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**AUSTRALIAN COUNCIL FOR
EDUCATIONAL RESEARCH**

**THIRTY-FIFTH
ANNUAL REPORT
1964-1965**



FREDERICK STREET, HAWTHORN, E.2, VICTORIA. AUSTRALIA

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FREDERICK STREET, HAWTHORN, E.2, VICTORIA, AUSTRALIA

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Including Annual Meeting, August, 1965

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Co-opted Member

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A. H. Webster, B.A., B.Ec., M.A.C.E.

New South Wales: to July 1965

Associate-Professor D. Spearritt, M.A., M.Ed., Ed.D.

New South Wales: from July 1965

W. M. McKinty, B.A., Dip.Ed., M.A.C.E.

Victoria

W. Wood, M.A., B.Ed., A.B.Ps.S., F.A.C.E.

Queensland

C. Rooney, B.Sc., Dip.Ed., M.A.C.E.

South Australia: to July 1965

K. L. Berndt, B.Sc., B.A., M.A.C.E.

South Australia: from July 1965

N. G. Traylen, M.A., Dip.Ed., A.B.Ps.S., F.A.C.E.

Western Australia

R. W. McCulloch, B.A., B.Ed., A.B.Ps.S., M.A.C.E.

Tasmania

Footnote: At the annual meeting of the Council, Mr. F. H. Brooks represented as an observer the state directors of education, and Mr. A. P. Anderson was present as an observer for the Commonwealth Office of Education.

*Annual Report to the Council by the Director for the Year
1964-1965 presented at the Annual Meeting of the Council,
26th and 27th August, 1965*

PART 1: THE CLIMATE FOR EDUCATION AND RESEARCH IN EDUCATION

It is doubtful whether in Australia public, parliamentary, and professional discussion of education has been at a higher pitch, or the rate of change in education has been faster, than during the last year. National and state policies in a great number of educational matters have been argued in parliaments and in the press. Direct and indirect financial assistance to non-government schools and to the parents of children attending them has been considered in the policy-making councils of political parties, and the discussions have been given wide publicity. Aspects of organization of schools have been elements in election campaigns. Examinations and their relation to secondary education and tertiary studies have been under intensive study and review in all states. The structure and financial support for tertiary education have been reviewed and important political judgments made which may affect tertiary education for generations to come. Many curricula and courses of study, particularly in mathematics and science, have been thoroughly reexamined and major reorganizations made in them. The control, length and nature of the professional training of teachers has been studied both by teachers' bodies and by the national government. The interest of parents' bodies, both statutory and voluntarily organized, has been sharpened by the obvious change in political climate on 'state aid' to non-government schools, by the obvious unrest of teachers in several states about what they regard as serious deficiencies in the opportunities given by schools to the children being educated in them, and by the financial assistance now provided by the Commonwealth government to education at secondary and technical school levels, by scholarships, by assistance with science facilities and equipment, and by assistance with technical education. Some major changes in organization at the secondary school level have been fully planned and others, put into general practice a few years ago, are now showing their full effects.

Major reports and statements on Australian education have initiated, intensified or contributed substance to the argument and debate on many of the matters referred to above. Outstanding in its public interest and national impact has been *Tertiary Education in Australia*, the report of the Committee on the Future of Tertiary Education in Australia to the Australian Universities Commission. The discussion aroused by the report, the Commonwealth government's decisions about putting its recommendations into practice, the detailed criticisms made of both in *Vestis* (Vol. VIII, No. 2, June 1965), and the reaction of most professional groups in education to the section dealing with teacher-training and to the present caution of the Commonwealth government in supporting the recommendations made in regard to such training, have been a major event in Australian education. But there have been other reports which in the absence of *Tertiary Education in Australia* could well have occasioned much more debate and discussion than they have received, and been matter for more serious consideration than they have been given or will now be given. The report of its 1965 seminar by the Australian Institute of Political Science, *Tertiary Education in Australia; Education for Australians* edited by the late Vice-President of the Council, Mr. R. W. T. Cowan; the second report of the Australian Universities Commission; the *Petch Report on the Public Examination System in Western Australia*; Sir Fred Schonell's *Challenge to Education*; the Currie Report on *Higher Education in Papua and New Guinea*; the Western Australian proposals for a 'cumulative' certificate in secondary education; and the report of the Australian Teachers' Federation on Teacher Training in Australia; these are some of the reports I have in mind.

These have been the more obvious signs of the fact that education is now acknowledged to be one of the central concerns of public policy. They have all helped to satisfy a need—felt by those responsible for administering and financing education, by those professionally involved in advising governments or school councils, by those concerned with the workings of schools and systems, and by those concerned with the actual teaching of the persons for whom all the effort and thought is of most urgent significance—for more knowledge about what is being done in Australia and about its effectiveness, and for more informed discussion of the assumptions and principles underlying the important decisions which must be constantly made at many levels of government and administration.

In none of these has the Council been continually involved,

although here and there past work done by the Council and its published reports have been called on. Two chapters were contributed to *Education for Australians*, and three special statements were contributed to the *Report on Tertiary Education*.

Less copiously documented, and their importance still comparatively ignored in published reports, have been the many continuing changes being made in courses of study at both primary and secondary school levels and the steady growth of innovation in schools. There has been growing, almost unpublicized, a markedly favourable atmosphere towards experiment and innovation in practice. There is growing recognition that many of our educational practices have the sanctions of accumulated wisdom and experience rather than the direct backing of controlled research, and side by side with that recognition a readiness either to seek for such research backing or to make an attack upon accepted practice. In the long run, I think these activities will have the more lasting effects. It is the deeds at the working face of education and not arguments about them divorced from future action that most affect the lives of those educated, and the readiness to accept change and to seek an evaluation of its effect will give those deeds a significance far beyond that of the uncritical repetition of experience.

It is in these fields that I believe the Council's present work is having its effect. We are touching change at many points in our associations with education departments and teachers, and contributing to it. The gap between what the Council can do with its resources and what it might do given greater ones widens every year as the rate of change of attitudes accelerates, as more and more teachers and others look for the evidence to support practices, and as more and more students of education seek to find out more about the complex business of teaching and learning, and about the organization of situations in which teaching and learning, or learning alone, may be most effectively undertaken. As I think the following report will show, the studies being undertaken, the tests and testing programmes being supplied, and the general services given, have all contributed to the solution of immediate problems—pressing ones for those involved in them—or have been designed to present knowledge and to comment upon evidence derived from specially set-up studies, which will assist in policy formation or in teaching practice. Not least amongst those services has been the provision both of the educational materials which we distribute, and the advice given to many inquirers regarding both the use of that material and the use of other materials.

Part at least of the ferment of interest and the desire for change and progress has shown itself in the very great increase in the use of new educational materials in classrooms, and in the almost bewildering variety of books, teaching programmes, learning 'kits', laboratories, and other aids now being fostered by publishers and booksellers. Most of it is still imported or local adaptations of overseas ideas, but there has been a number of healthy signs of original work in Australia. Such original work is handicapped and will be handicapped by the scarcity in Australia of developmental funds—money available for trial and development of new ideas which may or may not be viable, and on which the expenditure may not ever be recovered. The injection of massive funds from both central government and large foundations has, I believe, long since proved its value in USA, and is rapidly affecting curricula and attitudes in UK. There are already several examples of the possibilities of similar approaches here in Australia: for example in the production of textbooks in science for New South Wales and in the preparation of special tests to accompany the PSSC course in Victoria. The climate for such assistance and support is, I believe, more propitious in Australia than it has been in the past, and this despite the obvious difficulties that every school system is having in financing the essential growth and natural development of its schools.

So far as the Council's staff has been concerned, over the past year we have all been aware of increasing demands upon our time and knowledge, and particularly of the growing demand I referred to earlier for justification of current educational practices, for experimental work to develop new practices, for evaluation of new developments in materials, method and organization, and for a soundly based theory of teaching and learning. So far as I have personally been concerned, the deepening and widening of public interest in education, of professional concern in its many points of growth and its many unsolved problems, and the growing awareness in Australia that even educationally we are no longer an island but live in a world to which we have and are being asked to observe commitments to help others, excite me at times with the great challenge they offer, and frustrate me at others by the awareness of how slim as yet are Australian resources in sound research, adequately trained researchers, finance to undertake more research, training centres to develop more researchers and adequate career opportunities for them. I know that most of those involved in any way with providing educational services or undertaking research feel much the same. At an even more personal level, I would like

to record the view that the two greatest difficulties the Council still has as a research organization are:

(i) to have *generally* accepted the view that decisions affecting the learning of students can be supported by leads from research either already done or which could be done given adequate facilities; and

(ii) to convince those who want research done both that it will be rare for any particular research study to provide *all* the answers wanted by a policy maker, and that almost any research involving effect on learners must be a long-term project if it is to be of real help.

Association with Education in New Guinea

During the year discussions have been held with the Department of Education in New Guinea regarding a closer association between the Council and that Department. Following a visit by Mr. Dunn in October 1964, it was agreed that the Council would provide advice to the Department on examination problems and the Department would reimburse the Council. In May, Mr. Dunn again visited New Guinea to help in the preparation of the Primary Final Examination. He also conferred with officers responsible for secondary examinations and for educational guidance.

Death of Dr. David H. Russell

All those who had the privilege of knowing David Russell, who was in Australia in 1959 as a guest of the Council and the University of Queensland, were grieved to hear of his death. His contribution while in Australia to interest in reading, in children's thinking, and in research upon children's achievements in language, were thoughtful and inspiring. He came to Australia to meet many former friends, and left here leaving many more who had looked forward to a longer association than circumstances have allowed.

PART 2: ACTIVITIES 1964-1965

GENERAL RESEARCH DEPARTMENT
Chief Research Officer (on leave): Mr. M. L. Turner
Acting Head of Department: Mr. J. P. Keeves

COMPARATIVE-HISTORICAL DIVISION
Senior Research Officer: Mr. R. T. Fitzgerald

Current Trends in Vocational and Technical Education in Australia, Mr. R. T. Fitzgerald

At the request of the Director-General of Higher Technical Education in Spain, a draft report was prepared on recent trends in vocational and technical education in the several Australian states. Comments on it received from all states were incorporated in a modified report forwarded to Spain in September 1964. A limited number of copies was produced for distribution to interested centres in Australia.

Differences between Standards in and Organization of Education in the Various States, Mr. R. T. Fitzgerald & Mr. T. S. Duff

A report on differences in the educational system likely to cause difficulties to transferees from one state to another, prepared at the request of the Australian College of Education, has been circulated in draft form to those likely to be able to contribute useful advice and comment. I expect to have it in final form by the end of September. First reactions by outside readers have been favourable, and it appears that it will be a document suitable for general distribution. Except for brief reference to technical education, and a passing reference to problems of transfer of university students from one university to another, the report is concerned entirely with primary and secondary education.

Developments in Australian Education

Mr. Fitzgerald has continued to use the uniterm co-ordinate method of referencing, for articles on Australian education, to which reference was made in last year's report. He is finding the system useful, and we have given some consideration to a wider dissemination of the references. However, it appears that most of those working over the same field of interest prefer to do their

own individual search and annotation, and we have not pursued the matter further.

Australian Education Index

Mr. Fitzgerald and the editress of the Index (Mrs. F. McPherson) combined their interests and prepared questionnaires seeking from librarians and the staffs of teachers' colleges and university departments of education both information about the way the Index is used, and suggestions for its improvement. Most of the suggestions made would be desirable had we both staff and finance to support them, although the additional benefits would probably be for only a very small number of users. Information about the coverage, costs and distribution of the Index are reported later, under Publications.

Abstracts

All centres in Australia likely to have unpublished research on file, either as theses or as reports to senior officers, were again asked to make these available. The response was good, and with one or two exceptions all co-operating centres wished the service to continue.

The UNESCO abstracts referred to in last year's report have not been continued during 1965. We reported favourably on the scheme to UNESCO, but do not know what their future policy is to be. A further proposal, for the dissemination of abstracts of research studies in progress, has recently been received and commented on—not so favourably.

The CIRF abstracts, published by the International Vocational Training and Research Centre, have continued to provide a readily accessible reference to vocational education throughout the world.

Mr. Fitzgerald has prepared, and we have distributed to Council members during the year, a small number of abstracts of important Australian developments; their continuation or cessation should be considered now, as the initial twelve-month period of trial is nearly over.

The general problem of retrieval of data, to which the uniterm and abstracting approaches are related, has not been given much attention in published work in Australia, but there is continuing interest in it elsewhere. The possible uses of the memory storage of computers which are able to print out quickly all references keyed in certain ways appear to be attracting most interest. One

interesting comment on the problem was that almost the first necessary step was a reduction in quantity of educational publishing to eliminate much of the repetitive opinionative statements. Although obviously offered in flippant mood, the comment does highlight the problems of distinguishing quality from quantity, and of satisfying all customers with their different interests in particular aspects of a work. Some seek for such statements, others for original research, others for reviews and collations.

Secondary Education in Australia

Mr. Fitzgerald has visited so far all states except Queensland* in connection with a contemplated monograph on secondary education in Australia. The present intention of this monograph is to survey the present scene and the recent developments which have prepared that scene.

Comparisons will be made of different approaches, the solutions offered will be commented on from a historical and a comparative viewpoint, and the forces affecting change (so far as these can be isolated) will be pointed out.

General Information Services

Statistical information related to the numbers of children aged twelve to eighteen, and to the numbers in related forms, attending schools in all states, has been collected for the years 1956 to 1964. A preliminary report was prepared on this information, pointing out trends in Australia as a whole, within the several states, and for boys and girls separately. Only a relatively small part of the information gathered will be reproduced in the report.

Education and Training for Agriculture

Dr. R. N. Farquhar's secondment to the Council from the CSIRO to undertake a survey of education and training in agriculture has been extended for several months to enable him to complete his report without interruption. During the year he has visited all states and the ACT and has had most fruitful discussions with officers of government departments, with appropriate university departments, and with other bodies interested in the survey. Everywhere the cooperation offered and the direct assistance given in discussion and by providing statistical data have been excellent. A great deal of very valuable information has been collected.

