J. Keats, Dr L. Mackay, Dr J.F. Izard, Mr G. Morgan, Dr H.A.H Rowe (The Committee has met twice during the year.)

Overview

The program of the Measurement and Evaluation Division has benefited considerably from the constructive comments from past and present Advisory Committee members. At the end of 1981, Dr G.A. Ramsey retired as Chairman, and Dr A. Barton, Professor B. McGaw, and Mr P. Varley completed their terms as members. At both meetings of the Advisory Committee, members have examined project proposals, and reviewed progress on existing projects concerned with educational and psychological test development, the provision of testing services, and the maintenance of tests and associated materials. Suggestions have been made for future research and development directions from the perspectives of both the research community and the user of ACER tests and services.

In the past 12 months the ACER has published a number of significant testing materials. While it is not possible to review in detail all of the materials, there are several publications which should receive special comment because they have met user needs with particular success and reflect important aspects of the work of this Division. Some publications such as the *ACER Early School Series* result from an extended period of sustained research and development by ACER staff with advice from outside expert panels. Others such as the *Australian Chemistry Item Bank* have been produced by seconded teachers working under the guidance of ACER staff and an advisory committee. In some cases it is considered appropriate to adapt overseas instruments for use in Australia and to collect local data as in the case of PAYES and *English Skills Assessment*, while in other cases requests from schools may result in a re-development of tests in an area such as spelling.

The revision of psychological and educational tests has continued as a substantial part of the ACER program. The second edition of the *ACER Higher Test ML-MQ* has been published together with a new parallel form, *ACER Higher Test PL-PQ*. The second edition of the *ACER Advanced Test AL-AQ* is in press together with a new parallel form, *ACER Advanced Test BL-BQ*. The *ACER Advanced Test B40* has been re-standardized and a revised manual is in press. Three general ability tests for the Intermediate level have been prepared and the norms collected in November 1980 have been processed. The *ACER Intermediate Test G* has been published, the *ACER Intermediate Test F* is in the final stages of printing, and the Australian adaptation of the *Otis-Lennon School Ability Test — Intermediate Form R* will be published shortly.

As various test development and test maintenance projects have concluded, with the publication of tests, handbooks, and associated materials, the program has been modified to incorporate other projects developing new instruments, adapting overseas publications for Australian use, and providing a regular schedule of test revision and maintenance.

The *ACER Early School Series* provides a range of criterion-referenced tests for auditory skills, conceptual skills, and language skills. The ten diagnostic and screening tests facilitate estimates of cognitive development and maturity for children in the early school years and may have applications for children in special education classes and some groups of handicapped older persons. The kit of materials includes *Early Identification and Intervention: A Handbook for Teachers and School Counsellors* which provides a general theoretical framework for intervention procedures, reviews published research in each area of development, and assists the user in translating diagnostic information into needs-based teaching programs.

Because of the considerable interest in behaviourally defined and teachable skills, and the early identification of children who may be at risk for initial or more permanent learning difficulties, many people wished to obtain more information about the materials. Dr Rowe has conducted workshops in Queensland, New South Wales, South Australia, and Victoria, and Advisory Services staff have included these materials in other workshops conducted in several States. The numbers attending these workshops and the favourable comments from participants have emphasized the necessity for an active program of dissemination of the results of the ACER's research and development.

The *Australian Chemistry Test Item Bank* is the result of a three-year project involving the preparation of test items for Years 11 and 12 in Australian secondary schools. Over 2000 items were written and discussed in co-operation with more than 60 chemistry teachers. The test item collection includes several hundred items published in the *Chemistry Test Item Collection (CHEMTIC)* in 1980, and the *CHEMTIC Supplement* in 1981. The two-volume item bank provides chemistry teachers with an extensive collection of test items classified by topic and includes item facility codes so that teachers may assemble tests of appropriate difficulty for the topics they have taught. Teachers are encouraged to assemble their tests from the item bank and to duplicate copies (without copyright fee) within their own schools. This resource has been developed to be compatible with the Australian Academy of Science chemistry curriculum project.

The *Program for Assessing Youth Employment Skills (PAYES)* is a series of questionnaires and tests designed to assess employment-related attitudes, knowledge, and interests in low-achieving adolescents and young adults. The materials were adapted by the ACER from the edition developed in the USA by the Educational Testing Service. Performance on each measure is assessed against locally determined cut-off scores to decide mastery, possible mastery, or non-mastery. Australian data are

available for samples of secondary school students, and EPUY participants.

The *English Skills Assessment* test materials were adapted from some tests published in the USA by the Educational Testing Service and the College Board. The ACER has developed materials appropriate for Years 11 and 12 and the first year of post-secondary education. The tests have sections on spelling, punctuation and capitalization, reading comprehension, usage, vocabulary, sentence structure, and logical relationships, and the answer sheet has been designed so that each student can score and interpret the results if desired. The initial interest in this battery suggests that it is performing an important role in identifying students who require additional assistance to complete secondary and tertiary courses, and in choosing appropriate content for such assistance programs.

At the primary school level there has been considerable interest in aspects of spelling. The *ACER Spelling Test* for Years 3-6 provides objective measures of spelling achievement based on dictated sets of words. Such information may be complemented by use of the NZCER *Proof Reading Tests of Spelling* (PRETOS) which provide objective measures based on identification of spelling errors in a written passage and correction of the words. One of the authors of this material, Mr Cedric Croft of the New Zealand Council for Educational Research, worked at the ACER offices during a period of sabbatical leave and gathered Australian data for these tests.

During the year all tests published by the ACER have been reviewed to determine those instruments which might be made easier to use, or which would benefit from provision of additional forms or supporting information. Alternative forms have been developed for some tests and improved aids to scoring and analysis have been developed for others.

There are several areas where a detailed examination of issues and developments overseas will be necessary before there is extensive commitment of ACER staff and resources. One such area is concerned with electronic product development. Many secondary and some primary schools own microcomputers and there are signs that the costs of computer hardware are rapidly becoming lower. Microcomputers in schools appear to be reliable and a considerable range of software for instructional and testing purposes has been developed overseas. The ACER needs to be aware of developments in this field so that such innovations can be evaluated, and publications which offer considerable promise for Australian education can be made available. A number of overseas research bodies and test publishers have released either demonstration materials or pilot publications, and staff of the Division will be active in monitoring the impact of such materials and the development of new methodology using microcomputers for testing.

A second area involving computer technology is the provision of test scoring services. With the development of new instruments, the revision of existing tests, and adaptation of overseas publications, considerable expenditure is necessary for the processing of test responses. The use of

optical scanning equipment may reduce the costs of such processing, and should be employed provided that the task is not altered significantly by the use of special answer sheets. Other users of the ACER testing services will benefit from the provision of such equipment.

A third area requiring careful assessment is the balance between adaptation of overseas instruments and the provision of resources for the development of new Australian instruments which might be successfully marketed overseas. However, the high costs of development and the relatively small market in Australia clearly restricts the effort that can be given to the preparation of Australian test materials, unless overseas markets are opened up.

DEVELOPMENT OF TESTS AND INSTRUMENTS FOR USE BY TEACHERS AND GUIDANCE OFFICERS

School Achievement Tests

Graham Ward, Stephen Farish, Arnold Vander Werf (from February 1982), Mark Wilson (to August 1981)

(This project was included in the ACER Core Program. Mr Farish, Mr Vander Werf, and Mr Wilson were seconded from the Victorian Education Department.)

Work on the Review and Progress Tests (RAPT) in computation was deferred in June 1981 but began again in March 1982. The tests in addition, subtraction, and multiplication were re-examined and some changes were made to the objectives and items. Two sets of division tests were formed. All the tests in the series have now been finalized and are in process of publication.

The test series contains sets of Progress Tests which are short tests, each of which is concerned with a specific objective, together with Review Tests which are longer tests covering a number of objectives. The items on all the tests in a particular computation area have been calibrated for difficulty on a common scale using a Rasch scaling procedure. Scale conversion tables have been prepared to provide ability measures on each RAPT scale from scores obtained on any of the tests in each computation area.

The *RAPT in Addition* and *RAPT in Subtraction* each have nine Progress Tests and two Review Tests and the *RAPT in Multiplication* has twelve Progress Tests and three Review Tests. There are two sets of *RAPT in Division* Tests. The Division 1 test covers division by one digit divisors and the Division 2 test covers division by two digit divisors; each of these sets has seven Progress Tests and two Review Tests. A manual for the series is being prepared.

The ACER has continued to be represented on the Australian Co-operative Assessment Program (ACAP) Committee of Management.

Career Planning and Guidance

Janice Lokan and Meredith Shears (to October 1981)

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

Changes in staff allocation have resulted in revisions to the completion dates of most aspects of this project. The *Career Development Inventory* questionnaire is now in the process of being published, with the manual scheduled for completion shortly.

During the second half of 1981, two waves of data collection, analysis, and instrument revision were carried out for the international Work Importance Study (WIS), and a preliminary paper was prepared for the Fifth Planning Conference in Lisbon late in 1981. On the basis of decisions taken at this meeting, a further instrument trial was carried out from April to June 1982, with the main international data collection now scheduled for late 1982. There is every indication that the project will result in internationally sound instruments for assessing several aspects of the meaning of work.

As a basis for proceeding with the adaptation and validation for Australia of instruments based on Holland's vocational choice theories (the *Vocational Preference Inventory* and the *Self-Directed Search*), a seminar entitled 'Research on and Applications of Holland's Theories in Australia' was held at the ACER on 22 and 23 February 1982. Papers were sought from both local and interstate vocational psychologists from universities, colleges, and government departments. The seminar was attended by 20 people, seven from interstate, and 14 papers were presented.

Publications and Papers

- Lokan, J.J., (Boss, M.W., and Patsula, P.J.). A study of vocational maturity during adolescence and locus of control. *Journal of Vocational Behavior*, in press.
- Lokan J.J. (and Biggs, J.B.). Student characteristics and motivational and process factors in relation to styles of career development. *Journal of Vocational Behavior*, in press.
- Lokan, J.J. Properties of the revised values scale and salience inventory. Working paper prepared for Work Importance Study Fifth International Planning Meeting, Lisbon, October 1981.
- Lokan, J.J. and Shears, M. The Assessment and Structure of Vocational Interests in Disadvantaged Adolescents. Paper presented at the Australian Association for Research in Education Annual Conference, Adelaide, November 1981.
- Lokan, J.J. (and Trebilco, G.R.). Decision-making Style and Vocational Maturity in Adolescents. Paper presented at the American Educational Research Association Annual Conference, New York, March 1982.

Victorian School Achievement Tests

Jackie Stanyon, Lee Waddell, Lesley Howard Murdoch, Meredith Doig

(This project was funded by the Victorian Education Department, and staff working on the project were seconded from that Department.)

As a contribution to the Australian Co-operative Assessment Program, this project, established in July 1980, is a joint venture between the Victorian Education Department and the ACER. The aims of the project are to provide materials which can assist teachers to evaluate the progress and development of their students in oral and written language and social learning. Currently materials are being designed for use mainly at the upper primary and lower secondary levels although it is envisaged that, in the long term, Years 3 to 9 will be included.

Three Advisory Committees were formed for oral language, written language, and social learning in 1980. Acting on the advice of these Advisory Committees, draft materials have been prepared for all three areas and have been submitted to the respective Advisory Committees for critical review. In addition, national conferences to discuss priorities and directions for project development have been held for social studies in October 1980, and for oral language in April 1981. Preparations for these have followed the recommendations of the ACAP Management Committee. Participants included state departmental representatives, representatives of parent-teacher and professional organizations, ACER personnel, and other educationalists. Recommendations regarding the development of materials are currently being implemented.

