

ANU Reporter

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Council calls for report on high student failure rate in Economics

Last year, 47 per cent of Economics I students failed. This higher-than-ever figure in what is acknowledged to be a tough course has prompted the ANU Council to invite the Faculty head to report on the reasons why and the impact on students affected.

In a preliminary report to Council on 12 March, the Dean of Economics, Professor Allan Barton, gave two explanations: shortage of full-time staff to conduct tutorials and laxity of students in preparing weekly tutorial assignments.

Last year was the second year in which failure rates had, according to Professor Barton, risen to 'unacceptably high levels'.

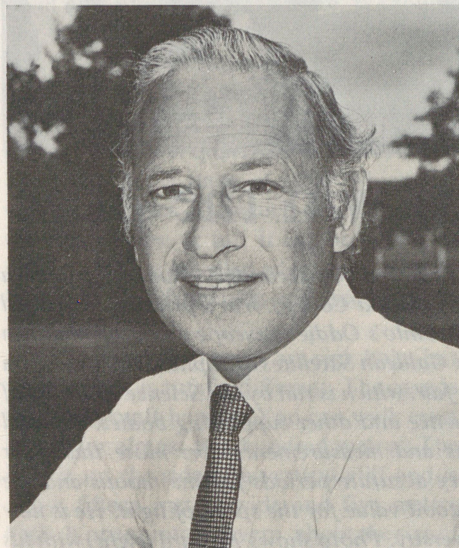
Failure rates in Economics have, in general, been comparatively high in relation to other courses at the University. In 1979, following a not-unusual failure rate of 32 per cent, an Economics Departmental Review Committee looked closely at the course to find the answers.

Although it found too much reliance had been placed on part-time tutors, chronic staff shortages due to resignations and time-lapse in recruiting and replacing staff, particularly full-time tutors, continued to dog the Faculty in 1980. The committee found no fault with the presentation of the course.

A statistical analysis of the 1981 results showed that 452 students enrolled, 130 withdrew or dropped out during the year and of the remaining 322 who took the final exam, 169 passed.

The analysis showed also that overseas students did better than local students, mature part-time students did better than school leavers, and students with inadequate mathematical backgrounds performed poorly.

Economics I uses very little mathematics but students lacking the ability to handle mathematics have difficulty in absorbing the abstract logic used in the course.



Professor Barton

The course has remained substantially the same since 1976 and covers three main topic areas: microeconomics, macroeconomics and international economics.

It is a principles course with a strong analytical emphasis and is similar in content to most first-year university economics courses. Assessment is spread over a range of term and semester exams and essays. 'Copious' lecture guides are distributed and the lecturer provides an additional two-hour revision class each week for students having problems.

The examination papers comprise essay questions and short answer questions with students invariably getting either 0 or 4 on the short questions according to whether they see the fundamental point.

Marks in the 1981 exams were clustered in the 40-50 decile. Although a much larger proportion of the class could have passed by lowering the pass mark by a few points the examiners were reluctant to do so because they considered these marginal students would be unlikely to pass Economics II.

Professor Barton said that although some of the part-time tutors were 'very good indeed' problems with others included unfamiliarity with the course, not always being available for student consultation, inadequate preparation for class and a failure to pursue lax students.

'As a result of the turnover of tutors some classes had several tutors over the course and students lost a continuity of contact with their tutors. This in turn accentuated the laxity of students in preparing assignments,' he said.

'The second reason for the poor performance of the class was that many students failed to complete their weekly tutorial assignments. In a course such as economics, it is imperative the assignments are done each week because they are all components of an integrated model. Once a student falls behind he soon loses grasp of the course and it takes a substantial effort to catch up again.'

Professor Barton believes some students enrol in Economics because of the generally good employment prospects. Some of these are not up to the course. However he said that if entrance was based on proven mathematical ability it could cut intake substantially and would exclude those students who were the exception to the rule.

The difficulties experienced in 1980 and 1981 are not expected to occur this year. Three new tutors have recently been appointed and are taking the major share of tutorials.

Tutorials will also be taken by recently appointed lecturers. Preparation of tutorial assignments will be required and tutorial performance will be more closely monitored. Professor Barton expects that these measures should improve the pass rate considerably. **DEBATE: PAGE 2.**



Harry Butler? Not quite, but Peter Griffith, a general staff member of the Department of Forestry, kept some people guessing when he paraded through Canberra streets recently as part of the Canberra Day Twilight Procession. Another picture: Page 6.

Salary increases

Agreement has been reached between the University and a number of associations and unions on increased salary rates. The increases, which are subject to the approval of the Conciliation and Arbitration Commission, will be effective from the dates shown but actual dates of payment cannot be given at this stage.