*This visit was made from 6th-10th Sept., 1965.

Assistance given in various ways by members of the Australian Institute of Agricultural Science has been most welcome. I expect that a printed report will be available early in 1966. Meanwhile, Dr. Farquhar has presented some of the information derived from the survey to a meeting of members of the Institute of Agricultural Science in Hobart prior to the ANZAAS Conference.

At the time of writing Dr. Farquhar is still formulating his conclusions from the material he has assembled and from its many interrelations. Without prejudice to his own final conclusions, it is already obvious to me that there is a wide gap between present provision of training and education and the needs now present in Australia, and that there are mounting pressures for better educational preparation for those engaged in agricultural production and its ancillary services.

Music Education in Primary and Secondary Schools

The first part of this survey, which is largely supported by a grant from the Calouste Gulbenkian Foundation, has been completed. Mr. V. Horner, seconded from the Education Department of Western Australia for the purpose, completed early in 1965 his survey of the literature relating to research in music education, and this is now at the printer for setting. The survey is a comprehensive one that should be most valuable for those devising courses, advising students about research into music, and selecting for themselves topics for their own research.

The second part of the survey, the study in each state of practices in primary and secondary schools, was delayed until a suitable person to undertake the survey was available. Mr. Graham Bartle, lecturer in music at the Secondary Teachers' College at Melbourne, has been generously seconded to the ACER by the Victorian Education Department. I hope that he will be able to visit all states early in 1966 to interview administrators and to visit schools. Meanwhile, a draft questionnaire and a draft interview schedule have been prepared, a 5 per cent sample of schools has been drawn from all states to ensure representation of all kinds of schools in Australia, and courses of study have been examined and collated. In the next few weeks an outline of the proposed survey will be submitted to state departments of education and to Catholic directors of education, and their consent requested to the proposed survey and questionnaire. If possible, the questionnaires will be administered before the end of 1965 so that the collated replies will be available to Mr. Bartle, along with the analysis of courses of study, before he begins interstate travelling.

Mathematics in the Primary School

A full report on the conference convened in March 1964 to consider the course in mathematics for primary schools was given in the last annual report. The duplicated account of that conference has been widely used and over four hundred copies have been distributed by the ACER. We have been able to satisfy the interest of a number of inquirers to whom the full report was not available by providing reprints of an edition of the *Curriculum News* of the Tasmanian Department of Education in which some of the material from the conference was reported.

The idea proposed by that conference, that an explanatory manual should be prepared for teachers in primary schools, was accepted by the state directors of education. In November 1964, Mr. R. Rawlinson of the NSW Department of Education and Mr. Keeves met for a week and prepared both a proposed outline of the manual and several introductory sections which they felt should be included apart from the sections dealing specifically with mathematical topics. These sections dealt with 'The Nature of the Child', the 'Nature of Mathematics', and the 'Objectives and Principles Underlying Mathematics'. The writing of sections dealing with mathematical topics was handled by members of the 1964 conference, and in early July 1965 the writers met again at the ACER, examined in conference the drafts prepared (many of which had been previously circulated), rewrote certain sections, and proposed the integration of others. The plan for further action envisaged that individual authors would do any further rewriting and revision of content immediately on return to their home states, and provide to ACER sufficient copies of their revised section for one copy to go to each contributor. The complete collated manual, with first editorial revisions suggested, would then be sent to the writers for any final comment. It is hoped also at this stage to arrange for several interested professors of mathematics to examine the material from a mathematical viewpoint, and to give us comments on its purity from that viewpoint. These comments would be considered by Mr. Keeves, Mr. Berkeley (Queensland) and Mr. Hughes (Tasmania) as an editorial committee. The final recommended form of the manual, together with suggestions for its format and a proposed introduction, is to be submitted to the directors of education as soon as practicable, with the idea that

it should if possible be printed in time for use by teachers early in 1966. The final method and manner of printing and distribution will be a matter for discussion with the directors.

The final result will be, I am sure, a very valuable introduction for many teachers in primary schools to some of the basic concepts of the mathematics to which they introduce their pupils.

I would like here to record my view that, in the two conferences so far held about primary school mathematics, our collaboration with the curriculum officers of all the state departments of education has been for the Council officers concerned a most valuable experience. The combination of urgency, of the need to consider both what is desirable and what is practicable, of the interplay of different points of view all tending to the same practical end, and of the interchange of personal experience as well as experience within different educational contexts, has helped all those concerned. It has, particularly, reinforced strongly the experience we have already had of the value of direct collaboration with educators at all levels of education in helping to solve their problems and to provide them with tools better fitted to do the tasks they face.

Visit of Dr. W. A. Brownell

Dr. W. A. Brownell, former Dean of the Faculty of Education of the University of California at Berkeley, whose early work in 1960 in evaluating the results of different approaches to primary school mathematics in England and Scotland had aroused considerable interest, passed through Melbourne early in 1965. The opportunity was taken to have him discuss with a select group of those interested in primary school mathematics the results of his more recent and more comprehensive study, and related matters.

Dr. Brownell also agreed that we might abstract and circulate to interested persons in Australia the report on his recent study which he had presented to the US Office of Education. Considerable interest has been expressed in this by a number of recipients.

Visit of Dr. W. V. Mayer

Dr. Mayer, Assistant Director of the Biological Sciences Curriculum Study in the USA, had arranged to visit Australia in connection with South Australian interest in the programme. We were able to extend his visit to Victoria and to arrange for representatives from Western Australia, Queensland and Tasmania to have discussions with him. His visit was a fruitful one, and science teachers interested in biology were given answers to many hitherto unanswered questions.

Some Overseas Developments in Mathematics Courses

Mr. Keeves took the opportunity afforded by his attendance at an IEA conference in Chicago in February to visit a number of centres in USA and England where new courses in mathematics, at both primary and secondary levels, were being developed, tried out or evaluated. He has reported on his observations in an Information Bulletin (IB 01/65) recently circulated, entitled *Some Observations on Mathematics in Primary and Lower Secondary Schools in England and in the United States of America*.

Catalogue of Structured Aids and Other Materials for Mathematics

One of the requests made by the participants in the 1964 conference on primary school mathematics was that the ACER prepare and circulate a statement setting out the structured aids for mathematics, other kinds of materials useful in teaching, learning and testing mathematics, and textbooks, teachers' manuals and pupil workbooks, etc., relating to new courses, which were available in Australia, giving the names of suppliers and costs of materials. Good co-operation was received from all sources approached and a first compilation was circulated in November 1964. Suggested additions, modifications, and deletions have been considered in the preparation of a revised compilation, which is expected to be distributed before the end of 1965.

Programmed Instruction

Calculus. With the assistance of the grant from the Percy Baxter Charitable Trust to print a programme in calculus at the matriculation level, and of the remaining funds available from the Myer Foundation to meet the cost of staff time required to prepare the programme for printing, we were able to print five hundred copies of this programme in an experimental version and make it available to a number of interested schools, early in 1965, for trial during 1965. It does not suit the approach to calculus adopted in Tasmania, but in all other states it has been accepted as worthy of trial. It is being used in a number of situations: for supplementary work in schools, for remedial work, for bridging courses, for elective work in teachers' colleges, and as a substitute for normal teaching procedures in the pre-university year in schools.

Reports will be asked for from all users on both the content and presentation. It is already very clear that diagnostic and survey tests, which we ourselves thought were necessary as an integral part of the programme, must be provided.

Present plans provide for the inclusion of two more sections,* for a revision of the whole programme late in 1965 in the light of comments received, and, if these comments justify it, for the printing of a final form. This will incorporate revisions and tests, and be printed in sufficient quantity to meet the needs of likely users (which will not be easy to estimate) and to provide for the conduct of some controlled experimental trials of either the whole or parts of the programme.

Latin. Professor H. A. K. Hunt, who originated the programme on dependent clauses in Latin (at the Intermediate Certificate level in Victorian secondary schools), and Mr. Keeves prepared a report on this programme based on information received from the teachers and pupils in participating schools and on an examination of the performance in public examination in Latin of the pupils from some of the Victorian schools. The result was published in February 1965 as Research Bulletin No. 1, 1965, under the title *Dependent Clauses in Latin*. The authors are cautious, but conclude that such lessons can lead to more effective learning of certain parts of a Latin course, in classes with both experienced and inexperienced teachers.

The programme has been asked for again in 1965 by several of the schools involved, although Professor Hunt has not yet incorporated revisions which he has in mind.

Spelling. The programme in spelling prepared by Mr. Keeves has been tried out very carefully in a Victorian school, and a number of valuable lessons have been learned from the trial, which will result in some revision of the original. At the moment, further action has been deferred because of the amount of other work involved.

Programmed Instruction in Australia. At the suggestion of the Commonwealth Office of Education we agreed to answer a questionnaire and provide to the University of Pittsburgh other information concerning the present state of programmed instruction in Australia. As a sequel to the first lot of information supplied, which was required for the production of what appears to be a world survey, we were asked by Pittsburgh to prepare a 2,500 word report on recent and current activities, together with some comments on the general attitude to programmes. A first draft of this report was commented on by all centres or persons known to be concerned with programmed learning, and a revised version has been prepared both to send to Pittsburgh and to issue as an

* Distributed August 1965.

Information Bulletin (No. 2, 1965) entitled *Programmed Learning in Australia 1965*.

Catalogue of Programmes, etc. When the *Review of Programmed Instruction* was completed and distributed in 1962, those who received it were asked if they wished to be kept informed of later developments. Many expressed such a wish. In 1964 a statement of programmes available in the ACER library and of the names of distributors in Australia of machines and programmes was distributed to them and to others. A revision of this statement has not been attempted, as the commercial houses appear to be undertaking adequate publicity. Evaluation is still a most important and unfulfilled task, however.

MEASUREMENT AND EVALUATION DIVISION

International Study in Educational Achievement (IEA Project), Mr. J. P. Keeves

An outline of Australian participation in this project was given in the last annual report, and it is not proposed to repeat that here. Preparing the material for the processing centre in Chicago was an arduous task carried out against tight deadlines. There were three groups of pupils in Australia who answered tests and questionnaires in this phase of the project, viz., achievement in mathematics.

- Group 1a A sample of all 13-year-olds in whatever grade or form (2,917 pupils).
- Group 1b A sample of all children in the form in which the majority of the 13-year-olds were found (3,078 pupils).
- Group 3b A sample of pupils in the pre-university year taking mathematics (1,059 pupils).

All told, 166 separate schools in the five states involved participated, 107 with 1a children, 107 with 1b, and 56 with 3b.

The directors of the project arranged for a conference in Chicago in February of this year at which all participating countries were represented. Many aspects of the project were dealt with, and outlines and drafts of chapters of the international report were considered. The original intention to have the international report ready by 30th June 1965 has been abandoned because of

many difficulties faced by national centres and the international collation.

Mr. Keeves accepted responsibility for preparing a chapter on 'Differences between the Sexes in Mathematical Achievement at the Thirteen-year-old level', and has been supplied by the Chicago centre with the necessary data to compile this.

Data have recently been received which will enable us to report to the participating states about the performance of their own schools, the state as a whole, and Australia (in so far as the five participating states represent Australia).

It is still too early to say whether and in what ways participation in the project has helped either the Council or Australian education. A further conference convened in late August 1965 at Hamburg will continue discussion of certain aspects of the mathematics phase of the study, and will open discussion on possible extension of the study into other subjects. The directors of the study have been made aware that national centres have incurred considerable expense in the mathematics phase of the study, and have accepted the view that funds must be made available to national centres if further participation is to be expected. I have made it clear, however, that the value of such studies must in my view be demonstrable and demonstrated before it can be expected that Australian departments of education and Australian schools will participate.

We have not as yet given thought to the substance of a national report, as the full extent of the international report is not clear, and time is too precious to be wasted on duplication of information.

General Ability Survey: Victoria

Data regarding the progress through school of all those tested in this survey in 1962 have been sought from the schools involved. For each child we have asked, and for most of them obtained, the following information:

In 1962, at the time of first testing: name, sex, age, country of birth, years of residence in Australia, language of instruction, type of school attended, form level (including length of time spent in it), subjects studied, and home address. Later, at the end of the year, the results obtained by the Form 6 students at matriculation were obtained.

In 1963 and later years to 1965, we have obtained:

- (i) for students still attending the school where they were originally tested, form level and subjects of study;
- (ii) for those who continued full-time education elsewhere, par-

particulars from the secondary school of course taken there or tertiary institution attended;

(iii) for those who left school for employment or to take up specific vocational employment, best information the school could provide about where this was.

In 1964 also, particulars of father's occupation were secured for all children originally tested.

Some of the original group tested at Form 4 level in 1962 are still at school, but the majority has left school, some to continue full-time education, some to undertake part-time education while working, some to work without study.

We have already undertaken some follow-up work relating IQ's to performance for the 1962 Form 6 pupils in some of the matriculation subjects; some analyses in the several forms and years of the IQ's of those leaving school and staying on; and some analyses of the reported occupations of the parents in relation to IQ's of those staying at school, and leaving, from various levels. These are not yet in a suitable form for presentation as a second report. It has not been possible to allot much staff time to the survey this year, as specific funds have not been provided for it, and other projects of wider Australian concern have performed been given higher priority.

Commonwealth Secondary Scholarships in Victoria

Early in 1965 the Victorian Association of Headmasters and Headmistresses of (Government) High and Girls' Secondary Schools decided to distribute to its members a questionnaire dealing with a number of aspects of the 1964 scheme for the award in Victoria of the two-year Commonwealth Secondary Scholarships. The ACER was asked to suggest some questions for it, and we did so.

The independent non-Catholic schools and the Catholic schools decided to distribute the same questionnaire, and all asked us if we could undertake to collate and report upon the answers. This has been done, as there is much in them of direct value to ACER as the body preparing and marking the examination papers and presenting the order of merit of candidates.

Rather than present four or five separate reports to the various organizations, a single report has been prepared and is at present being considered by representatives of the organizations. If it is acceptable it will be distributed* to each of the member schools of

* Distributed September 1965.

the various associations. Not all schools replied to the questionnaire, but those who did reply included well over three-quarters of the scholarship winners.