In social learning, conference participants supported the development of practical guides to assist teachers in developing their own evaluation strategies and methods. During the latter part of 1981 and the first half of 1982, the main focus has been on the production of a number of teacher guides. These guides are currently in preparation for field testing in late 1982. The topics covered include evaluation of concepts, facts, and generalizations, the use of the SOLO Taxonomy, and the evaluation of enquiry learning, and student self-evaluation.

During March 1982, the Oral Language Advisory Committee was extended. The new Advisory Committee participated in the National Conference in Oral Language and assisted in the editing of discussion papers prepared for the Conference as well as suggesting a number of new initiatives that the Project might undertake in the development of materials. Project staff are now involved in designing several sets of materials, the purpose of which is to offer guidance to teachers in the observation of the spoken language of students and in the interpretation of such observations into curriculum plans and practices.

For written language, two major developments have occurred. A review of the place of writing in the curriculum was undertaken with particular emphasis on the effect of what has come to be known as 'writing apprehension'. A theoretical framework was developed

incorporating important factors which contribute to the determination of a students' attitude to writing. This framework was then operationalized into an 80-item Likert scale, which was field tested with a sample of Year 7 classes. Item and factor analyses were used to refine the scale to a suitable length. Validation of the scale will follow. Secondly a pilot study is being undertaken to explore possibilities in the teaching of writing stories (narrative) in Year 7 classrooms. The first part of the study undertaken in Term I 1982 focused upon students' perceptions of value in their own stories. The second part, which is current, is focusing on techniques, strategies, and materials for the improvement of the craft aspects of writing.

Publications and Papers

Howard, L. (Ed.). Social Studies/Social Learning. National Conference Report, Melbourne, October 1981.

Waddell, L. Listening education. *Curriculum and Research Bulletin*, 1981, 16(2) 17-32.

Chemistry Unit Tests

Chris Commons (to December 1981)

(This project was funded by ACER's income from sales. Dr Commons was seconded from the Victorian Education Department.)

This project involved the development of nearly 2000 multiple-choice test items to suit Year 11 and Year 12 chemistry courses in Australian schools. More than 60 teachers worked with the ACER over three years to develop the Australian Chemistry Test Item Bank. All test items have been tested in Australian schools and approximate facility values have been published with the items, which will permit the teacher assembling a test from the Bank to control the overall difficulty of the test.

Publications and Papers

Commons, C. et al. *Australian Chemistry Test Item Bank*. Volumes 1 and 2. Hawthorn, Victoria: ACER, 1982.

Biology Item Banking Project

Jeffery Sewell (from March 1982)

(This project was funded by ACER's income from sales. Dr Sewell was seconded from the Victorian Education Department.)

Work commenced in March 1982 to develop test material applicable to the third edition of *Web of Life* and to the senior level biology courses of most States.

The first year of the project has been spent developing original multiple-choice items to cover both core and option areas of the HSC

syllabus in Victoria. Items have also been produced by teams working in South Australia and in the Australian Capital Territory. During 1982 over 300 items have been panelled, and trial testing has been conducted in both government and non-government schools throughout Victoria. A variety of item types for Years 11 and 12 will be developed in 1983.

It is anticipated that the project will conclude in March 1984 with the publication of a final collection of items to provide for assessment in both cognitive and psychomotor domains of student performance.

Item Banking

John F. Izard

(This project was funded by ACER's income from sales and by the residue of a grant from the Victorian Education Department.)

The IEA Item Bank co-ordinating centre in Liege, Belgium is developing four types of files. The first provides information on centres developing collections of test questions and undertaking research into item banking approaches and associated theory. The second is a collection of item banks from various publishers. The third file is an International Item Bank. The initial project is a collection of mathematics items classified according to an agreed scheme. This collection will be available for research in each participating country. The fourth file is an inventory of publications which contribute to item banking theory.

The ACER is contributing items to the International Item Bank. The robustness of the model has been investigated and further implementation studies are being carried out in conjunction with the School Achievement Tests project.

Publications and Papers

Izard, J. An Introduction to Rasch Analysis. Paper presented to Annual Conference of School Counsellors, New South Wales Department of Education, Division of Guidance and Special Education, Sydney, July 1981.

Maintenance of Educational Tests

John F. Izard, Graham Ward, Stephen Farish, Allyson Holbrook

(This project was funded by ACER's income from sales. Mr Farish was seconded from the Victorian Education Department.)

English Skills Assessment

The ESA package, which includes two test booklets, a manual and sensitized self-scoring answer sheets, was published in February 1982. ESA aims to identify student strengths and weaknesses in the areas of English language skills and to promote the development of effective teaching programs. In accordance with these aims, diagnostic

information is produced in the manual and on the answer sheets. ESA consists of tests of comprehension, spelling, punctuation and capitalization, usage, sentence structure, vocabulary, and logical relationships. It is intended for use by students in Years 11 and 12 and the first year of tertiary education.

Tests, Publications and Papers

English Skills Assessment (ETS and College Board items adapted by Allyson Holbrook). Test Booklet Part 1; Test Booklet Part 2; Manual; Combined sensitized Answer Sheet/Score Key/Record Form. Hawthorn, Victoria: ACER by arrangement with ETS, 1982.

Progressive Achievement Tests

The re-examination of the Progressive Achievement Tests in Reading Comprehension and in Reading Vocabulary has been completed. Rasch calibration analyses of the tests have been carried out and the fit of the items to the Rasch model investigated. Single Rasch scales were established for each test by linking the two forms to a common scale. A pilot investigation of the reading comprehension scale used data obtained from the validation studies of the intermediate level ability tests to examine the stability of ability measures of the same students obtained from tests composed of different items. No further work has been done on the Progressive Achievement Tests in Mathematics.

Short Clerical Test

Two alternative forms of the *ACER Short Clerical Test, Form C* are being prepared for trial testing in August 1982. This testing will enable equivalent scores to be established for the old and new forms of the test. A manual supplement is to be prepared so that scores on the new forms of the test may be related to the norms published in the 1979 Manual.

Profile of Mathematical Skills

This project, which began in May 1981, was concerned with revising trial testing and norming the *Profile of Mathematical Skills* (POMS) tests for publication by Nelson, Australia. The tests are a series of norm-referenced tests of basic mathematics, for use in primary and junior secondary classes. Prior to the norming study carried out in November 1981, the tests were revised and trial tested in primary and secondary schools in two States.

The tests have been produced at two levels. Level 1 has seven tests with norms for Years 4, 5, 6, and 7; Level 2 has eight tests with norms for Years 6, 7, and 8. Separate norms are provided for each of the tests in the form of standardized scores, percentiles, and stanines. Provision has been made for the direct entry of a student's raw scores on a profile chart which can readily be used to identify the areas of relative strength and weakness. Such analyses can also be made for groups of students.

The Australian norms were based on the test results from samples of about 350 students for each test at each year level involved. The students in each sample came from classes in 50 different schools drawn from all

States except the Northern Territory and included government, Catholic, and independent schools. The samples were stratified with the number of schools proportional to school enrolments in each of the strata and the schools were selected with probability proportional to their size. In the norming study some 18 500 tests were administered to 11 000 students from 370 classes in 150 schools.

Tests, Publications and Papers

Profile of Mathematical Skills Tests: Teachers Handbook. Melbourne: Nelson (Australia), 1982.

Profile of Mathematical Skills Tests, Level 1. Melbourne: Nelson (Australia), 1982.

Profile of Mathematical Skills Tests, Level 2. Melbourne: Nelson (Australia), 1982.

DEVELOPMENT OF TESTS AND INSTRUMENTS FOR USE BY PSYCHOLOGISTS

Revision of the ACER Intermediate Level General Ability Tests

Marion M. de Lemos

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

The manuals for the new *ACER Intermediate Test F* and *Test G* were completed, and also the manual for the adapted version of the *Otis-Lennon School Ability Test, Intermediate Form R*.

Tests, Publications and Papers

ACER Intermediate Test F: Manual for Administration and Scoring. Hawthorn, Victoria: ACER, 1982.

ACER Intermediate Test G: Manual for Administration and Scoring. Hawthorn, Victoria: ACER, 1982.

Otis-Lennon School Ability Test, Intermediate Form R: Manual for Administration and Scoring. (Australian adaptation). Hawthorn, Victoria: ACER, 1982.

Non-Verbal Ability Tests

Helga A.H. Rowe

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

This project involves the development of a domain-referenced battery of non-verbal tests of general and specific abilities. The items contain neither words nor numbers. In content, the geometric shapes, diagrams, picture strips, and other pictorial materials making up the items bear little, if any, relationship to curriculum content and school learning.

Traditionally, group intelligence tests were designed to serve in personnel selection and prediction of academic achievement.

Performance on such tests of general or more specific abilities is generally interpreted on the basis of normative information. Whether the test yields a single score or multiple scores, an individual's performance is interpreted by comparison of his or her scores with those of a reference group. The basic information derived from the intelligence test thus relates to the examinee's relative level of performance on the test compared with the performance of the reference groups on which the test was standardized. Even now, educational decisions tend to be made on the basis of the estimates of intellectual potential provided by the scores on such tests. While traditional intelligence tests may be useful in the context of examinee categorization and labelling, they are unlikely to contribute diagnostic information, or to aid valid and effective counselling towards the improvement of intellectual performance.

The major limitation of traditional group intelligence tests is that they do not provide any interpretation of general ability or aptitudes in terms of the processes or variables which enhance or impede the examinee's performance. In other words, intelligence test scores fail to describe what types of cognitive skills and strategies are at the disposal of the testee, or how he or she approaches a task. If information of this type were available, the results of intelligence tests would enhance selection procedures through increased validity, and provide a useful basis for educational decisions and academic and training programs. In this ACER project, an attempt is being made to produce a language- and culture-fair instrument which provides such information.

The tests contained in the battery were designed to provide a systematic method by which a step-by-step profile can be built, which reflects inter- and intra-individual differences in important cognitive areas. The examiner can thus identify a pattern of cognitive components of the performance as well as the level of intellectual functioning of individuals and groups.

During the past year 16 paper and pencil tests have been developed, each of which aims to measure a defined component of general ability. The choice of aspects of intelligence for inclusion in the battery is founded on published research in the domain, and takes cognizance of recent research concerned with the psychological components of underlying differences in cognitive performance. The construction of the component tests was facilitated by the availability of published research which identifies and describes important dimensions of intellectual functioning, and tasks which may elicit behaviours exemplifying such functioning.

The tests can be classified into the following broad areas: concentration, conceptual, memory, and perceptual abilities. The *concentration* tests assess speed, accuracy, and persistence. They are graded with respect to the attention span required. Memory, perceptual speed, and visual-motor co-ordination are among other factors affecting these tests. *Conceptual* skills assessed include classification, sequencing, rule learning, and application in concrete and symbolic situations. The

ability to analyse and synthesize, to distinguish between essential and non-essential components, and the ability to use step-by-step sequential procedures contribute to the performance on a number of these tests. The set of *memory* tests is made up of short-term and long-term tests of recognition and recall for visual and auditory stimuli. The *perceptual* tests aim to assess the degree to which sensory experience is processed cognitively. Tasks include matching of shape, colour, direction, etc. — analysis and synthesis of visual materials, contrast and constancy, and eye-hand co-ordination.

The tests contain a number of task types which have been found to aid in the discrimination between brain-damaged individuals, and those suffering from presumably psychological disturbance. Data have been analysed for 400 non-referred children aged between 7 and 13 years. Concurrent validity with *WISC-R*, *TOLA*, *Jenkins Non-Verbal Test*, and school achievement was investigated in a representative sample of 225 11-year-olds. Predictive validity is being investigated. Preparations are being made for the testing of Aboriginal groups and other ethnic samples. Representative samples of adults and a small sample of intellectually handicapped persons are being sought. A monograph to accompany the test battery is being prepared. This report will present the general theoretical framework for the series, a discussion of the rationale and procedures relating to each test, validity information, and technical details. The main aim of the report, however, is to integrate the theoretical and practical aspects of the assessment of ability so as to ensure the use of the battery as valid and meaningful.