Reliability of Essay Marking

The necessity of marking the composition sections of the Commonwealth Secondary Scholarships written expression paper provided an opportunity for ACER to practise some the policies advocated for improving the reliability of essay markers.

The scheme adopted for marking was as follows:

(1) Before the examination Mr. Gosling of ACER and Mr. Colman (NSW Education Department) selected from the trial-run material a set of ten scripts for each composition which they graded into two at each of five levels: A, B, C, D and E. (Other staff members checked these gradings.) These, together with the rationale for marking each composition, were duplicated as a markers' guide.

(2) A further ten compositions on each topic were selected to represent the range of compositions and were duplicated as training material.

(3) The markers attended in groups of fifteen to twenty for a three to four hour training session, in which they studied the markers' guide and marked and discussed the training material. (Note: Compositions were marked on a fifteen-point scale: A+, A, A-, B+, B, B-, etc.)

(4) Markers came to ACER to mark. Day and evening sessions were held.

(5) Markers did not mark more than one composition of any one candidate, except as mentioned later for research purposes. Clerical staff provided markers with batches of twenty papers opened at the appropriate composition.

(6) To obtain an estimate of the reliability of these procedures a number of papers were re-marked twice by the same procedure. In addition, for some papers, a marking of the three compositions by the same examiner was obtained,* commencing with different questions, to study the effect, if any, of the mark awarded to the initial composition on later marks.

(7) In NSW all papers were marked on the one-marker-to-a-paper principle. A number of papers was sent through the system twice.

* These were also marked by the same system used to obtain the mark used for scholarship purposes.

(8) A questionnaire was sent to Victorian markers at the conclusion to obtain their opinion of the procedures.

A research bulletin is being prepared on this study, which will incorporate other material on essay marking.

LEARNING IN SCHOOL SITUATIONS DIVISION

Senior Research Officer: Miss M. Nixon

Formation of Concepts

Miss Nixon has continued her exploration of aspects of the development in young school children of concepts which assist in the tasks of sorting, classifying, and discriminating, in which a very great deal of time is spent in the early grades of primary schools. Since the last annual report was written, she has prepared three progress reports on aspects of the work she is doing.

This is a field of study of very considerable complexity; J. G. Wallace's recent publication *A Survey of Research on Conceptualization*, in which he examines the research literature up to 1963, makes this very clear. It is one that requires prolonged study in depth, however, because of the growing body of opinion that the ability of children to understand and to use what we have hitherto thought beyond them has been underestimated, and because there is a growing belief that the development of conceptual thinking proceeds through certain fixed stages. There is a danger inherent in the first opinion of going too far without sufficient knowledge of the processes by which understanding is reached and use is made of that understanding; there is a danger in the second that the stages at present partly delineated by research will be regarded as definite, will be seen as chronologically determined or arrived at by 'normal' maturation independent of experience, and will become inflexible determinants of school programmes.

Miss Nixon's work so far suggests that while logical thinking, as illustrated in tasks requiring classification and discrimination, does develop in stages, and while there may be a fixed sequence of development in children as they are at present brought up and taught, much remains to be discovered both about the processes in thinking and the sequence of development. It appears that a few quite young children (ages four to five) are capable of a variety of thought processes which are considered logical, such as the manipulation of inclusion and exclusion in classes, and the production of relationships of equivalence. There are suggestions in the data so far gathered from the particular tests used that, on the average, younger girls are superior to boys of the same chrono-

logical age (four to five years) on some of the tasks that require logical thinking. The use of language to explain the child's actions seems to be not closely related to the ability to perform the tasks requiring the logical manipulation of the materials used, and if this early finding based on preliminary work is borne out by work on the larger scale now in progress, it will call seriously into question, for example, the use of sorting and discrimination tests as indices of reading readiness.

The work done and the progress reports already circulated have added further to the store of information we already have about the range of differences among children at the earliest levels of schooling, and reinforce for me the belief that there must be emphasis on the uniqueness of the individual child's need from the beginning of schooling. Small groups of children, varying in composition according to the activity to be undertaken, are likely to be more efficient units for learning than class groups, and there is likely to be a need to develop both easy means of evaluating rapidly the stage of development a child has reached, and adequate material to enable him to gain more, closely directed, experience in handling it in such ways as to remedy deficiencies and accelerate development.

At present, work is being undertaken with 180 children aged five, seven and nine in a single school in Melbourne, on tests which require the children to arrange objects in order, produce equivalent groupings, add items by abstracting properties, form new classifications, and manipulate superordinate and subordinate classes. A longitudinal study of aspects of development will now be possible. The five-year-olds are an appropriate group for such a study.

Miss Nixon's work has been accepted by the University of Melbourne as suitable for her to be enrolled as a Ph.D. candidate, and the necessary formalities have been completed. The Council retains the right to put out interim reports or progress reports as it sees fit.

Word List for Australian Schools

As a result of her consideration of the role of language in concept development, Miss Nixon arranged some of the words recorded in *A Word List for Australian Schools* into related groups, believing that this might assist teachers in language and vocabulary development. Reports from a small group of practising teachers, who were already using the original list for spelling purposes, did not encourage us to consider any extension of the work.

PUBLICATIONS

BOOKS AND PAMPHLETS

A Field for Many Tillings, W. C. Radford

An edition of 750 copies was published of this survey of research into education in Australia: 230 complimentary copies were distributed, and one hundred have since been sold. One Australian review has appeared, and Dr. R. W. B. Jackson reported at length on it in the Ontario Journal of Educational Research, October 1964. Retail price was fixed at 7/6.

A Brief Guide to Australian Universities,* M. Hudson, T. S. Duff

An edition of 1,250 copies was printed: 290 complimentary copies were distributed, sixty copies provided to the Department of External Affairs, and 200 have since been sold. No reviews or comments upon it have appeared, and I propose that the Council no longer consider the publication of such a guide as one of its functions. Retail price was fixed at 15/-.

An Assessment of the Cuisenaire-Gattegno Approach to the Teaching of Number in the First Year at School, R. W. Rawlinson

This is the seventy-eighth in the ACER Research Series, and is based on a thesis on the topic submitted by Mr. Rawlinson as partial requirement for the honours degree in Bachelor of Arts in the University of Sydney. In it he evaluates the effectiveness of a 'traditional' approach to number work and the Cuisenaire-Gattegno approach to the same general goals. An edition of 1,250 copies was published. Three hundred complimentary copies were distributed and the book is now on general sale. A small publicity leaflet has been prepared to explain the nature of the publication. It is too early for reviews to have been received. Retail price was fixed at 10/-.

Aspects of Reading in the Primary School, E. M. Bannan and others

This collection of statements of research into various aspects of reading in primary schools was presented, not in duplicated form but in spiral-bound form, and was therefore, I think, much more readable. The circumstances leading to the production of a

* The Council resolved that it would not produce another edition of *Brief Guide*.

limited edition were explained in last year's annual report; 350 copies were printed, and 160 complimentary copies distributed. No reviews have been received. For the small number of purchasers expected, retail price was fixed at 15/-.

Matriculation Calculus

I have already referred to the production of this programme. Outside assistance was obtained both to type the textual material with its abundance of specialized symbols and to draw the many diagrams which are an integral part of the programme. Because we thought that some users would wish to use only parts of it and that others would find, when using the full programme with a class, that its separation into sections of reasonable size and upon separate aspects of the calculus would help in handling differences in individual progression, the programme was prepared in sections, each separately stapled, but with punched holes and covers which enable all to be kept together if desired. This method of presentation, apart from the favourable reception it has had, has allowed us to add to the programme a further small section dealing with the exponential function and a larger section dealing with the differentiation of trigonometric functions.

All the above were prepared by Council staff or for the Council. In addition, we published three other volumes prepared by others but thought to be useful for teachers.

Listening Aids Through the Grades, D. H. & E. F. Russell

This is a companion volume to the well known *Reading Aids Through the Grades*. It required slight adaptation for Australian use and this was done before publication.

Study Type of Reading Exercises—Secondary Level, Ruth Strang

The original USA edition was adapted for Australian use and published some time ago. When the revised edition appeared it was printed.

Books for the Retarded Reader, J. Hart

A special supplement was prepared by Mrs. Hart and published in order to keep this book up to date for the many teachers who use it. A completely revised edition is in the press now.

During the year two Information Bulletins, one Research Bulletin, and several more general bulletins will have been produced and distributed. Information Bulletin No. 43 (IB 01/65) reported *Some Observations on Mathematics in Primary and Lower Secondary Schools in England and the United States of America* made by Mr. Keeves in February and March of 1965; Information Bulletin No. 44 (IB 02/65) will give a brief overview of the state of *Programmed Instruction in Australia 1965*.

Research Bulletin No. 1 1965, entitled *Dependent Clauses in Latin*, was prepared by Professor H. A. K. Hunt and Mr. Keeves, and has already been referred to.

All three were on general distribution.

It has been customary in the past to make a fairly generous complimentary distribution of such bulletins, over and above those normally so distributed, to inquirers with a serious interest in the topics. This has become something of a financial embarrassment, and we have decided that except for a small number of copies reserved for such purposes—the number to be determined for each one—other copies will be sold at a price fixed to recover the individual cost of production and distribution. We have also reduced the free distribution to state Institutes.

A bulletin entitled *Arithmetic Abstractions: The Movement towards Conceptual Maturity under Differing Systems of Instruction* was prepared to present to interested readers a condensed version of Dean Brownell's report. Because the full report is not our property, this condensation was, by agreement with Dean Brownell, given limited circulation only, and it is not available for general sale or distribution.

REPRINTS

Each One Is Different, G. W. Bassett

This book has proved a popular publication and a reprint has been necessary. In order to reduce the cost, it has been made a paperback. It has been widely reviewed, and with the exception of one or two critical comments has been very well received. Further reprints will be necessary and I propose that for these there should be a regular revision of the appendix in which are listed the principal materials available in Australia which appear to be suitable to help in individualizing teaching and instruction.

A Word List for Australian Schools

This is still regularly used by a number of schools, particularly in Victoria. A slightly revised edition, in which corrections to alphabetical order were made and some supplementary words were added, was printed during the year.

Emergent Needs in Australian Education, R. W. B. Jackson

This report by Professor Jackson on his observations of Australian education in 1961 has been in steady demand since it first appeared, and a reprint was necessary.

BOOKS AND PAMPHLETS IN THE PRESS

Music Education: The Background of Research and Opinion, which is Mr. Vincent Horner's work for Part I of the music survey, is expected to be available for distribution in November. An edition of one thousand has been ordered, and it will retail at about 50/-.

Information Bulletin No. 44 (IB 02/65), *Programmed Instruction in Australia 1965*, has already been referred to.

A revised (third) edition of *Books for the Retarded Reader* is also with the printer. This is a commercial publication, which we publish by agreement with the authors. It serves a most useful purpose for many teachers, giving as it does in such brief compass helpful information to the teacher faced with the necessity of providing satisfactory reading to children with a wide range of reading ages.

BOOKS AND PAMPHLETS IN PREPARATION

Secondary Education Monograph No. 2

Mr. S. S. Dunn's monograph on measurement and evaluation in the secondary school is in an advanced stage of preparation.

Secondary Education Monograph No. 3

Dr. Cunningham's work in preparing this account of Miss Ross's ideas and practices as a headmistress of Melbourne Church of England Girls' Grammar School will include a discussion of the place in secondary education of the comprehensive school. A considerable amount of modification has been done. I expect that the final manuscript will be in our hands before the end of 1965.

Choice Study

A preliminary report on what we have come to call the 'Choice Study'—the survey in a metropolitan area in Melbourne of reasons underlying choice of school, of course within school, of length of schooling and of vocation—has had only minor revision done to it during the year, because of pressure of other work. The analysis of the literature on early leaving prepared in 1962 by Miss Buckman must be brought up to date, as there is some later data for Australia, and a number of overseas reports and studies have appeared since the analysis was completed.

I was able to make some use of data from it in the Mackie Lectures.

PERIODICALS

The *Australian Journal of Education* now has a circulation of over 3,100. Collaboration between Professor Connell as editor and a special committee of the Australian College of Education has provided the opportunity desired by the College to have a more direct link with the *Journal*, in order to have included material of direct significance to and value to the membership of the College. The increase in costs which I anticipated in 1964 led to an increase in the subscription rate in 1965 from £1/1/- to £1/7/- Aust.

The arrangement made with the Johnson Reprint Corporation for reprinting back numbers has been completed, and it is expected that they will be available early in 1966.

Australian Education Index

The new format in which the *Index* is produced has been favourably received. It is, however, more costly to produce in this format for the limited number of copies we sell. A determined effort has been made over the last twelve months to increase the circulation and increase the use made of it both in Australia and overseas.

Reference copies accompanied a circular letter addressed to both subscribers and non-subscribers in Australia, UK, Canada, New Zealand and USA; the subscription rate was varied so that the unit cost to multiple-copy subscribers was lowered; a questionnaire regarding use at present made of the *Index*, and possible improvements to it, has been distributed to university departments of education, to teachers' colleges, and to libraries in other centres. Judgment about the desirable extent of use has no objective criterion to guide it, and I am expressing merely my own opinion

(supported by that the editress of the *Index*) that the *Index* is found most useful by librarians, but is very little used by staffs of universities or teachers' colleges.

There is a constant demand for regular cumulation. I have attempted to obtain funds for this from the Australian National Bibliographical Council, but without success.

The work involved in preparing the *Index* is mounting, and must somehow be reduced. The great amount of unpaid assistance given by the volunteer indexers, and the devoted service given by the editress and her assistant (Mrs. F. McPherson and Mrs. B. Hay) have made the *Index* a very valuable aid. It will, I think, be necessary for us to limit, regretfully, the journals and other material we cover in it rather than to expand it further.

Of the 147 copies of each quarterly number at present distributed, fifty-three copies go overseas to forty-three different centres and individuals. A further five copies are complimentary. Of the eighty-nine copies distributed in Australia, one goes to an individual, one copy goes to each of sixty-eight institutions, and more than one copy goes to each of nine institutions and organizations. There are two 'copyright' copies.