Tests, Publications and Papers

- Rowe, H.A.H. Intelligence: A Set of Problem-solving Strategies. Paper delivered at Conference on Thinking, University of the South Pacific, Suva, Fiji, January 1982.
- Rowe, H.A.H. Problem Solving. Paper presented at the London Conference of the British Psychological Society, City University, London, December 1981.
- Rowe, H.A.H. Tracing the Dynamics of a Psychological Process. Paper presented at the 9th Annual Experimental Psychology Conference, University of Queensland, Brisbane, May 1982.

Maintenance of Psychological Tests

Josephine C. Jenkinson (to September 1981), Meredith Shears (to December 1981), Marion M. de Lemos (from February 1982)

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

A report on the April norming and validation study of the *ACER Intermediate Test F* was completed and included as an appendix to the Manual for this test.

The *WAIS-R* has been modified for use in Australia, and a supplement for the Australian version of the test has been prepared. This supplement incorporates the revised version of the Information Test and lists the changes made to other items in the test. A modified record form for use with the Australian version of the *WAIS-R* has also been prepared.

Preparations are proceeding for the adaptation and norming of the *Differential Aptitude Tests, Form V* and *Form W*. It is planned to norm the adapted versions of these tests in November 1982 on national samples of students at Years 9, 10, and 11. The *Advanced Form R* of the *Otis-Lennon School Ability Test* and the *ACER Higher Tests ML-MQ* and *PL-PQ* will also be included in this norming program.

Work has continued on the revision and renorming of the *ACER Word Knowledge Test Adult Form B*. Two trial forms (E and F) were administered to approximately 700 applicants for apprenticeship training in Wollongong. Responses to each item have now been coded and punched. Following the analysis of these data, two new forms of the test will be developed to replace the current *Adult Form B*.

Item responses on the *Standard Progressive Matrices*, the *Mill Hill Vocabulary Scale* (Junior Form 2, Set A) and the multiplication and subtraction test administered to the trial test sample for the intermediate level program have been coded and punched. These data will be analysed to obtain information on the item statistics of these tests.

TESTING SERVICES AND PROGRAMS

Australian Scholastic Aptitude Test

Graeme Withers, George Morgan, Allyson Holbrook

(This program was funded from income from users.)

The *ASAT Series K* has been prepared for administration to the Year 12 populations in the Australian Capital Territory, Western Australia, and Queensland. No changes were made to format or structure and the test conforms to the specifications as agreed in 1976.

A meeting of users and their representatives was held in February to discuss a formal agreement re test ownership, finance, and the future of the project. The final reports on Series I and J were tabled and discussed. Item preparation and trial testing took place; the latter was again conducted in New Zealand (Christchurch) in March 1982.

Tests, Publications and Papers

Report on the 1981 Australian Scholastic Aptitude Test (ASAT Series J).
Hawthorn, Victoria: ACER, 1981.

Australian Scholastic Aptitude Test: Series K. Hawthorn, Victoria: ACER, 1982.

ASAT Special Testing Program

Noel McBean, Evelyn Watson

(This program was funded from income from users.)

Tertiary institutions offering courses for mature-age students have continued to make use of the two-hour versions of the Australian Scholastic Aptitude Test. In this program, the ACER supplies tests on hire on dates specified by individual institutions. Subsequently tests are marked at the ACER and scores are reported back to the institutions. Between 1 July 1981 and 30 June 1982, 17 institutions tested 1611 candidates using the tests with humanities content; and nine institutions tested 723 candidates using tests with a maths/science component as well as humanities. During the year a new humanities content test has been produced.

Co-operative Scholarship Testing Program

Evelyn Watson, Noel McBean

(This program was funded from income from users.)

This program has been conducted since 1962 for a number of independent schools in all Australian States. It provides a battery of tests at two levels: Level 1 for entrance to secondary school; Level 2 for continuation beyond either Year 8 or Year 9 (depending on the State). The areas examined at Level 1 are Written Expression, Humanities, and Mathematics. At Level 2, a Science component is included with the Mathematics. The overall regulation of the program resides in a policy committee representing independent schools and the ACER. The administration of the program, including development of tests, test marking, and score reporting is carried out by the ACER. Test scores, standardized by level and by State, are returned to schools. The use made of these scores varies, but it provides an important element in assessing scholarship candidates.

In 1982, more than 12 500 candidates registered for scholarships offered by 110 schools. The candidates sat either at participating schools or at one of the 62 country centres or 44 overseas centres set up by the ACER. The tests used this year are part of the current 1979-84 series.

Development and trial testing of items for use in the next series is an ongoing part of the program.

Year Eleven Entry Test Program

The provision of scholarship tests for independent schools in the Co-operative Scholarship Testing Program at Year 10 level was expanded into a small program with 132 candidates in 10 schools sitting for the tests and with two more schools still to take part.

Miscellaneous Testing Services

Noel McBean, Evelyn Watson

(This program was funded from income from users and income from sales.)

ETS Testing Program

During the year, 25 test administrations were conducted for Educational Testing Service, Princeton, New Jersey. Of these, two were on Sundays, two on Mondays, and one on a Wednesday evening. The remainder were on Saturdays. The number of candidates tested in these sessions approximated 390. The ACER is seen as the source of information about ETS test programs and receives enquiries from all over Australia.

Psychological Corporation Testing Program

The number of candidates who required the services provided by the ACER as a Controlled Test Center of the Psychological Corporation of New York was 27, of whom 11 were tested at interstate centres arranged by the ACER, and 16 at the ACER.

Committee on Overseas Professional Qualifications

COPQ screening examinations are conducted twice each year and ACER continues to mark tests and analyse scores. There were 65 candidates in March and 75 in September. Additional COPQ tests are in production and the ACER has contracted to analyse these trial tests. This has involved the marking of 700 trial papers.

Other Testing Programs

Other service duties undertaken included the marking and analysis of a set of test papers produced by Vic-Swim and the marking and scaling of test papers used by Vic Rail to screen applicants.

PROGRAM OF LIBRARY AND INFORMATION SERVICES

Overview

The activities of the Unit are concentrated in the area of information or documentation collection and dissemination in the subject fields relative to Australian education. In addition, work is undertaken on the general dissemination of information on research and development in education in Australia.

In Australia, there is a vast amount of information generated by the education community as a result of research and school-based activities. Some of this information has only current interest but much of it is and will be useful to further research as well as to policy making and educational practice in Australia. It is desirable that all concerned with educational research and practice should be aware of and have access to this material. The ACER recognized this need 40 years ago when the ACER library was first established in order to collect publications relevant to Australian education, and again in the late fifties when it produced the first issues of the *Australian Education Index* and established the *Australian Journal of Education*.

During this time, there have been radical advances in computer technology available for information storage, retrieval, and dissemination, and in national and international communications. Computers have been used to produce bibliographic data bases which facilitate rapid and efficient access to a vast amount of literature. The developments in telecommunications and the associated reductions in costs have encouraged the use of these data bases by making generation and access cheaper and easier.

The unit continues to occupy a unique position in the Australian education field and is fitted to continue to locate, collect, record, and disseminate information relevant to Australian education. The expertise of the Unit, based on development work in index and data base generation undertaken during the last 20 years, would appear to attract ready acceptance, by the education community, of the ACER as the appropriate organization to supply these services.

The 43rd (February 1981) Australian Education Council meeting resolved to establish a Working Party on Information Retrieval Systems to investigate and make recommendations on the co-ordination of information retrieval systems and to identify compatible core descriptors to be used by the various information networks in Australia. Recommendations included in the report of the Working Party were endorsed by the AEC at its 44th (October 1981) meeting. These recommendations were: (1) compilation of an Australian Education Thesaurus using the *Thesaurus of ERIC Descriptors* as a basis; (2) inclusion of higher degree theses in education in the Australian Education Index data base; (3) the development of a file of curriculum

materials and guides as a sub-set of the Australian Education Index; (4) the preparation of the *Directory of Education Research and Researchers in Australia* as a machine-readable data base to be available through the AUSINET network.

Australian Education Index

Margaret A. Findlay, Elspeth Miller

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

Access to Australian educational information is provided by way of the quarterly publication, the *Australian Education Index*, and the Australian education data base which is available at present for on-line searching through the network, AUSINET. During the period under review, over 2500 items were indexed and added to the file. Documents are selected from a wide range of sources in both published and unpublished forms and include monographs, research reports, conference papers, periodical articles, parliamentary debates, newspaper articles, reviews of books and resources, and tests. The comprehensiveness of the coverage is essential, and a consistent program is maintained to encourage submission of documents for inclusion from authors and publishers. Technological advances are monitored and implemented to facilitate data preparation and to improve the quality of the product. Data preparation is carried out within the ACER, using the in-house word processor instead of contracting a local computer services bureau. Costs of input are reduced and methods of controlling accuracy and speed of input are improved. Commencing with Volume 25, No. 1, March 1982, the publication has been typeset by computer in order to provide a more attractive document.

At the end of June 1982, the number of records in the computerized data base totalled 9000. This is updated quarterly through the year in February, May, August, and November. Usage for the year of the file has increased and totalled 158.85 hours despite a restriction of usage and a reduction of users of the network. A separate data base of the current file of records is available as an update base for current awareness searches. A users manual to the data base was produced and distributed in early 1982.

The co-ordination of the activities of specialized information groups, such as the National TAFE Clearinghouse and the Australian Clearing House on Library and Information Science (ACHLIS) at the Footscray Institute of Technology, with the ACER is maintained to avoid overlap, to enhance the coverage of the data base, and to support the activities of these independent groups. Records submitted by other groups are distinguished with the input centre's identification and they have represented 3 per cent of the total input for the past year. Assistance was given to the National TAFE Clearinghouse in the compilation of the third volume of *Initiatives in Technical and Further Education*.

The development of the Australian Education Thesaurus will necessitate the posting of new terminology through the file. Procedures for the implementation of this activity will be considered.

Publications

- Australian Education Index* (M.A. Findlay and E. Miller, Eds). Vol. 24(3 and annual cumulation); Vol. 25(1,2). Hawthorn, Victoria: ACER, 1981-82.
- Findlay, M.A. *Australian Education Index Data Base (AUSINET): Users Manual*. Hawthorn, Victoria: ACER, 1982.
- Findlay, M.A. Data base compilation — The Australian Education Index. In *Automation and the Smaller Library: Seminar Papers, 19 May 1981*. Melbourne: Library Association of Australia, Special Libraries Section, Victorian Group, 1981, 24-36.
- Findlay, M.A. Document acquisition and input selection — Criteria for selection. In *The Generation and Management of Small-scale Data Bases*. Canberra: Library Association of Australia, 1982, 25-9.

Bibliography of Education Theses in Australia

Margaret A. Findlay, Penny Martin

(This project was funded by the Australian Education Council.)

Since the procedures for compilation and production of the *Australian Education Index* were modified in 1979, theses submitted and accepted for higher degrees in Australian universities and colleges of advanced education have not been included in the *Index* or the data base in AUSINET. Detailed and reliable subject indexing is impossible without reviewing the text or a comprehensive summary of the document. Consequently the content of theses which provide a valuable source of educational research findings had not been documented since 1978.

The Australian Education Council, at its 44th (October 1981) meeting, agreed to the recommendations in the report of the Working Party on Information Retrieval Systems in Education that financial support for the inclusion of higher degree theses in the Australian Education Index data base be provided. The Australian Council for Educational Research was commissioned to undertake this activity.

Libraries of higher education institutions were contacted and requested to supply bibliographic details and abstracts for all theses accepted by their institutions during 1980 in education or related subject fields. The AEI format of entry has been adopted and entries give details of author's name, title of thesis, institution, degree, and acceptance dates. Authors' abstracts are included; modification is made for long abstracts. Subject descriptors are assigned from the *Thesaurus of ERIC Descriptors*.

Records for 200 theses were included in the AEI data base in June 1982. A publication, *Bibliography of Education Theses in Australia* containing the records for the 1980 theses, will be compiled and issued late in 1982.

Library

Margaret A. Findlay (Librarian), Christopher J. Cook, Lula Psiliakos, Elspeth Miller

(The Library was funded in part from the Core Grant, but largely from ACER's income from sales.)

Every endeavour is made by project staff to maintain an efficient library and information service for the research staff of the ACER. Library usage by staff continues to be kept at a high level and 7300 items were borrowed from the collection, 12 per cent increase on the previous year. During the year, requests for interlibrary loans from other libraries totalled 1330.

The library collection has continued to grow steadily to a total of 18 600 titles, and new additions reflect research and development activities in the fields of education relevant to the interests of present ACER research staff. However this year, owing to increasing costs of material, special consideration has been given to the continuation of periodical subscriptions and also the retention of back files of documents. Computerized information searches are undertaken for research staff through Australian and overseas networks, such as AUSINET, DIALOG, and ORBIT by using a dial-up link and terminal.

Special activities during the year have included the compilation of a select list of serial holdings which was distributed to all research staff. Titles on long-term loan to staff have been checked to ensure accurate knowledge of the whereabouts of library material and some titles which cannot be located have been replaced if still relevant to ACER research.

Under review is the computerization of the ACER catalogue to reduce costs and effort in the production of catalogue cards and the possibility of wider dissemination of the ACER catalogue in either hard copy or microfiche format. The combination of cataloguing and indexing functions of documents for the Australian Education Index and the library catalogue are being considered in order to reduce costs of these functions.

Australian Education Thesaurus

Margaret A. Findlay, Geoff Lavender

(This project was funded by the Australian Education Council. Mr Lavender was seconded from the Secretariat of the AEC.)

Education information retrieval services in Australia have used a number of tools for subject indexing because there has been no controlled vocabulary of Australian educational terminology. The *Australian Education Index*, the National TAFE Clearinghouse, the Directory of Education Research and Researchers in Australia and the

Western Australian Education Department's Information Analysis Centre, among others, have used the *Thesaurus of ERIC Descriptors* in modified form. However, the modifications are often not consistent and there have been a number of in-house and specialized services which have attempted to develop their own word stocks for indexing. There is, therefore, a need for a core thesaurus of terms suitable for indexing Australian educational literature, which is based on the terminology of education in Australia, and is widely available for use in existing information retrieval systems and in the development of new services.

The ACER was commissioned by the AEC to develop such a thesaurus by a systematic and thoroughgoing revision of the *Thesaurus of ERIC Descriptors* (now in its ninth (1982) edition). The ACER will print and publish the Australian thesaurus and will investigate the feasibility and desirability of making it available online through AUSINET. Procedures will be developed to ensure that the thesaurus is responsive to the changing nature and literature of education and to the indexing requirements of thesaurus users.

In order to ensure that as far as possible terms in the Australian thesaurus will be accepted by users, the review phase will incorporate the critical evaluation of terms and their displays by subject specialists. Expert reviewers have been selected for each of the so-called ERIC 'descriptor groups' and invited to participate. A sample of researchers and information workers in education departments and authorities will also be asked to review the draft.

Arrangements are being made with the ERIC Processing and Reference Facility in the United States for the use of the Facility's thesaurus system for automatic manipulation of thesaurus entries and the creation of secondary descriptor displays.

Australian Education Review

John P. Keeves

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

During the past year it has proved possible to publish two numbers of the review. It is hoped that from this time on at least two numbers will be prepared for publication each year by ACER staff or by invited contributors.

Publications

Collins, C.W. and Hughes, P.W. *Where Junior Secondary Schools are Heading: Research and Reflections*. (Australian Education Review, No.16). Hawthorn, Victoria: ACER, 1982.

Praetz, H. *Public Policy and Catholic Schools* (Australian Education Review, No.17). Hawthorn, Victoria: ACER, 1982.

set: Research Information for Teachers

Peter Jeffery

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

The recruitment of Australian authors who might prepare an article for inclusion in *set* has continued as an important and significant component of the ACER's program of dissemination of research findings. Help with this work of recruiting contributors is received from the Advisory Committee, comprising a central Committee in Melbourne and corresponding members nominated by the State Institutes within each State. It has been unfortunate that delays in shipping the printed copies from New Zealand to Australia have prejudiced the acceptability of the collection and reduced the number of regular subscribers.

General Information Services

Robin G. Rowlands (Honorary Staff Member), John P. Keeves, Phillip A. McKenzie

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

A review of recurrent education from an economic perspective has been extensively revised for publication. Three issues of *State Institute News* have been compiled for circulation to members of the State Institutes of Educational Research. Work has commenced on a review of curriculum change in the teaching of physics at the Year 12 level in Australian schools, and work was undertaken on the preparation of a review article on the diffusion of knowledge in education.

Publications and Papers

Keeves, J.P. The diffusion of useful knowledge in educational research. *Australian Educational Researcher*, 1982, 9(2), 5-21.

McKenzie, P.A. *Recurrent Education: An Economic Perspective*. Hawthorn, Victoria: ACER (in press).

The International Encyclopedia of Education: Research and Studies

John P. Keeves

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

Many members of ACER staff have been invited to contribute articles to the *International Encyclopedia of Education: Research and Studies* which is being edited by Professor Torsten Husén of the International Institute of Education, Stockholm, and Professor Neville Postlethwaite of the

University of Hamburg. In addition, the editorial work for the section on Research Methodology has been undertaken. This has involved inviting 90 authors to contribute articles on selected topics associated with the methodology of educational research. Articles contributed by ACER staff members and not related to specific projects are listed below.

Publications and Papers

- Findlay, M. Information for educational research. In T. Husén and T.N. Postlethwaite (Eds), *International Encyclopedia of Education: Research and Studies*. Oxford: Pergamon Press (in press). [2000 words]
- Keeves, J.P. Diffusion of knowledge in education. In Husén and Postlethwaite, op. cit. [6000 words]
- Keeves, J.P. (with Marklund S.). Priorities in educational research. In Husén and Postlethwaite, op. cit. [5000 words]
- McKenzie, P.A. Australian education. In Husén and Postlethwaite, op. cit. [5000 words]
- Williams, T.H. Structural equation models. In Husén and Postlethwaite, op. cit. [6000 words]

PROGRAM OF SURVEY AND PSYCHOMETRIC SERVICES

Survey Research Services

Malcolm J. Rosier, Kenneth N. Ross, Christopher M. Kay (from February 1982)

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

The Survey and Psychometric Services Unit exists to provide assistance on request to members of ACER staff and, under certain conditions, to persons from other institutions. One of the key functions of the unit is to maintain the ACER Sampling Frame, a list of all primary and secondary schools in Australia with associated student enrolment data.

Other institutions assisted during the period under review include the Victorian Education Department, the School Medical Service (Victoria), the Child, Adolescent and Family Health Service (South Australia), and the Institute of Family Studies. Dr Rosier has continued to provide assistance and advice as International Sampling Referee for the Second IEA Mathematics Study.

In addition, staff of the unit have prepared articles relating to the survey research for the *International Encyclopedia of Education: Research and Studies*.

Publications and Papers

Rosier, M.J. Sampling design for science study. In Australia. Commonwealth Schools Commission, *Science Learning Areas in Australian Schools*. Canberra: 1982, Appendix II.

Rosier, M.J. Survey research methods. In T. Husén and T.N. Postlethwaite (Eds), *International Encyclopedia of Education: Research and Studies*. Oxford: Pergamon (in press). [1500 words]

Ross, K.N. Sampling. In Husén and Postlethwaite, op. cit. [8000 words]

Ross, K. N. Sampling errors. In Husén and Postlethwaite, op. cit. [1300 words]

ASSP Validation Studies

Kenneth N. Ross, John Balla

(This project was included in the ACER Core Program. Mr J. Balla was a ERDC Fellow working on secondment at the ACER.)

In 1975, and again in 1980, the ACER conducted national studies of the literacy and numeracy skills of Australian 10-year-old and 14-year-old students. The tests that were used on these two occasions featured a common core of items which has provided an opportunity to place them 'on the same scale' according to the Rasch test calibration model. A

comparison of achievement over time will then be able to be made in terms of the 'log-odds' metric of the Rasch model — rather than considering only the subset of items which form the common core.

The work carried out on this project has included a review of the conceptual and methodological issues associated with the use of the Rasch model for monitoring performance over time, and initial work has been undertaken which shows that, at the 10-year-old level, the items in the Numeration Test can be effectively scaled for both 1975 and 1980 but the stability of the estimates is dependent on size of samples used in scaling.

Publications and Papers

Balla, J. The Rasch Scaling of the ASSP 10-year-old Numeration Tests in 1975 and 1980. Hawthorn, Victoria: ACER, 1982. (mimeo.)

Statistical Analysis and Computing Services

Christopher M. Kay (from February 1982), Malcolm J. Rosier

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

The ACER continues to use three computing facilities. The in-house Spectra-10 is used for small jobs. Work involving the maintenance of larger data files is carried out on the FACOM computer at the Swinburne College of Technology via two terminals located at the ACER. Larger jobs can also be carried out using a remote job entry link to an IBM/370 computer operated by ICI.

Publications and Papers

Rosier, M.J. (and Anderson, J.). Data banks and data archives. [4000 words] In T. Husén and T.N. Postlethwaite (Eds), *International Encyclopedia of Education: Research and Studies*. Oxford: Pergamon (in press).

Studies in Criterion-referenced Measurement

George Morgan

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

The main aims of the project are to keep the ACER informed of developments in the fields of criterion-referenced testing and latent trait test theory, and to undertake theoretical and practical research in these areas.

During the past year, a major concern of the project has been to carry out Bayesian analysis of some latent trait test models which are currently being applied in analyses of achievement test data. Bayesian methods may be useful in situations where the number of persons being tested

and/or number of items being used are small. When this occurs, prior information about person abilities and item difficulties may be combined with information from the test data to obtain improved estimates of person abilities and item difficulties. To date, much of the work has involved exploring various possible formulations to represent such prior information, and additional work has concentrated on the derivation of posterior distributions of person abilities and item difficulties, on which subsequent inferences might be based.

A major activity of the project was involvement in the preparation of the book, *The Improvement of Measurement in Education and Psychology*, edited by Professor Donald Spearritt of the University of Sydney. The book, which reports the proceedings of the ACER Invitational Seminar held in 1980, examines aspects of latent trait test theory and application.

Publications and Papers

Morgan, G. Expectancy tables. In T. Husén and T.N. Postlethwaite (Eds), *International Encyclopedia of Education: Research and Studies*. Oxford: Pergamon (in press). [2000 words]

PROGRAM OF ADVISORY SERVICES

Educational Advisory Services

Peter Jeffery, Barbara Johnson (to February 1982), Judith Eppinger (from March 1982)

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

The emphasis throughout this year has been on systematic dissemination reaching out from ACER to convey information and advice to a wide range of educators rather than responding in an ad hoc manner to requests for assistance. This change in emphasis has been achieved while maintaining the traditional provision of advice as and when requested.

In the latter half of 1981, expansion of the provision of displays of ACER resources was attained with positive responses received from the hundred or so teachers centres which accepted the offer of a display. Workshops were mounted on a wider scale too, beginning with two very successful seminars at the ACER centred on Dr Helga Rowe's completed project on early identification of children's learning problems. Other seminars at nearby locations followed. During 1982 the emphasis has been on travelling to more distant centres on ACER initiative as well as by invitation.