We have gone as far as we can in drawing it to the notice of potential users, and can expect only slow growth in future in its circulation. The difference in 1964-65 between income, £1,172, and cost of preparation (including salaries), printing and distribution was £2,666. A small part of this large gap was due to the cost of printing larger quantities of several numbers for publicity purposes, and this cost will not recur, but the gap is a large one, met from Council income.

Library Bulletin

Only two Library Bulletins (Nos. 74 and 75) have been distributed during the year. Another is being prepared. As reported last year, the numbers distributed have been greatly reduced.

Bulletin for Psychologists, Nos. 1 and 2

This Bulletin, which has been developed to replace Test News, which had not been published for some years, has been very successful, and one thousand copies of each issue are now distributed. It publicizes not merely tests, but all the Council's work of interest to psychologists and includes minor research reports not suitable for journal publication. It is issued twice yearly. No. 3 will be released prior to the 1965 annual conference of the Australian Branch of the British Psychological Society.

Members of staff have prepared papers for publication elsewhere than through Council channels, and others have given addresses which have been printed or reported in various journals.

Miss Nixon had the following articles published: 'Judgments of Size in Shape Constancy' (in *Aust. J. Psych.* 1964; 16, 2, pp. 97-101); 'Studying Logical Processes in Young Children' (in *Ed. Mag.* (Victoria), 22, Apr. 1965, pp. 122-129); 'An Off-campus University Housing Scheme' (in *Aust. J. Higher Ed.* 1964; 2, 1, pp. 21-28).

Mr. Dunn contributed to a book entitled *Innovation and Research in Education*, prepared by Mr. Michael Young of the Institute of Community Studies and published by Routledge and Kegan Paul, an article on 'Educational Research in the Light of Australian Experience' which appeared in the Appendix to the book; to *Education for Australians* a chapter on 'Examinations'; to the Victorian *Educational Magazine* a descriptive article on the rationale of the Commonwealth Secondary Scholarship Scheme and its operation in Victoria; and to the *Geography Teacher* a summary of a talk on 'Evaluation in Geography' given to the Geography Teachers' Association of Victoria. His paper on 'Problems of Assessment in a System Catering for Individual Talent' delivered to the sixth annual conference of the Australian College of Education in Brisbane will be published in the proceedings of that conference.

My own contribution to *Education for Australians* dealt with educational research in Australia. *Tasmanian Education* for May 1965 printed the text of an address I gave to the Tasmanian Institute for Educational Research on the development and importance of language, with the title 'Mother Wit and Mother Tongue'.

I confess to have been somewhat taken aback to discover that the award of the Mackie Medal to the Council in 1964 for its work in education carried with it the obligation that I was expected to give two public lectures in Sydney early in 1965. These were given in the University of Sydney on April 28th and May 4th on the subject 'Education in Australia for Personal and National Development'. By agreement with Dr. I. S. Turner, they will be published both in *The Forum of Education* and as a special single paper in similar format to that given to the first of the series, given early in 1964 by Sir Fred Schonell, with the title *Challenge to Education*.

TEST AND MATERIALS DEVELOPMENT DEPARTMENT

Officer in Charge: Mr. T. M. Whitford

TEST DEVELOPMENT DIVISION

The activities of the Council in test development fall into three classes—namely, tests to be sold through the Distribution Services Division, tests produced for the use of the Testing Services Division, and tests developed under contract arrangement with some outside body. For brevity these three classes will be referred to as tests for sale, tests for testing services, and contract tests.

Tests for Sale

1. *Decimal Currency Revisions*, Miss J. Russell

Because many ACER tests contain currency items, it has been necessary to prepare replacement items for use in these tests. This includes general ability as well as arithmetic tests. For the general ability tests quantitative items of similar difficulty, but not involving money, are being used and the changeover should proceed smoothly. Arithmetic tests present more problems, as questions using currency are essential and norms are not likely to stabilize for a few years.

2. *Phillips Occupational Preference Scale*, Mrs. J. Barnes & Mr. D. M. Bennett

The author of this scale prepared a manual and discussed this on several occasions with test development staff. The format of the scoring keys, which are rather complicated, was worked out by Mr. Bennett in consultation with the author. The scale has now been published.

3. *General Ability Test, Department of Labour and National Service*, Mrs. J. Barnes & Miss J. Russell

This test with six short sub-tests is being prepared for exclusive sale to the Vocational Guidance Section of the Commonwealth Department of Labour and National Service. It is being developed in close collaboration with Department officers. All of the sub-tests are now either in final form or very close to it.

4. *Higher Test RQ Revision*, Mr. T. M. Whitford

Work has commenced on the revision of this test which has been in use for several years by the Vocational Guidance Bureau of the Department of Labour and Industry of NSW.

5. *Seville Diagnostic Tests*, Mr. D. M. Bennett

Work has been completed on the revision of the three decimal tests, and the manuals for the decimals, fractions and number tests.

6. *Lovibond Object Sorting Test*, Mr. T. M. Whitford

Arrangements have been made with Dr. Lovibond of the Psychology Department of the University of Adelaide to publish his Sorting Test which consists of an objective scoring for a modification of the Goldstein-Scheerer Object Sorting Test.

Tests for Use by Testing Services

1. *Cooperative Scholarship Testing Programme*, Mrs. L. Harold, Miss J. Russell, Mr. L. Blazely, & panel members

English and Mathematics (Levels I and II): these four tests were prepared with the assistance of advisory panels and will be used in the 1965 programme.

2. *Victorian Primary Schools Testing Programme*, Mr. G. Whitehead

The Basic Skills Mechanical and Problem Arithmetic tests were modified for use in Victoria, and a Mathematical Ideas test developed in trial form, used in 1964, and a final version developed this year. Mr. G. Whitehead of the Victorian Education Department was seconded to develop the latter test.

3. *Pre-matriculation Chemistry (Victoria)*, Mr. L. Blazely & panel

Part IV of the test was completely rewritten to conform to the revised syllabus in chemistry now used in Victorian matriculation classes.

4. *Arithmetic Test for Victorian Nursing Council*, Mr. L. Blazely

One final form has been prepared. Additional material has been given trial runs and a second final form will be ready soon.

Contract Tests

1. *NSW Public Service Board*, Miss J. Russell

The usual general ability test was prepared.

2. *Commonwealth Selection Tests: Third Division Forms C & D*

Form C was normed early in the financial year, and Form D more recently.

3. *Commonwealth Secondary Scholarship Examinations*, Messrs. G. Allen, L. Blazely, G. Gosling, K. Moritz, T. Whitford, plus panel members from ACER staff and outside organizations

Four papers—Written Expression, Quantitative Thinking, Comprehension and Interpretation (Sciences), and Comprehension and Interpretation (Humanities)—were prepared with the assistance of panels of experienced teachers.

4. *Commonwealth Public Service Board: Advanced Level General Ability Test*, Mrs. J. Barnes

Items for this test have been seen by the appropriate officers of the Board and will be given an experimental trial shortly.

5. *Commonwealth Public Service Board Graduate Allocation Battery*, Mrs. J. Barnes

This test battery is being approached experimentally. The aim is to develop tests which can help the Board select graduates who are likely to succeed in the wide range of administrative occupations of the Public Service. Action to date has been mainly an exploration of the literature and discussions with people likely to provide ideas.

6. *PSSC Diagnostic and Survey Tests*, Mr. L. Blazely

The Victorian Education Department provided the necessary funds for the development and printing of the trial forms of these tests. Two forms of each diagnostic test for six units were prepared by a panel working under the direction of Mr. Blazely, and also two forms of each of the two survey tests. Results of the trial tests are now reaching ACER for analysis and the preparation of the final forms.

7. *WA Leaving English*, Mr. G. Gosling & Mrs. L. Harold

The usual comprehension test which is used as part of the Leaving Certificate examination in English in Western Australia was prepared.

8. *NSW Attitudes and Habits Survey*

When the testing programme in NSW was initiated it was envisaged that, after the Basic Skills tests were developed, experimental work could begin on the objectives of the curriculum listed under the headings of Knowledge, Attitudes and Habits. The Director of Primary Education has been particularly keen to have some assessment made in the Attitudes and Habits area. Work on additional tests in the skills area has been postponed until cur-

riculum changes are finalized, and an attempt is now being made to develop suitable measuring instruments to assess changes in the pupils' attitudes to others (pupils, teachers, community, etc.) and in the habits associated with physical and mental health.

A working paper on the topic was prepared by Dr. J. Staines, Senior Lecturer in Psychology at Newcastle University and previously Vice-Principal of Newcastle Teachers' College. This was followed by a full day conference at ACER to which we invited representatives of the Psychology and Curriculum Branches in Victoria. Dr. Staines came down from Newcastle and those directly involved at ACER attended, and also Miss Nixon. As a result of this conference some general ideas for testing were developed. Mrs. Barnes and Mr. Renehan worked on these further to produce a plan, and Mrs. Barnes has developed a range of items for consideration. Early in August a meeting will be held in NSW to study the possible item types and decide on plans for a pilot run in 1965. This aspect of the programme is likely to become a major operational research project, with a significance extending well beyond the immediate situation in NSW, out of which it has arisen.

9. *Overseas Publication of ACER Tests*

Junior Test B is being published in Italy and the *Rothwell-Miller Interest Blank* in Great Britain and France.

MATERIALS DEVELOPMENT DIVISION

Individual Mathematics Programme, Mr. J. Izard, assisted by Messrs. D. Drummond, D. Goodger, B. Haig & F. Smith

This project is the first major development project of the department. The ACER became aware of three groups working independently to produce materials for use in individualizing the approach to mathematics at the Victorian Grade 3-4 level. Messrs. Izard and Drummond at North Brunswick Experimental School had developed their material and given it extensive trial use. Messrs. Goodger and Smith at Tullamarine had tried out other materials. Mr. Haig at Buninyong, who had been in close contact with ACER, had also developed and tried out a lot of material, had given a great deal of thought to the type of material required and had prepared plans for further work.

The ACER decided to call a meeting of the authors, and placed before them proposals for developing a kit which would combine the best features of all and which would be developed with the needs of all Australian states in mind.

Agreement was reached and as a result the ACER has obtained the secondment of Mr. John Izard to its staff for an initial period of one year, and the authors have formed a working party. For publication, the Council is dealing only with Rigby's Ltd. of Adelaide, who are providing royalties in advance to meet development costs. An executive committee consisting of Mr. Dunn, Mr. Cawte (representing Rigby's) and Mr. Drummond (representing the authors) is directing the overall policy of the project. Messrs. J. Keeves (ACER), L. Blazely (ACER), R. Cowban (Victorian Education Department), and P. Hughes (Tasmanian Education Department) are acting as technical consultants, and each state has provided a member of its Curriculum Branch to act as a curriculum consultant. The first kit (Level B) for Grades 3 and 4 will be available by the commencement of the school year in 1966, and a second kit (Level C) for higher grades is being planned. Two new members have been added to the working party (Messrs. D. Maddern and G. Whitehead), and it is hoped to arrange for a further secondment for Mr. Izard. A report on problems in the preparation of a Level A kit is to be undertaken.

The kit has been developed in such a way that it is extremely flexible and capable of being used in many different ways by teachers, who can also add their own material to the kit.

Reading Materials

The WA Reading Improvement Scheme and the Encyclopaedia Britannica Literature Samplers (Junior and Secondary) have been examined in detail and as a result ACER will be distributing both of these schemes. It is envisaged that supplementary Australian material will be produced by ACER for distribution with the two levels of the Literature Sampler.

SRA Writing Skills Laboratory, Mr. D. M. Bennett

Classroom trials at two high schools and two technical schools are in progress.

Spelling, Mr. D. M. Bennett

A critical survey of materials available for teaching spelling is being undertaken. This will cover materials produced by the Scottish Council for Research in Education, by the New Zealand Council for Educational Research, the ACER Word List, the Australian Programmed Spelling 3690 (APS 3690—Australian material published by Hill of Content Publishing Co. Pty. Ltd.), SRA Spelling Laboratories, and the laboratory-type material produced by Mr. Keeves assisted by Mr. Haig. When this report is

available a decision on materials development in spelling will be undertaken.

Undoubtedly the highlight of activities in 1964 for this department was the preparation of the four papers for the Commonwealth Secondary Scholarship Examination. The time available for preparation was short, so members of other staff departments, as well as panels of teachers, were called in to help. The Victorian Education Department seconded three teachers—two of whom had completed the B.Ed. Measurement course given by ACER staff. The reputation of the Council as a test construction organization would have been severely damaged if the tests were found wanting, and Victoria did not lack critics of the scholarship scheme. After the decision was taken to use the tests in Victoria, NSW and Western Australia sought permission to use the tests for one-year scholarships. NSW sent two staff inspectors, Mr. E. Barker and Mr. E. Colman, to scrutinize the items for the trial and final forms of the test. The Victorian government printer worked against the clock and helped in all the critical problems of a first-up printing. On the Friday night following the examination on the Wednesday and Thursday, Mr. Dunn faced the Victorian Chapter of the Australian College of Education. The verdict of the members of the College, a majority of whom were principals of schools, was virtually unanimous that the papers were excellent. But the highest praise of all came from the candidates who took the test. Report after report reached the Council that candidates were exhausted but had *enjoyed* taking the tests. Confirmation that the tests had been a success in meeting a particular need came this year when NSW and WA chose to participate again, and Tasmania joined in the scheme.

The Commonwealth government has now signed a three-year contract with ACER to produce the tests for 1965-67 inclusive, at a figure which includes a provision for research aimed at improving the effectiveness of the tests but not for examining the many general problems associated with the scholarship scheme, such as its social effects. The Commonwealth considers these fall within the general research charter of the Council.