An extensive tour, encompassing Adelaide, Alice Springs, Darwin, Cairns, Townsville, Rockhampton, and Brisbane, by the senior advisory officer, who conducted workshops in each centre, proved highly successful in communicating information on research and materials to a large number of workers in education in and around those centres. Follow-up activities have spread information still further via contacts made in each place. The contacts stimulated by advisory visits included invitations for further workshops by advisory and research staff and involvement in trial testing of materials being developed (for example, the *ACER Non-Verbal Ability Tests*).

Dissemination further afield was continued with a display in Port Moresby and visits to selected centres in Papua New Guinea where the foundations were laid for maintaining contacts over a longer period.

Advisory staff are now beginning to notice the benefits arising from the provision of research information through *set*. Many items from *set* are proving useful in dealing with on demand requests for help on a range of topics. *set* items are also being used to supplement other documents prepared for the Annotated Catalogue and Annotated List of Books from ACER. Both of these annotated bibliographies have been updated to keep pace with the constantly expanding range of books, tests, and materials which the ACER distributes to assist educational development.

Advisory staff have been responsible for writing the descriptive contents of the many informative brochures and leaflets mailed to educational institutions to inform them of recently published teaching aids available from the ACER. Staff have also continued to assist in the selection of materials from Australia and overseas which the ACER could distribute. The ACER uses the review reporting system as a method of supplying a truly professional advisory service by actively encouraging reviewing and by distributing the reports with sample materials so that educators can assess the merits of competing products.

The ACER test library continues to be an essential support for advisory services by providing inspection-copy services for tests and selected curriculum materials. Despite earnest encouragement of the establishment of test libraries in other institutions in Australia, the ACER's test library remains the largest and most comprehensive in the southern hemisphere.

Advisory staff have supervised and organized the initial launching and marketing of all ACER publications and overseas materials which are distributed in Australia. This has involved the preparation of press releases, invitations to review, publicity contacts, and the dispatch of information leaflets to varying markets according to the publication.

Publications and Papers

ACER Newsletter No.42, No. 43, and No. 44.

ACER Annotated Catalogue of Educational Tests and Materials.

ACER Educational Catalogue.

ACER Books — An Annotated List.

ACER Test Library Annotated Bibliography.

Psychological Advisory Services

Diana Bradshaw (to December 1981), Josephine Jenkinson (to September 1981), Meredith Shears (from October 1981), Christine Martin (from March 1982)

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

Attempts have been made throughout the year to improve the dissemination throughout Australia of information about all aspects of the ACER. Much was achieved by the extensive tour of central and northern Australia by the senior advisory officer. Through contacts made on this trip, information about ACER's products and services has been sent to psychologists and other interested professional workers. This accounts for some of the increase in applications for registration as test users and for an increase in the number of people on the mailing lists for different advisory publications. A total of 669 applications for registration were processed this year, and during 1982 the register of qualified test users has been upgraded to allow for easier access to the filed information. A system for updating information on the cards has

also been developed. In an attempt to keep the register as up-to-date as possible, information on the cards is routinely checked when individuals or organizations make enquiries.

Two issues of the *ACER Bulletin for Psychologists* were prepared. Before her retirement in December, Mrs Bradshaw edited the August 1981 issue. Diana Bradshaw had been editor of this publication since its inception in 1963 and her contribution to the provision of information about psychological tests has been greatly appreciated by psychologists in all parts of Australia.

As well as the usual advisory enquiries on tests and their use, there has been an increased interest shown in certain testing areas. There have been considerably more enquiries about tests suitable for selection of both clerical personnel and people working in all areas of computing. A great deal of interest has also been shown in the evaluation of gifted children and the related programs.

Publications and Papers

ACER Bulletin for Psychologists No.30 August 1981, No.31 April 1982.

ACER Psychological Catalogue 1981-82.

ACER Psychological Price List 1982.

PUBLISHING

Don Maguire, Bronwyn Hay, Marcel Leman, Craig Dowsett (to March 1982), Louise Coutts (from March 1982)

AUSTRALIAN JOURNAL OF EDUCATION

The *Australian Journal of Education* has continued under the editorship of Professor Kevin Marjoribanks of the University of Adelaide. The changed format of the journal and the feature articles by invited authors have been highly commended on many occasions. The journal has remained an important outlet for the publication of reports of research undertaken within Australia.

PUBLISHING ACTIVITIES

The publishing program this year was notable for the production of *The Improvement of Measurement in Education and Psychology: Contributions of Latent Trait Theories*, edited by Donald Spearritt. The publication recorded the proceedings of the Council's Golden Jubilee Year Invitational Seminar held on 22-23 May 1980. The extensive use of mathematical symbols in the text made the publication of this work a demanding and difficult task.

The productivity of the Unit was extended by the publication of two numbers of the *Australian Education Review*, three *ACER Research Monographs*, five general publications, and the first work in Studies in the Philosophical and Social Foundations of Education. In test publication, 12 new sets of tests were produced, including the *ACER Early School Series* which, in itself, involved the production of 10 separate tests with associated score keys and directions for administration. The handbook for this series, *Early Identification and Intervention: A Handbook for Teachers and School Counsellors* by Helga A.H. Rowe is available as a separate monograph. Tests published under the Testing Services Program were extended to cover the *Year Eleven Entry Tests* and the Nauru version of the *Co-operative Scholarship Testing Program*. Similarly the *Australian Scholastic Aptitude Test* production was extended to cover the *Australia Test of Written Expression* and the *Australian Scholastic Aptitude Test 75-82*. Our involvement in test item banking continued with the publication of some 2000 chemistry items in two volumes, *Australian Chemistry Test Item Bank*. The policy of publishing Australian editions of overseas works by arrangement with publishers such as Psychological Corporation (*General Clerical Test*), Educational Testing Services (*English Skills Assessment*), and Thomas Nelson, (*Profile of Mathematical Skills*) was continued.

The Division has assisted in the thrust towards greater dissemination of publications, from both the ACER and others for whom the ACER is agent, by the design and production of many more advisory services and sales promotional materials than in previous years. These include a new format of the *ACER Educational Catalogue* and a completely new *AGS/ACER Catalogue of Educational Materials*.

Books, Reports, and Periodicals Published

(a) Books, Reports, and Papers

- The Improvement of Measurement in Education and Psychology: Contributions of Latent Trait Theories* edited by Donald Spearritt (The Australian Council for Educational Research Golden Jubilee Year Invitational Seminar 22–23 May 1980).
- Listening Aids through the Grades* by David H. and Elizabeth F. Russell. Revised and enlarged by Dorothy Grant Hennings. Australian adaptation by Pat McLean. Adapted and reprinted for distribution in Australia and New Zealand by special permission of Teachers College Press, New York.
- Reading Aids through the Grades*, Fourth edition by Anne Marie Mueser. Australian adaptation by Pat McLean. Adapted and reprinted for distribution in Australia and New Zealand by permission of the original publisher, Teachers College Press, New York.
- The Early Childhood Education of Aboriginal Australians: A Review of Six Action-Research Projects* by G.R. Teasdale and A.J. Whitelaw.
- Education for Rational Understanding: Philosophical Perspectives on the Study and Practice of Education* by Brian Crittenden (Studies in the Philosophical and Social Foundations of Education edited by J.V. D'Cruz and P.J. Sheehan).
- Understanding Classroom Behaviour* by Maurice Balson.
- The Quality of School Life* by Trevor Williams and Margaret Batten (ACER Research Monograph No. 12).
- Perceptions of the Quality of School Life: A Case Study of Schools and Students* by Margaret Batten and Sue Girling-Butcher (ACER Research Monograph No. 13).
- From School to Tertiary Study: Transition to College and University in Victoria* by Gerald Elsworth, Neil Day, Rosalind Hurworth, and Jana Andrews (ACER Research Monograph No. 14).
- Where Junior Secondary Schools are Heading: Research and Reflections* by Cherry W. Collins and Phillip W. Hughes (Australian Education Review No. 16).
- Public Policy and Catholic Schools* by Helen Praetz (Australian Education Review No. 17).
- Towards Equality: Progress by Girls in Mathematics in Australian Secondary Schools* by Jillian D. Moss (Occasional Paper No. 16).
- A Select and Annotated Bibliography of Research into Multiple-choice Testing, 1970 through 1980* by Richard Bell and Graeme Withers. Available on microfiche only.

Australian Education Index Data Base (AUSINET): Users Manual
compiled by Margaret A. Findlay.

(b) Periodicals

Australian Education Index compiled and edited by Margaret A. Findlay and Elspeth Miller.

Vol. 24 No. 3 September 1981, Vol. 24 Cumulation 1981, Vol. 25 No 1 March 1982, Vol. 25 No. 2 June 1982.

The Australian Journal of Education edited by Kevin Marjoribanks.

Vol. 25 No. 2 August 1981, Vol. 25 No. 3 November 1982, Vol. 26 No. 1 April 1982.

ACER Newsletter edited by Peter Jeffery.

No. 42 July 1981, No. 43 November 1981, No. 44 April 1982.

Bulletin for Psychologists

No. 30 August 1981 edition by Diana Bradshaw, No. 31 April 1982 edited by Meredith Shears.

(c) Advisory Services/Sales Publications

ACER Annotated Catalogue of Educational Tests and Materials (revised edition).

ACER Educational Catalogue 1982.

ACER Psychological Price List 1982.

STET Leaders Manual — Sampler.

AGS/ACER Catalogue of Educational Materials.

ACER Psychological Catalogue 1981-82.

Brochures and Order Forms: Waxing Lyrical about Poetry; Two Popular Resource Books; Two Superb Early Learning Programs; Diagnostic Difficulties in Reading — Two New Aids; Australian Journal of Education; Proof Reading Tests of Spelling; ACER Early School Series; English Skills Assessment; ACER Spelling Test Years 3-6; Systematic Training for Effective Teaching; My World; Peabody Language Development Kit; Study without Tears; Public Policy and Catholic Schools.

Tests Published

(a) Testing Services Publications

Co-operative Scholarship Testing Program: Candidates Registration Form; Candidates Information Bulletin; List of Centres; Tests — Written Expression Levels 1 and 2, Mathematics Level 1, Humanities Levels 1 and 2, Mathematics and Science Level 2; Answer Booklet — Level 1 and Level 2.

Year Eleven Entry Tests (YEET 1982): Information Bulletin; Answer Booklet; Test 1 — Written Expression; Test 2 — Humanities Comprehension and Interpretation; Test 3 — Mathematics and Science; Test 4 — Written Expression.

Co-operative Scholarship Testing Program, Nauru — Upper Level and Lower Level: Tests 1 and 4 — Written Expression; Test 2 — Reading; Test 3 — Mathematics.

Australian Scholastic Aptitude Test Series K — Book I, Book II, and WA version. Photographic masters forwarded to States for printing.

Australian Test of Written Expression.

ASAT (ACT): Students Information Bulletin. Sample Collection of Questions (including Answer Sheet and Score Key).

Australian Scholastic Aptitude Test 75 — 82: Test Booklet; Answer Sheet.

(b) Diagnostic Tests, Achievement Tests, and Teaching Aids

General Clerical Test (Australian edition). Published by arrangement with The Psychological Corporation.

ACER Spelling Test Years 3–6 (Forms X and Y). Test Cards (8 off); Analysis Charts (4 off); Answer Sheets; Handbook.

Test of Science-related Attitudes (TOSRA) by Barry J. Fraser. Set of Test Cards; Answer Sheets; Score Key; Handbook.

ACER Early School Series: Tests, Score Keys, and Directions for Administration for Auditory Discrimination; Recognition of Initial Consonant Sounds; Verb Tense; Prepositions; Pronouns; Comprehension; Negation; Word Knowledge; Figure Formation; Number Tests.

Early Identification and Intervention: A Handbook for Teachers and School Counsellors by Helga A.H. Rowe.

English Skills Assessment (ETS and College Board items adapted by Allyson Holbrook): Test Booklet Part 1; Test Booklet Part 2; Manual; Combined sensitized Answer Sheet/Score Key/Record Form. Published by arrangement with ETS.