The 1965 tests were given on 28th and 29th July. Because the testing date was brought forward and decisions about participation by the states were not made until this year, test development had to proceed once again with a tight schedule. We again received help from the Victorian Education Department which seconded Mr. Graham Allen part time, and also from a panel of teachers

who prepared questions. Two staff inspectors from NSW, Mr. E. Barker and Mr. T. Payne, also helped in final preparation of items for the trial and the final versions of the paper. The NZCER again helped in the trial testing programme.

Although not as spectacular as the CSSE, the provision of the diagnostic tests for the PSSC course is perhaps a more fundamental development. Here, for probably the first time in Australia, diagnostic tests are being developed officially as an integral part of a curriculum project. It is envisaged that, when completed, the tests can be marked by the students (or the teacher) and the scoring key will direct the pupil who makes mistakes to appropriate learning cards or text materials. The major purpose of the tests will be to improve the learning of the individual pupil and become a contribution to individualizing instruction. The initial reaction of teachers to the trial forms of the tests has been most favourable.

The IMP project is also, we believe, another milestone in the work of the Council. Here we have curriculum material, aimed to help teachers individualize instruction, being developed by a person working full time, assisted by practising teachers who are testing material in their own classrooms. The technical resources of the Council are being used in many ways, and our professional standing is providing cooperation from Departments that would not be forthcoming to an individual working alone. Publishing of this material would normally be well beyond the Council's financial resources.

The development of materials poses many problems for the Council. Projects such as the IMP kit would, if carried out in the USA, be financed with substantial grants from government or foundation funds. The Council does not have available such funds.

Questions such as the degree to which the Council can commit its resources to development are becoming urgent, and during the next year full consideration must be given to them.

EDUCATIONAL SERVICES DEPARTMENT

Officer in Charge (on leave): Mr. M. L. Clark
Acting Officer in Charge: Mr. W. T. Renehan

TESTING SERVICES DIVISION
Mr. W. T. Renehan

This division is now organizing a number of major programmes and several minor ones. Comments on its activities will follow a brief statement on each programme.

NSW Basic Skills Testing Programme

In September 1964 approximately 159,000 Grade 3-6 pupils in 1,233 NSW Departmental schools were tested, using the Form X battery. The reading, spelling and arithmetic tests in this battery were also used in 1962, but the study skills tests and the listening tests were used for the first time in 1964.

In addition, 14,830 Roman Catholic children from 129 schools and 3,235 children from 26 other non-government schools participated.

The material for the 1965 programme was despatched in July for 202,396 pupils from 1,559 schools, government and non-government. In a selected group of schools the tests are being used this year in place of mid-year examinations, and if this proves successful the programme will probably be moved forward to mid-year.

The steady growth in numbers participating indicates that this programme is accepted by the teachers of NSW. Approximately two-thirds of all Grade 3-6 pupils are now tested in the programme.

Territory of Papua and New Guinea Basic Skills Testing Programme

The Primary A schools in New Guinea follow the NSW Curriculum, so they can use the same tests as NSW. In 1964 the programme covered 49 schools and 2,160 pupils, and in 1965 43 schools and 2,272 pupils will participate.

Interpretation of these results, however, must take account of many differences between the Territory and New South Wales. The parents of the Territory children are, in the main, skilled tradesmen, clerical workers, farmers or professional people. The classes are smaller, schools generally well equipped, but changes of teachers are common.

This year (1965) those tested will probably include a class of indigenous children at Coronation Street school in Port Moresby selected to attend this Primary A school because of their progress in Primary T schools.

Mr. Dunn was present in several schools in 1964 while the tests were being administered. Teachers considered the tests most helpful to them.

Victorian Primary Schools Testing Programme

In November 1964 a mathematics survey was carried out using ACER Arithmetic Tests Parts 1-6 for a 1946/64 comparison and three other tests, VA1 (Mathematical Ideas—trial forms), VA2

(Computational Skills: modified NSW Basic Skills Test—Mechanical Arithmetic), and VA3 (Problem Arithmetic: modified NSW Basic Skills Test—Problem Arithmetic) to establish baselines for future projects.

As was suggested in last year's annual report, the survey of 1963 showed growth in vocabulary and reading for meaning, no change in speed of reading, and a decline in spelling between 1946 and 1963. A report was submitted to the Department. An interesting sidelight was that schools with SRA Reading Laboratories showed a greater gain than schools without them. Since teaching competence is uncontrolled, no firm conclusions can be drawn.

The analysis to date of the 1964 data suggests that performance on computational skills is significantly lower than it was in 1946 in Grade 4, but that by Grade 6 this difference has either disappeared or has decreased to the point where it is no longer significant. (An exception is division, in which performance is still significantly lower at Grade 6, but smaller than the Grade 5 difference.) In the processes test, performance in both common and decimal fractions and on questions about areas shows improvement at all levels between 1946 and 1964.

The 1965 survey will use Test VA1 (Mathematical Ideas) and Test L (Listening), a special printing of the NSW Basic Skills Listening Test.

Members of the Victorian Curriculum Branch and ACER have agreed on tentative schedules for testing several years ahead.

Cooperative Scholarship Testing Programme

This programme, which began in Victoria, continues to spread. In 1963 fourteen NSW schools participated. In 1964 five South Australian schools joined. Now in 1965 two Queensland schools will participate, and some Western Australian schools have shown interest.

The 1964 programme had the following participation:

Victoria	28 schools	1,560 pupils
New South Wales	18 schools	601 pupils
South Australia	5 schools	214 pupils

So far, the following numbers have registered for 1965:

Victoria	30 schools
New South Wales	15 schools
South Australia	10 schools
Queensland	2 schools

Commonwealth Secondary Scholarship Examination

All of the printing and marking organization for this examination in 1964 for Victoria and Western Australia was carried out by this division. This involved recruiting and training about one hundred clerical workers for marking the objective tests, checking results, assisting in the organization of the essay marking, and providing the necessary data for use by the computer. The essay marking was handled by the chief examiner (Mr. G. Gosling) who also had some one hundred experienced English teachers to train and supervise. The system of using clerical assistants for all but the actual assessment of the compositions worked well. Mr. Noonan, whose firm, ICT, carried out the work on the computer, contributed greatly to the success of the project. For a project of this size on its first-up run it was surprising that more difficulties did not occur.

In the USA the objective answer sections of the paper would be marked by an optical scanner connected to a computer. Late in 1964 we made inquiries and found no such equipment then available in Australia. There was, however, a scanner which could convert appropriately marked sheets to a punched tape input for a computer. This division carried out a small study to see if this could be used for marking the scholarship examination. Unfortunately, students are not sufficiently precise in their marking for the machine to read accurately and there were too many rejected papers. Further investigation of methods of handling answer sheets showed that trained operators could punch responses from the answer sheets on to cards, and others verify these punchings, faster than markers could score with normal scoring keys. This was in fact equivalent to a double marking. From these punched cards the computer could be programmed to score, convert to standardized scores, and add. This eliminated other possible sources of clerical error. The non-objective section of Written Expression would be marked and the scores for the questions transferred to the computer for adding and standardization.

Having the pupils' answers in the computer would allow the usual item statistics to be computed more quickly and in more detail than would be possible by hand.

Pre-matriculation Physics and Chemistry Testing Programmes (Victoria)

This programme continues in Victoria only. Attempts to initiate it in NSW have not been successful, nor have other states shown interest. In 1964 the tests were taken by 2,531 students for physics

and 2,442 for chemistry. The introduction of the PSSC course and our own work on the preparation of diagnostic and survey tests for this course will lead to some revision of the physics programme for 1966.

University Colleges Testing Programme

The Advanced Scholastic Aptitude test was administered to 339 students seeking scholarships or admission to the colleges attached to the University of Melbourne. A small committee appointed by the colleges will later this year be conferring with us on future needs.

University Admission Testing Programmes

Law—Melbourne. Following a report to the Faculty of Law at the University of Melbourne on the contribution made by the tests additional to matriculation results the faculty decided to test only students for whom adequate matriculation results were not available. In 1965 we tested twenty-seven students.

Economics and Politics—Monash. The number of applicants tested was 607.

Ad Eundem Statum—Melbourne. Seven candidates were tested. Finances and therefore staff permitting, it is hoped to prepare a research report in the 1965-66 year incorporating a number of these university entrance studies.

Commercial Travellers' Association

Ten candidates were tested and the association assisted to select a scholarship winner.

Australian Society of Accountants

Sixteen candidates were tested. In the future tests developed by the Commonwealth Office of Education for the more general purposes of testing students in their home country will be used to meet the needs of the society.

USA Testing Programmes

Testing of applicants resident in Australia was conducted for various USA bodies. The details are:

College Entrance Examinations Board	42 candidates
Graduate Record Examination	3 candidates
Admission Tests for Graduate Study in Business Administration	5 candidates
Secondary School Admission Tests	1 candidate
Miller Analogies	11 candidates

There is no doubt this division is making a valuable contribution to the Council's activities. Financially it has had to be supported from trading surplus to meet overhead costs and printing costs for some of its projects. Activities are being carefully costed. A number of major projects, for example, Basic Skills, will be less expensive in printing charges and will therefore make a greater financial contribution to the division's finances. The aim is to make this division fully self-supporting except for any projects of a research nature which it undertakes and for which funds will be budgeted in advance.

There are a number of additional programmes worth thorough investigation and these will be explored as time permits.

In 1965 this division, using a computer in Melbourne, will arrange to carry out, at the expense of the Department of Education of the Territory of Papua and New Guinea, the standardization, addition of marks and print-outs in several forms (including a pupil certificate) of the T Schools' Primary Final Examination. This will enable a large number of teachers to continue teaching who would otherwise be employed handling the skilled clerical work of this examination.

ADVISORY SERVICES DIVISION

Miss M. O'Donnell

The contribution of this division to the practice of education and psychology can be very valuable. It is through the work of this division that many teachers have their only personal contact with ACER. In 1964-65 the division answered approximately 1,500 letters, 600 telephone calls, and held 350 interviews, all in some way seeking professional assistance. Many meetings have been addressed and displays arranged—or assisted in—in all states. There are two major displays each year—one at the annual conference of the Australian College of Education, and one at the annual conference of the British Psychological Society (Australian Branch). This year a major display was also presented at the Sydney Teachers' College Post-College Conference in January, at which two thousand teachers enrolled.

Visitors seeking information about Council activities are now having their activities at the Council headquarters organized by this division. This year lecturers at Mercer House and at the Technical Teachers' College arranged for students to visit ACER in groups to learn about the Council and this arrangement was handled by the division. A visit by a group of African teachers was also organized.

Advisory activities of the Council are not confined to the staff of the division. Every week there are requests for advice by letter, phone calls or visits, on a myriad of matters which are handled by other members of the Council's professional staff. Not a few of these calls are from overseas visitors.

The *Bulletin for Psychologists* was launched this year. Two bulletins are to be issued each year. The aim is to keep psychologists informed of work at ACER of interest to them, to provide information about tests, and to act as a clearing house for test information of value but not suitable for journal publication. The *Bulletin* has been well received, and obviously satisfies a need.

DISTRIBUTION SERVICES DIVISION

Mr. E. McIlroy

This division has had a very busy year. There have been nineteen thousand invoices written, and nearly five million units have been handled. (A unit is a separate article—a test, an answer sheet, a record book or a complete reading laboratory.) Invoices are approximately equally divided between SRA materials and other items. Orders placed by ACER with local printers and publishers and with overseas suppliers arrive at the rate of about 120 stock items and one hundred 'specials' each month. These 'specials' are mostly tests ordered from overseas publishers which do not sell in sufficient quantities to justify being held in stock.

The despatch section also handles the despatch of library loans, complimentary copies of publications, the *Australian Education Index*, testing programmes such as Basic Skills, STAV material, and in 1964 was responsible for the receipt of all the CSSE material when returned from the schools.

Increased sales have made it necessary to increase stock, both of material required for sale, and for testing programmes.

The immediate problems of higher costs occasioned by proposed customs charges on imported SRA record booklets was resolved by the Customs Department granting admission under by-law, duty free.

PUBLISHING SERVICES DIVISION

Mr. I. Fraser

All of the Council's publishing is now being handled by this division. The special knowledge of printing possessed by its officers undoubtedly produces a better quality and, in many cases,

cheaper product. During the last year more use has been made of the electric typewriter to produce copy for a variety of attractive but relatively inexpensive publications printed by the offset lithographic process.

To date, the role of the division has been essentially a service one to the rest of the organization. However, the division could begin to take a more positive role by recommending, for example, new publishing ventures in line with Council policy or organizing the revision of such existing items as the Primary School Studies Series.

LIBRARY

Librarian: Mrs. D. L. Wells

Borrowings have increased again this year. The number of individual borrowings has grown from 4,198 to 5,214, of which staff loans comprised 2,136. The main increase was in outside borrowings—from 2,180 to 3,180. About 660 of the borrowings were of teaching programmes and 630 were of tests. One of the direct results of the work done by the Advisory Services' officers is to increase the requests for help from the library, and this is a valuable service to those who are not able to use other resources. Growth in demand on the library due to one other factor is, however, a cause for concern.

There was an early period in the Council's history when its library held the only copies of many journals dealing with education and psychology available in Australia. Then the development of university departments in education and psychology, and of the holdings in those subjects in the main university libraries, eased the demand upon the Council's stocks. Recently, however, it has become obvious that it is not possible for many of those engaged in research or advanced study, both within and outside universities, to obtain either on loan or for reading 'on the spot' materials which they require, and many users for whom inter-library borrowings from universities had been a valuable source of reference materials now find such borrowings refused. We have been approached by the Department of the Army through its Psychology Service to see whether an effective inter-library loan service outside the university holdings might be organized, and have been giving some thought to the possibility.

Other ways of rationalizing library work must be sought. It is manifestly wasteful, for example, to have a number of different

libraries each cataloguing the same books and pamphlets, and some cooperative scheme can, I believe, be devised to reduce the load on individual librarians, for whom it is a heavy and responsible task.

During the year 306 new books, 163 new tests, 40 programmes, and 285 new pamphlets were added to the library, together with the following new journals: *API Newsletter* (Aust.); *American Educational Research Journal*; *Arithmetic Teacher* (USA); *Australian and New Zealand Journal of Sociology*; *CRAC* (Great Britain); *Journal of Research in Music Education* (USA); *Minerva* (Great Britain); *New Education* (Great Britain); *Journal of Personality and Social Psychology* (USA); *Programmed Learning* (Great Britain); *Psychology in the Schools* (USA); *School Mathematics Study Group Newsletter* (USA); *The Use of English* (Great Britain); and *Vocational Aspects of Secondary and Further Education* (Great Britain).

We cancelled subscriptions to: *The Journal of Personality* (USA), *The Toronto Education Quarterly*, and the *New South Wales Public Library Bulletin*.

Losses from, and known deficiencies in, library holdings caused and still cause concern. A stock-taking early in the year of book holdings revealed that a number of important books, some of them acknowledged almost as classics, such as Woodworth's *Experimental Psychology*, were missing from the shelves without record of borrowing. Open access shelving, and encouragement of borrowers to use the library resources to the full, have, I think, more advantages than disadvantages, but such losses are disturbing and lending and follow-up procedures have been reviewed to reduce if not entirely to prevent them.

STAFF

At the time of writing, the Council has on the regular staff fifty-nine full-time staff, including two secondments, and seven part-time staff.

STUDY LEAVE AND SPECIAL ASSIGNMENTS

Mr. M. L. Turner is fully engaged upon his doctoral studies at the University of California at Berkeley, and is not expected to return to duty until mid-1966.

Mr. M. L. Clark arranged to take study leave at the University of Western Australia, where he has begun studies for his Ph.D. His thesis will deal with aspects of ability in reading. The University of Western Australia has agreed that he continue his studies under my supervision when he returns to duty here in 1966.

Mr. J. P. Keeves attended conferences on the IEA Project at Chicago (February 1965) and Hamburg (August 1965), and spent four weeks in late February and early March examining work being done in USA and UK in primary and junior secondary mathematics.

At the invitation of the Minister of Education in Tasmania, I visited Tasmania from July 25th to July 29th in order to discuss with those concerned problems associated with the proposed new Schools Board and its control of examinations and accrediting. A further trip is planned for early September.

Mr. Dunn spent two weeks in New Guinea in October 1964 at the invitation of the Department of Education, and another two weeks in May-June 1965. His particular concern in the former visit was an overview of the primary system, in particular the Primary T schools, with a view to helping with problems of educational testing, and in the latter visit to participate in discussions relating to examinations at primary and secondary school levels.

Mr. Blazely and Mr. Keeves attended the UNESCO Seminar on mathematics held in Sydney in January 1965. Each contributed a working paper, and they jointly acted as leaders of a working party dealing with testing and evaluation.

RESIGNATIONS

Miss B. Roberts resigned as assistant librarian and went to the UK with the intention of furthering her studies as a librarian.

Mrs. L. Harold, who joined the staff of Test Development Division in April 1962, resigned in August 1965 for domestic reasons.

Mr. G. Pringle, who had accepted a short-term appointment early in 1964 to help with the IEA project, remained with the Council until the end of 1964 and gave very valuable help both with that project and with the preparation of the calculus programme.

Mr. Duff has been appointed as a lecturer in educational psychology at the University of Auckland, and takes up his appointment there in February 1966. His thesis on the relationship between certain measures of listening comprehension and rate of

presentation of the material was given very high praise by the examiners appointed by the university, where he spent his study leave in 1963.

Resignations from the office, clerical and technical, sales, and distribution staff were: Mrs. L. H. Beales (née Dineen), Misses C. A. Griffiths, S. E. Jones, M. Kreuzer, J. Lloyd-Smith, Mrs. R. W. M. Peacock, and Mrs. H. M. Rignold.

APPOINTMENTS

Miss Terrill Sloss was appointed as Assistant Advisory Officer in October 1964. Miss J. Henchman (now Mrs. F. Barnes) was appointed as a Research Officer in the Test and Materials Development Department in January 1965. Mrs. Barnes had previous experience in Australia with COE and Department of Labour and National Service, and in the UK as a research officer with the National Foundation for Educational Research. Mr. K. Moritz was appointed in February 1965 to assist with the preparation and administration of the Commonwealth Secondary Scholarship Examinations for 1965. Miss J. McColl was appointed as assistant librarian in April 1965.

Miss E. Watson, who had been in charge of our technical assistants, was appointed in January as a Research Assistant to assist in test preparation and analysis, where her increasing qualifications in psychology and statistics would be more effectively used.

Other appointments made in the general office, technical and clerical pool, and sales and distribution, were Misses T. Considine, L. Henderson, H. Watts, Mesdames B. Bradly, M. E. Clarke, M. Corfe, C. Domini (Part-time), L. Elliott (Part-time), J. King, L. Phillips, H. Watts, and Mr. C. Welsby.

SECONDMENTS

Mr. J. Izard was seconded from the Victorian Education Department in February 1965 for an initial period of twelve months to develop the Individual Mathematics Programme.

Mr. G. Allen was seconded by the same department for a period of six and a half weeks to assist in the development of the humanities examination in the Commonwealth Secondary Scholarship Scheme for 1965.

Mr. G. Whitehead has spent several short periods attached to the staff, working on the development of suitable tests of mathematical understanding for the testing programme in Victorian primary schools.

As indicated earlier, Dr. R. N. Farquhar's secondment from CSIRO for the survey of education and training in agriculture has been extended. Mr. Vincent Horner's six-month secondment from the Western Australian Education Department for the survey of literature on music ended in December 1964.

REORGANIZATION

Mr. I. C. Fraser was appointed in charge of publishing activities. This left Mr. Bennett free to work on the development of educational materials.

Mrs. C. Bayley was given overall responsibility for the control of the work of the group of clerical and technical assistants (other than staff in the general office) who assist in the collation and statistical treatment of the data flowing in from many of our projects.

REGULAR STAFF TRAVEL

Mr. Dunn and I attended the sixth annual conference of the Australian College of Education in Brisbane in May 1965. Apart from his two visits to New Guinea, to which I have already referred, Mr. Dunn has also visited New South Wales on several occasions to confer on such matters as the Basic Skills Programme.

Mr. Dunn and Miss Nixon also attended the twentieth conference of the Australian branch of the British Psychological Society in Armidale. Miss Nixon is the honorary secretary of the Standing Committee on the Profession of Psychology, and Mr. Dunn the chairman of this committee and also a member of the executive of the branch.

I have taken advantage of visits to Sydney in connection with the UNESCO Committee for Education, and the Britannica Australia Awards, to visit the education department there, the Commonwealth Office of Education, and the University of Sydney, and the occasion of the Mackie Lectures gave me several opportunities to visit Sydney Teachers' College.

I spoke to the South Australian Institute for Educational Research in September last, along with Professor Russell, on the

UNESCO mission to Northern Rhodesia in which we were both involved; and I was invited by the Tasmanian Institute to address a special meeting in December of last year. Both on that occasion and during early September at the time of the meeting of the research officers of the State Department of Education, I was able to discuss matters of interest with senior officers of the department.

As national secretary of the Science Teachers' Association, Mr. Keeves visited Brisbane for the fourteenth annual conference.

Mr. Fitzgerald has so far visited New South Wales, Tasmania, Western Australia and South Australia in his examination of recent developments in secondary education.

Dr. Farquhar visited all states and the ACT in connection with his survey of agricultural education.

Miss O'Donnell has visited Queensland, New South Wales and Tasmania in connection with displays of equipment and talks to teachers.

Mr. Whitford and Mr. Blazely visited New Zealand for a week in connection with trials of new educational tests.

Mr. McIlroy visited Sydney to clear up several outstanding matters in connection with orders lodged by the Department of Territories for New Guinea and with orders lodged by departments of the state government, in which there was some conflict of requirements in connection with printings of tests with and without decimal currency notation.

AUSTRALIAN BROADCASTING CONTROL BOARD

My appointment as a part-time member of the Control Board, renewed for three years in November 1964, has involved me in a number of regular meetings and several special ones, but not over the past year in attendance at public inquiries into awards of licences.

The report on educational television to which I referred in my last report has been transmitted to the Commonwealth government, and is under its consideration.

COURSE IN MEASUREMENT IN EDUCATION

In Mr. Turner's absence, Mr. Dunn and I have carried on this course to the second-year students in the B.Ed. course at the University of Melbourne. Mr. Dunn carries the major share of the course. Many of the successful students keep in touch with us,

and are able to give us from time to time help in special projects requiring competent writers of examination questions who understand the close relationship between a stated course of objectives and the examination questions set on a course.

Two former students have recently had published small books on measurement. They are Mr. D. Edgar, *Examination Marks—Their Use and Interpretation*, and Mr. J. H. Theobald, *An Introduction to the Principles of Classroom Testing*.

THIRD UNIVERSITY IN VICTORIA

At the conclusion of the work of the preliminary committee advising the Victorian government on the establishment of La Trobe University, an interim council was formed and I accepted an invitation to be a member of that council.

WINSTON CHURCHILL MEMORIAL TRUST

I have accepted an invitation to act as a member of the Victorian Regional Selection Committee for Churchill Fellowships.

I would like to repeat what I have frequently said in other reports: I believe the Council is excellently served by a competent staff. The increasing number of requests we receive for advice and assistance is, I think, a direct reflection of the esteem in which the Council is held: an esteem due to the wide extent of the sound and devoted work of which this report is an indication.

FINANCE

Accountant: Miss P. M. Staurengi

THE CASH POSITION

In my last annual report I wrote: 'There are several points of concern . . . We need a substantial cash reserve, or substantial uncommitted liquid assets to secure a good overdraft. The amount needed will increase rather than decrease if sales go up, and as more contract work is undertaken for which advance payment is not made.'

When this statement was written the balance sheet at 30th June 1964 showed:

Cash at bank	£22,267
Investments—cost	£10,848 (market value £19,512)

At the present time, June 30th 1965, the corresponding figures are:

Cash at bank	£3,470
Investments—cost	£10,978 (market value £16,436)

In terms of cash the Council is nearly £19,000 worse off. This difference in the cash position is largely accounted for by

- (1) a trading loss of £2,758;
- (2) an increase in the value of stock of tests and materials of approximately £8,000. (It was pointed out last year that the stock figure was low. Sales are higher so more stock is needed);
- (3) the repayment of the building loan from the bank had to be met. We now owe £6,000 less than a year ago, but such a payment must be in cash.

For the 1965 financial year the cash position will require the most careful handling. To hold even the existing position it will be essential to budget for a 'trading profit' sufficient to cover the repayment of the bank loan and the expected increase in the value of stock to cope with a further increase in sales.

SALARIES AND THE PROFIT AND LOSS ACCOUNT

The main source of income for the Council is from the trading surplus, and the main item of expenditure is salaries, superannuation, and payroll tax, which account for over half the total expenditure (£98,000 out of £176,000). Unless we receive increased general purpose grants from the Commonwealth and states, or from other sources, it may be necessary to reduce staff if sales do not continue to increase in the necessary proportion. Some increase in test construction income is guaranteed for the next two financial years from the Commonwealth Secondary Scholarship Examination, but expenditure will also increase because of these examinations.

Increased grants would enable most of our general research activities to be financed directly from this source. This would allow any trading surplus, after meeting our commitments to the bank and for increased stock, to be used in development projects which

could ultimately increase the Council's income, in keeping existing tests and materials up to date (a necessary activity to maintain sales), and in undertaking specific research projects for which funds could be allocated in advance.

POSSIBILITY OF INCREASED GRANTS FOR RESEARCH

At the time of writing the position appears to be that, as a result of the request for an increased grant made to the Commonwealth and state governments, all the states will agree to double their annual grant provided that the Commonwealth does likewise.

In view of the request to the Commonwealth government for an increased grant, I thought it wrong to apply to the new Commonwealth fund for research—the Australian Research Grants Committee—for assistance in any research project.

I believe that the climate of opinion, even if not the optimism in the economy, is such that a carefully prepared approach to selected industrial organizations and trusts could yield a substantial, regular income. Such a move, however, requires a great deal of time, and expert advice would be required in its preparation.

SOURCES OF INCOME FOR 1964-65

General grants from the Commonwealth and state governments totalled £15,500 in 1964-65. This amount includes a special grant of £500 from the Victorian government for services given to its Tertiary Committee. In addition we received grants of £100 from the Tasmanian Teachers' Federation and £10 from the Headmasters' Conference of the Independent Schools of Australia. During the year £4,575 was paid into the Scientific Research Fund and £4,058 was spent. The amount spent included £500 from the Myer Foundation contribution, £1,000 from the Percy Baxter Charitable Trust for the calculus programme, and £1,843 of the total grant of £3,860 from the Calouste Gulbenkian Foundation—United Kingdom and British Commonwealth Branch—for the Music Survey. The £10,978 invested in shares brought in £761.

All the other income of the Council comes from:

(a) its trading activities: the sale of tests, materials, books, the *Australian Education Index* and the *Australian Journal of Education*;

(b) grants made for specific services given by the Council under contract or otherwise (for example, from the Commonwealth government for the preparation of examinations such as those for the Commonwealth Secondary Scholarship Scheme);

(c) royalties received from Australian and overseas sources which use ACER tests—we have, for example, tests used in New Zealand, UK, France and Italy;

(d) payments made by school systems, schools, or groups making use of a special testing programme such as the Basic Skills programme in New South Wales.

As I stated last year, from these last four sources of income we meet all the expenses involved in earning the income concerned, and a number of additional items which can only be met if the income exceeds the expenses.

After a five-year period (1959-60 to 1964-65) in which the total income of the Council for each financial year exceeded its expenses and encouraged development, the 1964-65 financial year shows a substantial loss of £2,758. The main reasons for the loss are:

(i) the effect of increases in staff made at the beginning of 1964;

(ii) the very substantial increases in salary arising from the Eggleston report on university salaries, which added £5,700 to the salaries bill for 1964-65.

The Council's financial situation at the end of June in 1965 has implications for future policy.

(1) The cash reserve position needs to be improved. This can only be achieved by budgeting for, and actually making, a profit over and above the bank repayment and any stock increase, or by building up the Scientific Research Fund with general purpose funds which are not spent immediately.