ACER Higher Tests ML–MQ (2nd edition) and *PL–PQ*: Tests ML and MQ; Tests PL and PQ; Manual; Score Keys (4 off).

Profile of Mathematical Skills (POMS) Australian edition by Graham Ward: Test Booklet, Parts I and II; Teachers Handbook. Camera-ready art supplied to Thomas Nelson.

ACER Listening Test for 14-year-old Students (14L): Teachers Handbook; Analysis Chart; Answer Booklet; Audio-cassette.

ACER Listening Test for 10-year-old Students (10L): Teachers Handbook; Analysis Chart; Answer Booklet; Audio-cassette.

Australian Chemistry Test Item Bank Volumes 1 and 2.

Reprints

There were 307 separate reprints during the year including *Childrens Depression Scale*.

DISTRIBUTION SERVICES

Ian Horton, Alan Wilkins

The budgeted sales figure set for the financial year 1981-82 of \$1.8 million was seen as a formidable task in the light of the ups and downs of the previous year's trading. Indeed the first half of the year saw no real increase in sales required to achieve the target figure. Trading began to pick up substantially early in 1982. As a result, the new year brought with it a high level of orders which has remained consistent right through to the end of the financial year. This resulted in the budgeted sales figure of \$1.8 million being exceeded and the overall sales figure was close to \$2 million dollars.

In terms of the product catalogue, the highest income earner was *Systemtic Training for Effective Parenting* (STEP), including the sale of nearly 10 000 Parents Handbooks. Ranking second was the *Wechsler Intelligence Scale for Children* (WISC-R), followed by the ACER titles, *Primary Reading Survey A-D* and *Progressive Achievement Tests A and B*. A notable increase in popularity was shown for *Program for Assessing Youth Employment Skills* which was released early in 1981. The *ACER Spelling Tests Years 3-6* released late in 1981 was a most successful item. The title *Becoming Better Parents* proved to be again the most successful book sold throughout the year.

The ACER continued throughout 1981-82 to stock and promote additional new products, both internally published as well as from overseas publishers. These have exceeded 40 in number plus their associated component parts, and several of the titles have proved immediately successful and have contributed in a significant way to the overall sales total. Some examples of successful new ACER items include *ACER Spelling Tests*, *ACER Early School Series*, *ACER Intermediate Test G*, *ACER Listening Tests*, and *English Skills Assessment*. Some of the new items from agency agreements with overseas publishers include *Systematic Training for Effective Teaching* (STET), *Wechsler Adult Intelligence Scale* (WAIS-R), *Peabody Language Development Kits*, *Stanford Diagnostic Reading Tests*, and *Proofreading Tests of Spelling* (PRETOS).

FINANCE

The grants received from the Commonwealth and State Governments amounted to a combined total of \$372 392. This sum represented a very significant increase above the level of the previous year. Nevertheless the marked increases in salary for staff on both university and Commonwealth Public Service awards, more particularly the very substantial back-pay components, have been of great concern. The ACER operates, as far as is possible, on a balanced budget for each financial year, and the paying of salary increases that are backdated into a previous financial year imposes a very severe strain on the Council's finances. Following the Executive Committee Meeting on April 1 1982, a Working Party of six members of staff was established to investigate ways in which the payment of the back-pay component of salary increases could be made. The Working Party came to grips with the many uncertainties in the ACER's budget, and proposed appropriate measures. However, during the time the Working Party was meeting, the Council's finances steadily improved as a consequence of greatly increased trading, and the payment of the back-pay became possible. However, the coming financial year could also be one of great uncertainty, particularly if all salary award claims are made together with a substantial back-pay component.

CONCLUSION

The past year has been a difficult one for most educational institutions in Australia. However, the problems that the ACER has faced have been shared with universities, colleges of advanced education, and schools. The resources available for research and development have diminished and as a consequence the number of staff employed by the ACER has fallen. To remain viable, it has been necessary for the prices of the goods and services that we provide to rise and for us to economize wherever possible. Staff who have retired or resigned have, if at all possible, not been replaced, and over the years we have had a gradual upward creep in the levels of seniority of staff. Furthermore, staff who might wish to seek new avenues of employment and advancement are finding that appropriate positions are no longer being advertised, and there would appear to be little likelihood of change in the foreseeable future. These issues have been debated by Council, the Executive Committee, and the staff on many occasions. In order to inform debate, we present tables of facts and figures that will show the changes that are occurring within the ACER.

Contributions to Council Funds

The Council acknowledges, with thanks, the following contributions received during the financial year ending 30 June 1982.

Australian Governments: General Grants for Research

Commonwealth	\$370 000
New South Wales	\$125 000
Victoria	\$101 084
Queensland	\$ 56 980
South Australia	\$ 34 040
Western Australia	\$ 31 561
Tasmania	\$ 10 989
Northern Territory	\$ 2 738

Special Grants

Grants to specific projects were made by:

Bureau of Labour Market Research	\$ 12 000
Commonwealth Department of Education	\$ 70 000
Commonwealth Tertiary Education Commission	\$ 10 000
Curriculum Development Centre	\$ 30 000
Northern Territory Department of Education	\$ 167
Queensland Department of Education	\$ 518
Victorian Education Department	\$ 50 000
Victorian Post Secondary Education Commission	\$ 22 500
Victoria, Technical and Further Education	\$ 9 472
University of Queensland	\$ 1 950
National Institute for Educational Research, Tokyo, Japan	\$ 23 089

Donations to the ACER Scientific Research Fund

Miscellaneous	\$ 15 000
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99 **Table 1 ACER – Income, Expenditure, and Trading, 1972–73 to 1981–82**

Year	Income			Research and development expenditure	Trading total turnover
	Core grant	Funded projects	Service projects		
	\$	\$	\$	\$	\$
1972–73	140 010	96 325	456 507	817 061	622 435
1973–74	267 018	165 253	587 590	1 097 030	722 525
1974–75	375 000	311 000	157 000	1 116 500	992 643
1975–76	422 979	426 008	199 245	1 221 558	1 101 050
1976–77	431 974	286 439	162 639	1 100 311	1 263 156
1977–78	520 000	104 071	184 114	1 059 150	1 441 131
1978–79	550 000	280 293	199 830	1 294 193	1 403 015
1979–80	590 000	345 474	218 581	1 451 825	1 577 876
1980–81	638 000	314 742	246 814	1 495 562	1 658 446
1981–82	732 392	209 913	295 717	1 583 540	1 987 098

Table 2 Staff Employed at the ACER: 1 January 1974 to 1 January 1983 (equivalent full-time)

Year	Research and development								Non-research staff						Total
	Director and Assistant Directors	Chief Research Officers	Senior Research Officers	Research Officers and Research Assistants	Advisory	Library	Honorary and seconded	Sub-total	Administration and Accounts	Distribution Services	Publishing	Office	Clerical assistants	Sub-total	
1974	3	←	21	→	4.0	4.0	4.0	36.0	7.0	11.5	2.0	17.0	6.0	43.5	79.5
1975	3	5.0	7	13.8	3.5	4.0	4.0	40.3	7.0	11.5	2.0	18.5	6.0	45.0	85.3
1976	2	6.9	10	13.0	3.7	3.6	4.0	43.2	7.5	15.0	3.0	17.0	4.0	46.5	89.7
1977	1	6	10	8	3.7	3.6	4.0	36.3	5.0	13.8	3.7	15.0	5.0	42.5	78.7
1978	3	6	10	8	3.7	3.6	4.0	38.3	5.0	13.8	3.7	13.0	5.0	40.5	78.8
1979	3	4	15	13	3.7	3.6	3.0	45.3	5.0	13.8	3.7	14.0	4.0	40.5	85.8
1980	3	4	15.6	10.4	3.7	3.6	5.0	45.3	5.2	13.8	3.7	14.1	4.2	41.0	86.3
1981	3	4	12.5	5.8	3.8	3.6	8.8	41.5	5.2	13.8	3.7	13.1	4.2	40.0	81.5
1982	3	4	12.5	3.5	3	3.6	9.0	38.6	5.2	13.8	3.7	11.3	3.2	37.2	75.8
1983	3	5	11.6	3.5	3	3.6	9.0	38.7	4.2	13.8	3.7	10.2	4.2	36.1	74.8

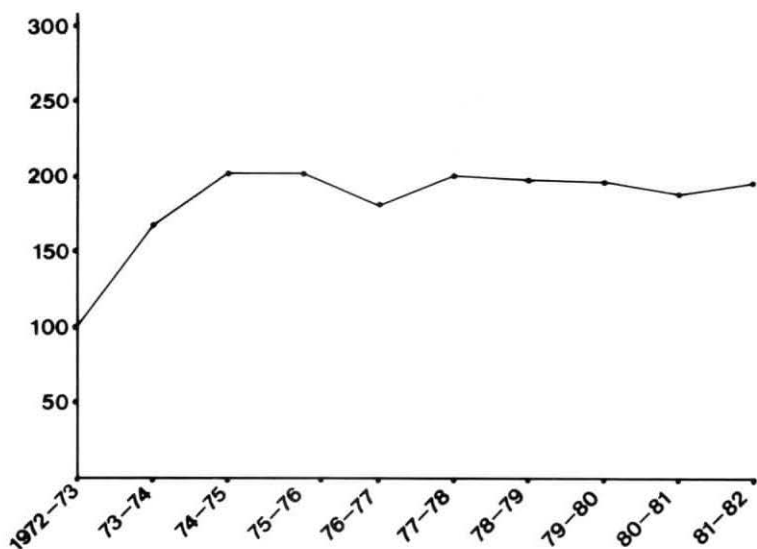


Figure 1 Core Grant, 1972-73 to 1981-82 (Expressed in 1972-73 Prices)

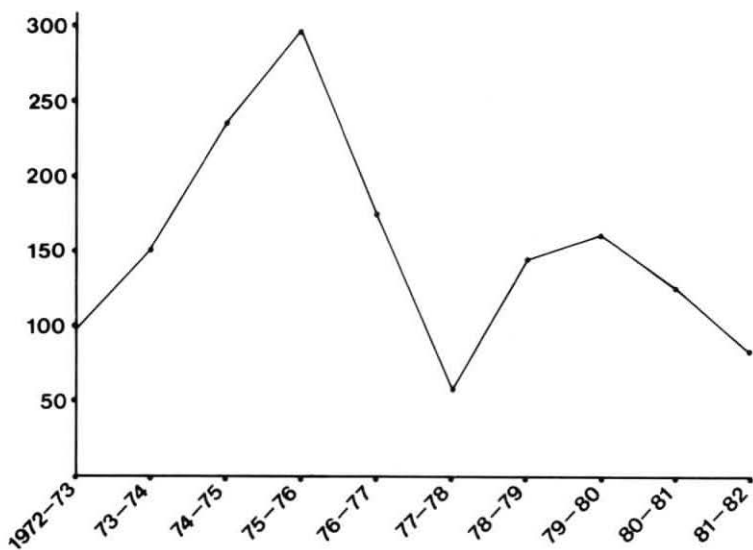


Figure 2 Funded Projects, 1972-73 to 1981-82 (Expressed in 1972-73 Prices)