(2) Budgeting must be in terms of cash and not in terms of trading profit, and the actual cash position of the Council must be seen side by side with the profit and loss statement. Purchase of equipment for instance is normally considered an asset, and only depreciation appears against it in the profit and loss account, although it requires an outlay of cash. We have no cash reserves to turn into assets such as stock. Such payments must come from current earnings unless we convert our shares, etc., to cash—an action which would leave the Council with no readily negotiable asset and which would help only in the short term.

(3) The Director and Assistant Director will need to spend more time on financial matters at the cost of professional activities.

(4) It may be necessary as permanent staff leave to replace them with staff on short-term contracts or secondment. A two-year contract has some advantages, but in an emergency is even less flexible than six months' notice. Seconded staff, paid by ACER, are a possibility. The problem is to secure first-class people and to maintain a core of experienced staff. The necessary core of staff differs from one department to another.

Our small business advisory committee—Mr. L. Reilly and Dr. J. Pearse—to whom we are very much indebted for their interest in the Council's work and their practical advice, has helped us during the year to see more clearly both the need for tight financial control and for planned promotional activities. We hope that they will continue to have time to help us.

CONCLUSION

In a recent article in *Phi Delta Kappan* (June 1965, Vol. XLVI No. 10) Dr. Francis A. J. Ianni, who administers the US Office of Education research programme, expresses the view that at least in USA something like 'a golden age' is coming in educational research. Doctoral and post-doctoral training is obviously to be sponsored to provide the qualified people needed for the new centres, new projects, and new approaches to be supported. Under the (US) Public Law called the Elementary and Secondary Education Act of 1965, the US Federal Government is *inter alia* to give strong support to state departments of education for such purposes as planning, collection and dissemination of data, educational research and demonstration, and consultative services. But it is also to provide \$US100 million over a period of five years to construct national and regional research facilities. Already four of the latter are in embryonic form—in Pittsburgh where individualized programmes are under study, in Oregon where school-community relations and methods of making policy decisions and putting them into effect are the central topic, in Wisconsin where learning problems—how much, how early, how quickly, and how well, can children learn?—are being examined, and at Harvard where problems associated with psychological and cultural differences among children are the centre of concern.

In England, the problems of financing educational research have

been the subject recently of consideration by a special committee concerned with financing social science research, and recommendations have been made that it should be brought under the same umbrella as other social science research. Figures of the order of annual allocations of £E2½ million from the central government for educational research have been mentioned. Certainly in recent years the Department of Education and Science has by its special grants revolutionized the scene in England so far as educational research is concerned. Dr. W. D. Wall of the NFER has pointed to the need for enlarged training programmes to provide a sufficient flow of qualified research workers to enable good use to be made of the funds.

In Canada, we have news that an Institute of Educational Studies is to be set up at the University of Toronto, with a strong research orientation allied to post-graduate training. An initial grant of at least \$C2 million has been given by the provincial government. Dr. R. W. B. Jackson has played a considerable part in its establishment.

Similar needs to those being handled in the three countries referred to exist in Australia. The channels through which the needs may exert pressure on resources are not yet sufficiently clear to be effectively used, but I sense that we will soon have in Australia a far better situation for research than we have yet contemplated.

STAFF AT COUNCIL HEADQUARTERS

Frederick Street, Hawthorn, E.2, Victoria

At 27th August, 1965

Director:

W. C. Radford, M.B.E., M.A., M.Ed., Ph.D., F.A.C.E.

Assistant Director:

S. S. Dunn, B.A., B.Ed., A.B.Ps.S., M.A.C.E.

General Research Department:M. L. Turner, B.Sc., B.Ed., M.A.C.E. Chief Research Officer
(on leave)J. P. Keeves, B.Sc.(Hons), B.Ed., M.A.C.E. Acting Head of
Dept.

T. S. Duff, M.A.

R. T. Fitzgerald, B.A., Dip.Ed.

G. W. H. Gosling, M.A., Dip.Ed., A.I.L. (Fr.)

(Miss) M. Nixon, M.A.(Hons), A.B.Ps.S.

Test and Materials Development Department:T. L. Whitford, B.A., B.Ed.(Hons), A.B.Ps.S. Officer in Charge
(Mrs.) J. A. Barnes, B.A., Dip.Ed., A.B.Ps.S. (from Jan. 1965)

D. M. Bennett, B.A.(Hons), T.Dip. (London)

L. D. Blazely, B.Sc., B.Ed.

J. F. Izard, B.Sc., T.P.T.C. (seconded by Victorian Ed. Dept.,
from Feb. 1965)

(Miss) J. L. Russell

(Miss) E. Watson (from Jan. 1965)

Educational Services Department:M. L. Clark, B.A., B.Ed.(Hons), M.A.C.E. Officer in Charge
(on leave)

W. T. Renchan, B.A., B.Ed. Acting Head of Dept.

ADVISORY SERVICES

(Miss) M. E. O'Donnell, T.P.T.C.

(Mrs.) D. M. Bradshaw, B.A., Dip.Ed., A.B.Ps.S. (part-time)

(Miss) T. Sloss, T.P.T.C. (from Oct. 1964)

TESTING SERVICES

- (Miss) N. E. Morrison, B.A., Dip.Ed.
K. W. Moritz, B.Sc., B.Ed. (from Feb. 1965)
(Miss) J. E. Prior
H. J. Williamson

DISTRIBUTION SERVICES

- E. P. McIlroy Administrative Officer
C. R. Tiddy In Charge of Despatch
(Mrs.) M. E. Clarke (from Sept. 1964)
T. E. Coleman
T. M. George
R. W. Jupp
(Mrs.) M. E. Lane
(Mrs.) F. M. Rumball
(Mrs.) J. Russell
R. M. Tucker
(Miss) H. Watts (from Jan. 1965)
C. Welsby (from Jan. 1965)

Staff and General Services:

LIBRARY

- (Mrs.) D. L. Wells, B.A.(Hons) Librarian
(Miss) J. McColl, B.A. (from April 1965)
(Miss) L. Henderson (from March 1965)

AUSTRALIAN EDUCATION INDEX

- (Mrs.) F. E. McPherson, B.A.(Hons), Dip.Ed. (part-time)
(Mrs.) B. E. Hay, B.A.(Hons) (part-time)

PUBLISHING

- I. C. Fraser, M.A.
(Mrs.) N. Jakobsen, B.A.
(Mrs.) L. Phillips (from Nov. 1964)

ACCOUNTANCY

- (Miss) P. Staurengi, B.A., B.Com. Accountant
(Mrs.) F. A. Harvey
(Miss) M. A. Sharp

SECRETARY TO DIRECTORS

- (Miss) K. A. Saunders

OFFICE

- (Mrs.) S. J. Phillips In Charge
- (Mrs.) J. Bradly (from March 1965)
- (Mrs.) C. Domini (from Oct. 1964; part-time)
- (Mrs.) L. Elliott (from Nov. 1964; part-time)
- (Miss) D. B. Hayles
- (Mrs.) D. B. Jamieson
- (Mrs.) R. R. K. Jupp
- (Mrs.) P. I. M. Robin (part-time)

CLERICAL AND TECHNICAL ASSISTANTS

- (Mrs.) C. Bayley In Charge
- (Miss) T. M. A. Considine (from Feb. 1965)
- (Mrs.) M. Corfe (from Jan. 1965; part-time)
- (Mrs.) S. R. Larkin
- (Miss) S. J. Ross
- (Miss) M. G. Summers

CONTRIBUTORS TO COUNCIL FUNDS

The Council wishes to acknowledge, with thanks, the following contributions received during the financial year ended 30th June, 1965:

Australian Governments:

Commonwealth	£7,500		
New South Wales	2,860		
Victoria	2,070		
Queensland	1,100		
South Australia	670		
Western Australia	540		
Tasmania	260		
	£15,000	0	0

Teachers' Associations:

Headmasters' Conference of Independent Schools of Australia	10	0	0
Tasmanian State School Teachers' Federation ..	100	0	0

Trusts, Foundations, etc.:

Calouste Gulbenkian Foundation, United King- dom and British Commonwealth Branch (for Music Inquiry)	3,860	0	0
Miscellaneous	715	0	0
	£19,685	0	0

STATE INSTITUTES FOR 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 cooperating closely with it when occasion requires. In 1956, at a meeting held in Melbourne, these representatives formulated the following statement of the nature and functions of an Institute. In general, as the reports printed later will show, they carry out the functions in different ways and with different emphases.

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

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

MEMBERSHIP ON COUNCIL OF ACER

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

Office-bearers

Patrons: Professor C. R. McRae, Dr. G. E. Phillips, Mr. H. J. Meldrum

President: Mr. R. W. Stanhope

Vice-Presidents: Dr. V. J. Couch, Dr. T. W. G. Miller, Mr. M. E. Thomas

Secretary: Mr. J. C. Nield

Treasurer: Mr. K. V. Matthews

Librarian-Research Officer: Dr. M. R. Dunstan

Associate Editor for New South Wales of *Australian Journal of Education*: Dr. R. L. Debus (on leave for part of year)

Additional Committee Members: Dr. H. Campbell, Mr. M. E. Thomas

Representative on ACER: Mr. A. H. Webster (for an extra period of nine months), Prof. D. Spearritt (from June)

Meetings

Five meetings were held during the year. The speakers and their topics were:

Aug. 1964: Dr. T. W. G. Miller, *The Educational and Political Scene in S.E. Asia*

Nov. 1964: Dr. H. S. Wyndham, *The New Secondary Education —The First Three Years*

March 1965: Sir James Pitman, *Research and the Initial Teaching Alphabet*

June 1965: Five Members, *A Review of the Institute's Submissions, the Recommendations of the Martin Report, and the Government's Proposals in Four Areas*

July 1965: Prof. J. F. Cramer, *A Comparative Study of School Systems* (in collaboration with the Australian College of Education)

Membership

At the end of the Institute's year, there were eighty-one metropolitan and thirteen country members.

The Martin Report and the Federal Government's Proposals

The Institute has made representations to the Minister (Senator Gorton) and to the Government of NSW on needs in tertiary education, following the meeting of June 1965.

Members' Achievements

It is perhaps invidious to discriminate amongst members to whom honours and promotion have been accorded during the last year, but it seems appropriate to note that Dr. H. S. Wyndham was awarded the first Encyclopedia Britannica Award in Education and that Dr. S. W. Cohen has been appointed Deputy Vice-Chancellor of the new Macquarie University at Ryde.

Research Policy

The Research Officer (Dr. M. R. Dunstan) has made suggestions for the encouragement of a more comprehensive and coherent programme of educational research through the Institute.

VICTORIA

Office-bearers

President: Dr. L. W. Shears

Immediate Past President: Dr. T. H. Coates

Vice-Presidents: Mr. W. C. Watson, Mr. G. D. Bradshaw

Honorary Secretary: Mr. L. M. Bell

Honorary Treasurer: Mr. G. J. Allen

Delegate to ACER and Assistant Honorary Secretary: Mr. W. M. McKinty

Executive Members: Mrs. B. Falk, Miss A. H. Cranley, Messrs. C. W. Dawson, L. L. Foster, A. H. Fry, H. T. Message, Dr. R. Rowlands

Assistant Editor, *Australian Journal of Education*: Dr. L. W. Shears

Membership

At the end of 1964, there were 458 members, an increase of 111 over that at a similar time in 1963.

General Meetings

August 1964: Professor R. N. Spann on *Administrative Aspects of the Control of Education* (Eighth Theodore Fink Memorial Seminar on Australian Education, in association with University Extension Committee and the School of Education of the University of Melbourne).

November 1964: Mr. S. S. Dunn on *The Commonwealth Secondary Scholarship Examination in Victoria*.

March 1965: Annual meeting and address by Mr. D. Fraser on *A Sociological Approach to Education*.

- April 1965: The John Smyth Memorial Lecture: Professor C. D. Hardie on *Research and Progress in Education*.
- June 1965: The Twelfth Frank Tate Memorial Lecture: Mr. G. W. McMeekin on *The Problems of Education in Emergent New Guinea*.
- June 29th and 30th 1965: The Ninth Theodore Fink Memorial Seminar: *Modern Philosophies of Education*—Professor A. Boyce Gibson, Professor J. A. Passmore.
- August 1965: Mr. G. D. Bradshaw on *Ability and the Secondary Teacher*.

G. S. Browne Prize

The G. S. Browne Prize for educational practice was awarded to Mr. J. F. Izard for a report on *Experience and Experiment in Science*. The prize for research was not awarded this year.

VIER Bulletin

Bulletin No. 11 was issued in November 1964 and No. 12 in June 1965, both under the editorship of Mr. H. P. Schoenheimer.

Groups of the Institute

The Institute has groups concerned with Primary Education Today, Secondary Education Today, and Research. During the year a group of members was formed at Colac.

The Primary Education Today group conducted a well attended lecture series on the New Mathematics Programme in Primary School, the speakers being Mr. R. Cowban, Mr. L. Blazely, Miss G. Neyland and Mr. N. Brain, visited a television station to preview two telecast films on primary school subjects, and was addressed by Mr. B. Croskell on the topic *Impressions of the Trend of Art and Craft Teaching in Victorian Schools*.

A survey is being undertaken of current practices in testing in English.

The Colac Group has had several addresses and arranged several workshops in Cuisenaire mathematics, reading, and arts and crafts.

The Research Group continued its investigations of the problems of teacher selection, dealing with the questions of tests and measurement, the reports of headmasters, and the results of interview. A collation of the work is under review. Dr. D. Cohen presented in July 1965 a paper on research into science education.

The Secondary Group has temporarily disbanded.