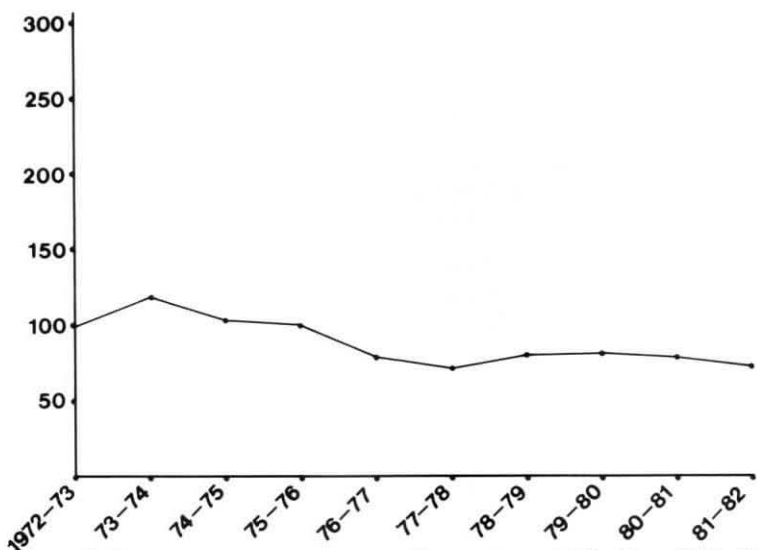


Figure 3 Research and Development Expenditure 1972-73 to 1981-82 (Expressed in 1972-73 Prices)

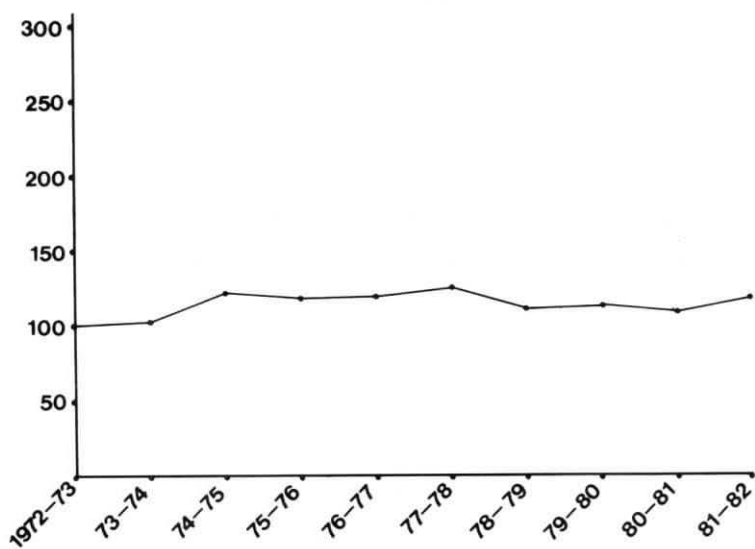


Figure 4 Trading Turnover 1972-73 to 1981-82 (Expressed in 1972-73 Prices)

ACER Staff

(as at 1 July 1982)

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John P. Keeves, BSc, DipEd, MEd, PhD, fil dr, FACE, FASSA

ASSISTANT DIRECTORS

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Trevor H. Williams, BSc, DipEd, BA, MA, PhD, MACE

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Christopher M. Kay, BSc, DipEd

Geoffrey B. Lavender, BA(Hons), GradCertEd, GradDipLib

Janice J. Lokan, BA, DipEd, PhD, MAPsS, MIAAP

Noel McBean, BA, DipEd (part-time)

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Kevin J. Piper, BA(Hons), DipEd, MEd

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Kenneth N. Ross, BSc, MEd, PhD

Helga A.H. Rowe, BA(Hons), PhD, MAPsS, MIAAP

Robin G. Rowlands, BA, MEd, PhD, FACE (honorary member of staff)

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Jenny Slater, BA, GradDipSecStuds (part-time)

*Jackie Stanyon, BA(Hons), DipEd

Arnold Vander Werf, DipTeach, GradDipTeach

A. Graham Ward, MA, MEd

*Lee Waddell, BA, MA, Teaching Credential

Evelyn Watson, BA

Graeme P. Withers, BA, ACTT

*Seconded staff from the Victorian Education Department

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Peter Jeffery, TPTC, BA, MEd (Head of Unit)
Pamela Burns (part-time)
Judith Eppinger, TPTC
Christine Martin, MA, DipEd, MAPsS (part-time)
Meredith Shears, BA(Hons), DipEd

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Christopher J. Cook, BA(Hons), ALAA
Elspeth Miller, BA(Hons), GradDipLib
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Betty J. Segar (part-time)

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Louise Coutts, DipArt & Design (Graphic Design)
Bronwyn Hay, BA(Hons) (part-time)
Marcel Leman

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Phyllis M. Staurengi, BA, BCom (Accountant)
Ruth Ambrose
Marie Crisp
Fay Harvey (part-time)
May Young

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Peg Engellener (part-time)
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Peter Gale
Stan Gale
Jan Gardiner
Judy Gilder
Peter Gilder
Jill Harding
Steve O'Neill
Maisie Peel
John Wilson

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Win Boyce
Margaret Taylor
Yvonne Allen (part-time)

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Judith Clark
Gwenneth Dobell (part-time)
Gloria Locock
Margaret Miller
Joanne O'Rourke
Rhonda Redfern (part-time)
Beatrice Sciberras
Carol Shackleton (part-time)

CLERICAL AND TECHNICAL ASSISTANTS

Ruth Jeffery, TPTC
Anne Lowry
Robyn Sperling

State Institutes of Educational Research

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 practices 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

Office Bearers

Patron: Sir Harold Wyndham

President: Dr John Harvey

Vice-Presidents: Associate Professor N. Baumgart, Ms Susan Groundwater-Smith, Mr R. Cutts

Secretary: Mr I. Burnard

Treasurer: Dr Beth Southwell

Library-Research Officer: Dr J. Barrett

Delegate to ACER: Associate Professor R. Debus

Advisory Editor of The Australian Journal of Education: Dr J. Sheppard

Committee Members: Dr W. Donovan, Dr L. Higgins (*set Adviser*), Ms Gail Macleod, Mr J. Relich, Mr J. Shellard (*Editor, Bulletin*), Dr I. Smith, Mr A. Watson

Meetings

15 July 1981. Education research seminar, East Sydney Technical College, 'Confronting some critical issues': Mr P. Lemon, NSW Privacy Commission, 'The right to privacy and the right to know'; Dr T. Williams, ACER, 'Secondary data analysis'; Dr W. Donovan, ACT Schools Authority, 'The practical realities of applying a code of ethics for research in state departments of education'

21 August 1981. Mr S. Dunn, 'Reflections upon educational research and its funding in Australia'

10 September 1981. Annual General Meeting: Mr R. Cutts, NSW Department of Technical and Further Education, 'Training for research in public education'

1982. The Institute pursued a major theme, 'The fostering and funding of educational research'.

26 February 1982. Mr D. Swan, NSW Department of Education, 'Research from the viewpoint of a top education executive'

26 March 1982. Dr B. Fraser, Macquarie University, 'Where have we got with research on evaluation?'

23 April 1982. Associate Professor N. Baumgart and Dr A. Lindsay, Macquarie University, 'Paying the piper and calling the tune: Analysing the present funding situation for educational research in Australia'

28 May 1982. Kathleen Cook, Macquarie University Award, and Sue Funnell, University of Sydney Award, 'What the prize winners have been researching'

25 June 1982. In line with recent years, an indepth workshop and seminar was held in the style of AARE seminars. Co-ordinated by Ms Gail Macleod, this event centred on the theory and practice of participatory research in adult education, and the state of adult education research in Australia. These activities attracted mostly non-

members, but tied in with the work of both the Australian Association of Adult Education Research Network and the Review of Education Commission of NSW.

Funding Directions

Mr S. Dunn's address to the Institute, soon after the dissolution of the Education Research and Development Committee in 1981, gave impetus to making a detailed analysis of the context for this event. Discussions were then held with Senator Baden Teague to ascertain government attitudes to national research activities and funding. Other professional education research bodies were then invited to hear the Baumgart-Lindsay analysis in April. Subsequently the Executive debated alternative objectives and strategies, and approved efforts by Associate Professor N. Baumgart, in particular, to ascertain the interests of the three principal parties in developing a proposal that might generate wide support by these parties for a new form of national enterprise. The parties are the universities and colleges, the state education departments, and professional education research bodies. The nature of any national agency would include:

- 1 the fostering of educational research;
- 2 the encouragement of a wide range of initiative research;
- 3 the provision of a forum to establish educational research priorities, including the development of appropriate responsive research priorities;
- 4 the promotion of discussion on research in education;
- 5 the development of dialogue between policy makers and researchers;
- 6 the training of educational researchers;
- 7 the provision of a degree of national co-ordination in educational research; and
- 8 the development of concepts of research sponsorship.

Constitutional Developments

In view of the context in which it is now necessary for the Institute to operate, some members of the Executive considered it appropriate to extend the provision for the length of office of the President. They suggested this would allow for the development of initiatives, for more effective mutual relationships with the ACER, for the better utilization of Institute resources, and for periods of sustained leadership. The Executive judged this idea worth testing and developed proposals for constitutional amendment.

Membership

There was a slight increase during the year. There are 145 members, although to 30 September financial renewals were 113.

Australian Capital Territory

Dr Donovan was co-opted to the Executive with a view to developing Institute activities in the ACT. He and his colleagues have, in fact, developed a very effective informal network of education researchers although they consider it is premature to develop formal arrangements.

Publications

Mr J. Shellard has produced a double volume of the Bulletin with the 1980-81 addresses.

Prizes

A new research award policy has been developed in line with approvals given at the 1981 annual general meeting. The winners of the 1981 research prizes were:

A.W. McEwen, Macquarie University

A.L. James, University of New South Wales

S. Groundwater-Smith, University of Sydney.

Acknowledgments

The Institute is grateful for the use of facilities in 1981 provided by Alexander Mackie College of Advanced Education and in 1982 by Sydney College of Advanced Education.

Financial Statement

The balance sheet at 30 September 1982 showed \$974.11 accumulated funds including \$132.90 surplus for 1981/82.

NEWCASTLE BRANCH

Office Bearers

President: Professor J. Biggs

Vice-Presidents: Associate Professor Daphne Keats and Mr T. Nicholas

Honorary Secretary: Dr R. Telfer

Treasurer: Mr W. Howard

Committee: Mr J. Foster, Professor J. Keats, Dr J. Miles, Mrs W. Schiller

Delegate to ACER: Professor J. Keats

Meetings

21 July 1981. Dr D. O'Connor, 'Special education: The state of the art'

18 August 1981. Professor L. Webber, 'Strategies and tactics for implementing change in school systems'

24 September 1981. Research panel presentation involving students from the Newcastle College of Advanced Education and the University of Newcastle

22 October 1981. Annual General Meeting

April 1982. Dr M.J.A. Howe, University of Exeter, 'Student study skills'

May 1982. Professor E.A. Lunzer, University of Nottingham, 'Analysis of text'

Membership

Currently there are 28 members. A further 10 members are unfinancial.

Prize

The prize was not awarded in 1981.

The following modifications have been made to the conditions for the award of the prize.

<i>Former conditions</i>	<i>New conditions</i>
1 The prize shall be known as the Institute for Educational Research Prize.	1 No change.
2 The prize shall be awarded for a thesis embodying the results of original research and submitted for a degree in education (BA, MA, MEd, or PhD) of the University of Newcastle.	2 The prize shall be awarded for a thesis embodying the results of original research and submitted for a degree of the University of Newcastle.
3 Provided that there is a candidate of sufficient merit, the prize shall be awarded annually to a graduating student.	3 No change.
4 The prize shall be awarded on the recommendation of the Head of the Department of Education.	4 The prize shall be awarded on the recommendation of the Dean of the Faculty of Education in consultation with the nominating Head of Department.
5 The prize shall consist of \$25 and one year's subscription to <i>The Australian Journal of Education</i> .	5 The prize shall consist of \$80 and one year's subscription to <i>The Australian Journal of Education</i> .

Financial Statement

The branch had a credit balance of \$724.11 on 13 August 1982.