Office-bearers

Patron: The Hon. the Minister for Education

President: Professor G. W. Bassett

Vice-Presidents: Dr. J. C. Greenhalgh, Mr. W. J. Brown, Dr. W. J. Campbell

Executive: Sister Mary Teresina, Mrs. J. A. Keats, Dr. R. D. Goodman, Mr. G. F. Berkeley, Mr. R. P. Tisher, Mr. D. G. Tweedy, Mr. G. Ward

Hon. Secretary: Mr. N. R. Anderson

Hon. Treasurer: Mr. N. D. Alford

Representative to ACER (until 1965): Mr. W. Wood

Associate Editor for Queensland, *Australian Journal of Education*: Dr. S. A. Rayner

Hon. Auditor: Mr. C. J. Connell

Mrs. Keats resigned from the executive in March following Dr. Keats's appointment to the University of Newcastle and Mr. Ward submitted his resignation in June. Both resignations were accepted with regret.

Membership

The following table shows the state of membership at 31.5.65 and the movement of members during the year.

Active Members:

Total at 31.5.64		135	
New members joined		16	
Former members resumed membership		18	
Transferred from associate status		1	
			170
Resigned or left the state	6		
Did not continue membership in 1965	22		
Transferred to associate status	2	30	
			140

Total active membership at 31.5.65

140

Associate Members:

Total at 31.5.65		14	
Transferred from active status		2	
			16
Transferred to active status	1		
Did not continue membership in 1965	5	6	
			10

Total associate membership at 31.5.65

10

Meetings

During the year the following meetings were held: six general, including the annual meeting; seven executive; four sub-committee.

Proceedings at the general meetings are summarized below; the figures in brackets indicate the attendance of members and visitors in that order.

June 1964 (Annual Meeting): Symposium—*The Place of English in a Developing Country*, by Messrs. A. A. Krebs, H. O. Cheah, R. Dairianathan, and Ahmad bin Taib (27: 10).

July 1964: Description and demonstration of the All Hallows' Language Laboratory by Sister Mary Claver, Head of the Language Department of All Hallows' School (44: 17).

October 1964: Address by Mr. G. T. Roscoe, former Director of Education in the Territory of Papua-New Guinea, on the Currie Report on higher education in the Territory (18:4).

March 1965: Address by Mr. Maurice Hearley, H. M. Staff Inspector, Yorkshire: *Recent Developments in English Education*—(a) *the General Scene*; (b) *the Teaching of Mathematics* (47: 18).

April 1965: Symposium on aspects of the Martin Report, by Professor Bassett, Professor J. Mahoney, Dr. R. D. Goodman, and Messrs. L. G. Grulke, J. Lawry, and S. D'Usro (33: 9).

June 1965: Research report by Mr. R. S. Adam: *Analysing Classroom Behaviour* (50: 17).

All meetings were marked by lively discussion in which members and visitors participated.

The Martin Report

Following the symposium at the very vigorous meeting of 12th April mentioned above, several resolutions were passed. As a result of these, telegrams were sent to the Rt. Hon. the Prime Minister and all Queensland members of the House of Representatives expressing the deep concern of the Institute at the federal government's decision not to make funds available for the development of teacher training. The telegram to the Prime Minister was supported by a letter from the President. Executive has still to consider a further resolution proposing an approach by the Institute to the state government on improvements to the teacher training situation.

Public Lecture Series, 1964

The lecture series for 1964 was held over four nights at Kelvin Grove Teachers' College under the general title of 'Science for the

Schools of Today'. To discuss the topic the Institute brought to Brisbane two outstanding speakers in Dr. G. R. Meyer of the University of Sydney and Mr. Mark Bishop of Cranbrook School, and to conclude the proceedings invited a panel of local science teachers to discuss with the visitors unresolved issues. Members who attended the series felt that the selection of speakers had been most suitable, as all lectures were marked by excellent matter and outstanding presentation. A report of main points taken from the speakers' addresses was published in the *Queensland Teachers' Journal*.

Lecture Series, 1965

For the 1965 series, executive has decided to return to the very live issue of the teaching of mathematics in primary schools. As is generally known, a new primary syllabus is at present being prepared, and similar moves have been or are being made in other states. It is felt therefore that teachers would welcome a further opportunity to discuss recent developments in the field, and possibilities are being considered of conducting workshops and of publicizing recent research during the series.

Australian Journal of Education

The Institute continues to act as agent for the ACER in encouraging subscription to the *Journal*. So far this year thirty-seven members have subscribed through the Institute, the same number as last year. This number does not include those members of the Institute who are also members of the Australian College of Education and receive their journals through the College.

Library

The library is situated at present at Kedron Park Teachers' College in the care of the secretary, who is also the librarian. Members continue to make some use of the library, mainly in pursuit of university studies. The library receives copies of all ACER publications, Commonwealth Office of Education reports, Research and Guidance bulletins, and UNESCO Educational Abstracts and Documents. Recently six copies of the Martin Report were purchased for the use of members.

Members may borrow books an application to the secretary.

Research Functions of the Institute

During 1965, the executive considered the functions of the Institute with a view to increasing the attention given to research, both at meetings and by other means, as laid down in the constitution.

It was decided to increase attention to research at meetings by arranging for the presentation at reasonably frequent intervals of research reports. This, as can be seen in the report of meetings held, has begun.

Three other possible functions were considered:

- (a) the publication of research reports. A beginning has been made here by preparing articles for the *Queensland Teachers' Journal*.
- (b) the renewal of research projects conducted by the Institute.
- (c) the establishment within the Institute of a research guidance service to help possible research workers to direct their efforts more effectively by supplementing where necessary the services provided by the state department of education, the university, and the ACER.

Further consideration of these functions has been referred to the incoming executive.

SOUTH AUSTRALIA

Office-bearers

Patron: The Director of Education, Mr. E. Mander Jones

President: Mr. K. L. Berndt

Vice-Presidents: Mr. E. D. Lasscock, Mr. B. R. Bunney

Executive Committee: Miss M. L. Bearlin, Mr. P. N. Chopra,

Dr. E. Roe, Mr. C. Rooney

Hon. Secretary: Mr. W. G. Boehm

Hon. Treasurer: Mr. W. L. Manser

Representative on Council, ACER: Mr. K. L. Berndt

Assistant Editor, *Australian Journal of Education*: Dr. E. Roe

Hon. Auditor: Mr. N. W. Edwards

Membership

The present membership is 120, drawn from the following sources in the approximate proportions shown:

Departmental Schools	33%
Teachers' Colleges	26%
Education Administration	24%
Independent Schools	9%
University and Psychology Branch	6%
Others	2%

Meetings

During this period five general meetings, including the annual meeting, and four executive committee meetings were held.

Proceedings at the general meetings are summarized below, with approximate attendances shown in brackets.

September 1964: Dr. W. C. Radford, Director of the ACER, and Professor E. A. Russell, University of Adelaide, surveyed the educational and economic conditions existing in Northern Rhodesia during their 1963 visit as part of a UNESCO team. By comparison, some light was thus shed on our Australian problems. (30)

October 1964: Miss A. A. Hosticka of Antioch College, Ohio, spoke on the Madison Project in Mathematics, and two films were shown on classroom work. She also discussed some aspects of teacher training in the USA. (35)

March 1965: Annual general meeting and election of officers. Mr. D. Toomey, University Department of Education, gave an interim survey of the investigation he is making of the way in which parents and students in Adelaide choose their departmental secondary school. (35)

April 1965: Mr. A. W. Jones, Superintendent of Recruitment and Training, described *Procedures and Problems in Teacher Selection*. Short commentaries and additional viewpoints were given by Messrs. E. N. Pfitzner and B. A. Cosgrove. (40)

June 1965: Members heard two papers on aspects of *Street Work among Adolescents in Adelaide*. Speakers were Mr. G. Killington (Service to Youth Council) and Mr. M. Oswald (Children's Welfare Department). (25)

At all meetings useful and interesting discussion has followed the addresses, with many members contributing.

During the period under review, the SA Institute executive committee has striven to secure speakers who could describe new work in various educational areas and in such a way that our members would be able to see its relation to their work in the schools. Attendances have occasionally been lower than we would wish, but those present have often mentioned their satisfaction with the material provided.

Office-bearers

Patron: Dr. T. L. Robertson

President: Mr. N. G. Traylen

Vice-President: Dr. R. Adam

Hon. Secretary/Treasurer: Mr. J. Liddelow

Additional Committee Members: Dr. D. Mossenson, Mr. R. Peter,
Fr. J. Nestor

Hon. Auditor: Mr. C. Cook

Representative on ACER: Mr. N. G. Traylen

Membership

The current membership of the Institute is seventy-three including three members on leave overseas. Two members have resigned and three new members have been elected to the Institute.

General Meetings

The annual general meeting and nine general meetings were held during the year. The speakers and their topics were:

July 1964: Dr. D. K. Wheeler, Senior Lecturer in Education at the University of W.A., *Education in the Arab World*.

August, 1964: Mr. V. Horner, Senior Lecturer in Education at the Claremont Teachers' College, *Some Aspects of Education in Malaya*.

September 1964: Professor M. Webb, Professor of Geography at the University of W.A., *Education in University Perspective*.

October 1964: Dr. W. Neal, Director of Special Services, Education Department, W.A., *Educational Research in Canada with Particular Reference to Research in Educational Administration*.

November 1964: A symposium of speakers consisting of the teaching staff of the Faculty of Education at the University of WA presented a review of research in education currently in progress within the faculty. Professor C. Sanders introduced the session with a brief outline of the organization of research in the faculty in the last decade.

February 1965: Dr. T. L. Robertson, Director-General of Education in Western Australia: Dr. Robertson had attended a meeting in Ottawa on the Commonwealth Scheme for Cooperation in Education, and the UNESCO conference on education in Paris. His topic was *Some Observations from Abroad*.

March 1965: Mr. M. Clark, Officer-in-Charge of the Educational Services Department of the ACER, *Current Projects of the ACER*.

April 1965: Dr. D. Jecks, Senior Lecturer in Teaching Practice, Claremont Teachers' College, *Columbia Teachers' College and the Catskill Area Project in Small School Design*.

June 1965: Mr. P. Tannock, Education Department, W.A., *A History of Catholic Education in Western Australia*. This meeting was attended by a large number of visitors from the Catholic Teaching Orders in the metropolitan area.

Meetings have been well attended during the period under review and all have been held at the Claremont Teachers' College.

Executive Meetings

The executive committee held meetings on two occasions.

The R. G. Cameron Prize, 1964

The R. G. Cameron Prize, sponsored by the Institute, was awarded to Mr. Ian Fraser for a study entitled *An Investigation of the Academic Progress of Asian Commerce Students Entering the Perth Technical College in 1960 with Reference to Factors Associated with Success*.

TASMANIA

Office-bearers

Patron: The Honourable the Minister for Education, Mr. W. A. Neilson, M.H.A.

President: Mr. P. W. Hughes, B.Sc., B.Sc. Research (Oxon), Dip.Ed.

Vice-Presidents: Messrs. V. R. Long, B.A., A.I.E. (Lond.) and A. V. Gough, B.A., B.Ed. (Melb.)

Representative on ACER: Mr. R. W. McCulloch, B.A., B.Ed., A.B.Ps.S.

Hon. Secretary: Mr. H. L. Dodson, B.A., Dip.Ed.

Hon. Treasurer: Mr. J. H. Morgan, B.A.

Hon. Auditor: Mr. J. Besier

Committee: Messrs. R. G. Brett, B.Sc.; R. W. McCulloch, B.A., B.Ed., A.B.Ps.S.; Gollan Lewis, M.A. (Oxon), Dip.Ed. (Lond.); M. L. Webberley, B.A., and F. R. Chappell, M.A., Dip.Ed.

Membership

At the end of the year there were eighty-four members.

General Meetings

The Institute holds meetings in three centres: Hobart, Launceston and Burnie. The representatives and conveners of meetings have been Mr. E. G. Morse, B.A., in Burnie and Mr. H. S. Payne, B.A., L.R.A.M., in Launceston.

July 9th, 1964, Hobart: Mr. H. L. Dodson, *Limited Specialization in the Primary School*

July 10th, 1964 (with NEF), Launceston: Prof. Walter A. Yuhl, *The American Political Scene in the Presidential Year*

July 30th, 1964, Hobart: Miss M. J. Roberts, *Some Factors in the Development of Moral Concepts in Young Children*

August 1964, Launceston: Mr. G. Foster, *Television and Teaching*

September 1964, Hobart: Mr. W. Wood, *Some Research Findings in the Attainments, Abilities, Needs and Aspirations of Senior Secondary Students*

October 1964, Hobart: Mr. W. H. Perkins, *A Report on the Teaching of Film and Television Appreciation in Tasmanian Schools*

December 1964, Hobart: Dr. W. C. Radford, *Mother Tongue and Mother Wit: Some Thoughts on the Relationship of Language to Mental Development*

March 1965, Launceston: Debate by Students, *Film: The Nature of Human Learning*

April 1965 (with ACE and NEF), Hobart: Sir James Pitman, *The Initial Teaching Alphabet*

May 1965, Hobart: Mr. N. J. Holland, *Group Teaching: Some Practical and Theoretical Advantages and Limitations*

June 1965 (with NEF and ACE), Launceston: Mr. S. Tembo and Mr. J. R. L. Honde, *Education in Zambia and Malawi*

Executive Meetings

The executive held meetings on three occasions.

Prizes Sponsored by TIER

This year for the first time the H. T. Parker Prize was awarded. The winner, the best student at the Hobart Teachers' College, was Miss Patricia Anne Wilson.

The G. V. Brooks Prize, for the best student at the Launceston Teachers' College, was won by Miss Colleen Burt.

The Annual Institute Address

This year a well attended meeting was addressed by Dr. W. C. Radford, Director, Australian Council for Educational Research. At the conclusion of the meeting, members and their guests assembled for a buffet dinner in the Union Building at the University and the Senior Staff Common Room.

Dr. Radford's address was published in *Tasmanian Education*, Vol. 17, No. 1, 1965.

Interstate Conference of Research Officers

As this conference was held in Hobart in September 1964, the Institute was able to arrange a meeting at which it was pleased to welcome members of the conference and to which Mr. W. Wood, Director of Special Education Services, Queensland, gave an address.

Theme for Addresses 1965

The theme 'Methods of Individualizing Instruction' has been chosen for the calendar year 1965 and a series of talks on experience and experimentation in individualizing instruction has been arranged.