VICTORIA

Office Bearers

President: Dr L.W. Shears

Vice-Presidents: Dr G.J. Allen, Mr A.J.P. Natrass

Honorary Secretary: Mr M.W. Boyce

Honorary Assistant Secretary and Membership Officer: Mr K. Hall

Honorary Treasurer: Mr F. Hindley

Committee: Mrs M. Ainley, Mr K. Frampton, Mr H. Hobbs, Ms A. Ridsdale, Dr R. Rowlands, Dr G.J. Whitehead, Mr G.J. Bradshaw

Delegate to ACER: Dr G.J. Whitehead

Editor of Publications: Mr M.W. Boyce

PET Group Representative: Mr J. Silva

Research Group Representative: Mr I.L. Ball

Honorary Auditor: Dr G.J. Allen

Meetings

15 September 1981. John Smyth Memorial Lecture. Dr S.H. Haskell, 'Handicapping conditions of educational concern — Some issues in special education'

6 November 1981. Dr J. Lawry, 'Educational objectives — Talk or task?'

12 March 1982. Annual Meeting. Dr T. Williams and Mrs M. Batten, 'The Quality of school life'

10 June 1982. Twenty-ninth Frank Tate Memorial Lecture. Professor E. Byrne, 'Women and social reconstruction — A rendezvous with the twenty-first century'

Membership

There were 272 financial members of the Institute in 1981. An analysis of membership carried out in June 1981 indicated that school principals and vice-principals formed the largest group among the membership (33 per cent) with tertiary lecturers/tutors (19 per cent) and teachers (15 per cent) the next in order. Of the tertiary education members, approximately 80 per cent were in colleges of advanced education. The analysis showed a similar pattern to previous years.

Publications

Two issues of the *VIER Bulletin*, Numbers 47 and 48, were produced containing texts of major VIER lectures as well as other papers and reviews.

Research Group

This group held one open lecture where Dr H. Schofield spoke on her research into basic skills teaching. The Research Group is establishing an interest group to investigate the role of curiosity in learning.

Primary Education Today Group

This numerically strong group had another very successful year. Among the speakers at the monthly meetings were Ms L. Merryweather, 'Media'; Dr M. Clarke, 'Accident prevention'; Mr J. Hibbet, 'Physically handicapped children'; Dr K. Creed, 'Gifted children'; Dr H. Rowe, 'Early identification'; Mr T. Conabere, 'Reading schemes'; and Ms J. Dalton, 'Primary gifted children's task force'.

G.S. Browne Prize

Once again the G.S. Browne Prize for Educational Practice was awarded in conjunction with the Teacher of the Year Award. The Prize was awarded to Mr B. Smith of the Mt Moriac Primary School.

Life Membership

At the Annual Meeting, Life Membership of the VIER was conferred on Mr George Bradshaw for his magnificent contribution to the Executive of the Institute over a period of 22 years.

Financial Statement

The total funds held on 31 December 1981 were \$1611.75 and the surplus for the year was \$503.08.

QUEENSLAND

Office Bearers

Patron: Mr W. Wood

President: Mr P. Varley

Vice-Presidents: Miss J. Bedford, Dr J. Cotterell, Dr E. Hobbs

Honorary Secretary: Mrs D. Muir

Honorary Treasurer: Mr R. Skidmore

Executive: Mr N. Alford, Dr D. Chipley, Mr C. Fowler, Mr R. Warry, Mr R. Worthington

Representative to ACER: Mr N. Alford

Advisory Editor of The Australian Journal of Education: Mr R. Warry

Honorary Auditor: Dr L. Miller

Meetings

8 October 1981. QIER in conjunction with the Queensland Section of the World Educational Fellowship. Professor M. Maehr, Associate Director of the Interdisciplinary Institute for Child Behaviour and Development at the University of Illinois, 'Fostering a love of learning'

23 February 1982. Annual General Meeting. Mr M. Blackwell, 'Canadian education — An overview'

13 May 1982. Dr H. Rowe, ACER, 'Early identification and intervention'

18 May 1982. Practical Skills Workshop conducted by the Queensland Catholic Education Office

A research seminar on the 1981 work experience for Queensland state secondary student program evaluation was conducted at the Bardon Professional Development Centre. The methods and findings of the study were described by Dr E. Hobbs of the Research Branch of the Department of Education and reaction from a panel of people involved in work experience program was provided.

17 June 1982. Mr G. Berkley, Assistant Director-General of Education, 'Transition education reviewed: A look at the last three years'

Membership

QIER began the year 1982 with 81 members. Currently fully financial membership is 61 and more are expected. A number of new memberships have been recorded this year. As well there has been a further increase in the number of institutions subscribing to the Journal. This year an increase in membership fees to \$10 was introduced to meet anticipated increased costs in the production and distribution of the Journal.

Publications

The QIER Journal continues to be one of the main foci of QIER's activities. Under the editorship of Mr C. Fowler, new directions in editorial policy are being undertaken. Features on Research Notes,

Research in Progress, and Education Update will be appearing regularly. Two journals have been published this year and the third is partially completed.

Following the 'School-based evaluation' lecture workshop in June 1981 conducted by Professor S. Kemmis, a QIER Occasional Paper *Studying Ourselves: School-Based Evaluation of Curriculum Review and Improvement in Schools and Classrooms* was produced.

Financial Statement

The total funds held on 1 January 1981 were \$701.12. The total income for 1981 was \$151.14.

SOUTH AUSTRALIA

Office Bearers

President: Dr B.J. Webber

Vice-Presidents: Dr A.J. Shinkfield, Dr D.K. Briggs

Secretary: Dr E.R. Sandercock

Treasurer: Mr D. Dent

Committee: Dr J. Langrehr, Ms M. Parslow, Ms J. Keightley, Mr P. Fleming, Dr J. Grosvenor

Meetings

4 August 1981. Dr M. Sullivan, Directorate of Research and Planning, Education Department of South Australia, 'Teacher aims and the external examination', and Dr R. Wiseman, Senior Lecturer in Education, Adelaide College of the Arts and Education, 'An investigation of the structure and processes of ethnic interaction in secondary schools'

27 October 1981. Dr Claire Woods, Lecturer, Wattle Park Teachers Centre, 'Oral and written interactions between students and teachers during periods of written expression'

30 March 1982. Annual General meeting, Dr S. Kemmis, Associate Professor of Education, Deakin University, 'Reconciling research to educational practice — Towards building working relationships for schools review and improvement'

Membership

Membership for 1982 has been a little lower than the previous year and stands at 62.

Financial Statement

All funds from the Special Account have been transferred to the General Account, which stood at \$196.00 on 27 July 1982. There is also \$500 in a Bank Investment Account at call, and \$643 on deposit stock.

Classroom Research

Two reports have been received for projects partly funded by the South Australian Institute for Educational Research. The funding from the Institute provided for dissemination of the respective reports. The two reports received were from the science staff of Karcultaby Area School for the evaluation of their Year 8-10 science course, and from Mr Phillip Lannan, on Perceptions of the Role of Adviser. Both reports, although not major research projects, were of value to those involved in them. The report of Mr Lannan was circulated through the Education Department to all Advisers in the Department, and should have a bearing on how they see the functions of their role in the future.

WESTERN AUSTRALIA

Office Bearers

Patron: Dr D. Mossenson

President: Dr M. Clark

Vice-President: Dr A. Ryan

Immediate Past President: Mr M. Angus

Secretary/Treasurer: Mr J. Oliver

Committee: Dr D. Andrich, Mr P. Deschamp, Dr L. King, Dr M. Lee, Dr G. Masters, Dr P. Porter, Dr R. Underwood

Representative to ACER: Dr M. Clark

Advisory Editor of The Australian Journal of Education: Dr M. Clark

Honorary Auditor: Mr G.T. Cook

Meetings

15 July 1981. Dr F. Darnell, 'A review of issues in rural education with special reference to research at the national level'

20 August 1981. Dr K. Tobin, 'Teacher variables and pupil variables: Achievement outcomes'

1 October 1981. Dr L. King and Dr N. Tuckwell, 'Stimulated recall as a research methodology in education'

29 October 1981. Dr T. Kitwood, 'The empirical study of personal values: How and why?'

19 November 1981. Dr M. Rosier, 'Survey of standards of mathematics in Australian schools with particular reference to WA'

3 December 1981. Annual General Meeting

9 December 1981. 'Proposed study of priorities and practices in Australian schools in the context of community expectations', prepared by Mrs Margaret Batten, ACER

4 March 1982. Dr D. Andrich, 'Reconciling potential conflicts among policy studies, applied research and basic research in education'

25 March 1982. Mr M. Angus and Dr K. Tobin, 'Teacher assessment — Should we? Can we? — Some research perspectives'

29 April 1982. Dr G. Masters, 'Looking ahead in education testing and assessment'

27 May 1982. 'Teacher Assessment Interest Group (TAIG): Management meeting'

24 June 1982. Dr B. Fraser, 'Classroom environment research'

Membership

As at 19 August 1982, there are 86 financial members and eight honorary members.

Publications

Issues in Educational Research, No. 7, 'Standard of Mathematics in Australian Schools' by Dr M.J. Rosier, is currently in press, having been

delayed in production by the restructuring processes of the Western Australian College of Advanced Education amalgamation.

Prizes

The Institute continued its policy of awarding a prize at each of the institutions existing before amalgamation of the colleges of advanced education into the Western Australian College of Advanced Education:

Miss G. Bayly, Mount Lawley Campus, WACAE

Miss M. Dudman, Claremont Campus, WACAE

Mr J.H. Fairhall, University of Western Australia

Mr P.A. McGrandle, Churchlands Campus, WACAE

Miss L. Mullings, Claremont Campus, WACAE

Mr G.W. O'Brien, Nedlands Campus, WACAE

Mr A. Prior, Murdoch University

Policy for the award of prizes is under review.

TASMANIA

Office Bearers

President: Dr P.W. Hughes

Vice-President: Mr L. Blazely

Secretary: Mr R. Cooper

Treasurer: Mr M. Webberly

Committee: Mr W. Ransley, Ms J. Connor, Mr N. Behrens

Meetings

12 August 1981. First formal meeting of the re-formed TIER

September 1981. Ms J. O'Grady, 'The minor impairments research study'

October 1981. Mr G. Rodwell, 'Crypto fascism as the determining ideology on the foundations of TIER'

November 1981. Report from AARE Conference by Ms H. Hocking, Ms E. Dunn, and Mr K. Collis

1982. TIER is extending its activities more widely than general meetings. This year one general meeting was held at which a report from the Research Projects Subcommittee was considered. This subcommittee put forward three suggestions for research projects which might be supported by TIER.

A major activity this year has been to conduct a series of research seminars. The aim of this series is to introduce people involved in the educational research enterprise ('receivers' as well as 'doers') to a selection of techniques being used in educational research. Each session is designed to give participants the flavour of the technique involved via lecture, seminar, workshop, or demonstration (whichever is appropriate) and discussion.

12 May 1982. Mr W. Ransley, University Centre for Education, 'SPSS/computer package use'

26 May 1982. Mr M. Eley, University Centre for Education, 'Experimental design and validity'

NORTHERN TERRITORY

Office Bearers

Patron: Dr J. Eedle

President: Dr G. Durling

Immediate Past President: Dr N. Bowman

Vice-Presidents: Mr P. Spinks, Mr L. Richardson

Secretary: Mrs B. Hulme

Treasurer: Mr D. Moeckel

Committee: Mrs M. Moeckel, Mr K. Ford

Representative to ACER: Dr N. Bowman

Meetings

16 July 1981. Annual General Meeting. Mr R. Kimber, 'Arts in education'

1982. NTIER has continued to encourage reports of work by local researchers and to facilitate the dissemination of views of visiting educators. The list of speakers is Dr S. Harris, Ms P. Harris, Mr S. Hatton, Dr N. Bowman, Dr Thelma Davidson Adair (in association with the Australian College of Education), Ms Margaret Blyde (in association with UPA), Mr S. Davis, Dr N. Stewart, Mr K. Ford.

Membership

Current membership (financial members) stands at 43.