Staff covered by the Association of Draughting, Supervisory and Technical Employees—ANU Technical Staff (Specific Conditions and Salaries) Award 1980 will have salaries increased by 9 per cent from the first full pay period on or after 10 February 1982.

Staff covered by the Federated Miscellaneous Workers Union of Australia—ANU Cleaners, Watchmen, etc (Specific Conditions and Salaries) Award 1980 will have salaries increased by 5.8 per cent from the first full pay period on or after 24 February 1982.

Certain categories of staff covered by the Australian National University Gardeners, Groundsmen, etc (Specific Conditions and Salaries) Award 1980 will have salaries increased by approximately 9-10 per cent from the first full pay period on or after 2 March 1982.

Staff covered by the Australian National University Staff (Specific Conditions and Salaries) Award 1981 will have salaries increased by approximately 5.8 per cent to 13 per cent from the first full pay period on or after 10 March 1982.

A claim for increased salaries by the Administrative and Allied Officers Association was dismissed by Commissioner Barnes in June 1981. A subsequent appeal by AAOA to a Full Bench of the Commission was unsuccessful. A further claim by the AAOA was the subject of a preliminary hearing before Commissioner Barnes on 5 February 1982.

Subsequent discussion between the Association and University representatives failed to reach agreement and the dispute will be heard in the Commission on 6, 7 and 8 April.

Elizabeth Hayden

Economics debate: television treatment shares the blame

The failure rate in Economics is provoking a good deal of debate on campus.

A defender of maintaining academic standards despite the poor showing of the Economics class of '81, the Dean of Science and member of Council, Professor Eric Bachelard, believes that the Economics I failure rate is indicative of a far wider and more complex problem affecting all areas of teaching in the University where quantitative and analytical skills are needed.

'What we are seeing,' he says, 'is not a less capable student population but a different one—different to that of, say, five or 10 years ago.'

'While the best students are as good as they have ever been, an increasing number of them appear to be performing badly because they seem to have difficulty in addressing themselves to the question. For instance, one sees that in Economics they pass with full marks or obtain zero on short answer questions, according to whether they understand the question or not.'

'This difficulty in answering quantitative questions is common elsewhere and has been noticeable over the past five years even in my own area of Forestry. With more general questions, students often do not answer the question asked but take off on a tangent and simply write around the subject.'

'If we are to continue to deal effectively with students, it will be necessary to face the fact that we must adapt to a changing student population.'

Professor Bachelard believes possible explanations of the situation might include attitudes which diminish respect for knowledge and a greater questioning of elitism.

'Nowadays, everyone feels they have a right to be heard—to stand up and spout about anything they feel like. This has led to a questioning of the value of education and a general air around of because you feel something, you know it,' he said.

'I wonder if students come to universities any more to get educated and to take pride in the knowledge so gained. The relatively poor attendance at tutorials and a laxity of handing in assignments noted in Economics is common elsewhere. There is a marked difference in the success of those who DO attend tutorials and DO complete their assignments on time and those who don't.'

'Everywhere there appears to be a rather frightening drop in enrolments and/or success rates in the more rigorous subjects. A recent study among Year 11 and 12 students in Victoria illustrated this. The problems are not ours alone.'

Professor Bachelard quotes from a 1981 submission to the Review Committee on the teaching of Physics at the University. In a section headed 'Undergraduate Teaching. Preparation for University Study', the Department of Physics referred to 'a perceived decline in the level of preparedness among high school students for the study of physics at tertiary level' and commented that this impression has also been noted by the Mathematics Review Committee. The report continues:

'There is a widespread feeling among the academic staff that the standards set for students have undergone a slow but significant



Professor Bachelard

decline in recent years. This is apparent for example in the scope of the material covered in courses, which has narrowed somewhat (particularly in first year), and in comparison of current examination papers with those of about eight to 10 years ago.'

Professor Bachelard says that he is not as hard now on students as he would have been two years ago.

'They want to learn. They want to do well. But there is an attitude which is not giving them the same approach as they once had.'

'It may sound far-fetched and speculative but I think that the superficial pap in television coverage of news and current affairs has had its impact on the way people think and react to learning. The programs purport to be serious but in fact they show only the sensation without explaining any of the underlying problems which have brought a situation about. People accept the superficial because they have little opportunity to know any more. It is the here-and-now that matters, not the reasons why.'

In the Sciences, at least, Professor Bachelard hopes this year the Department will set up systems whereby the progress of students can be monitored better and through this the students can be 'got to the point where we want to get them'.

ECONOMICS I FAILURE RATES IN OTHER UNIVERSITIES IN 1979

University	Failure Rates (% of those who sat final exam)
Flinders	38%
Newcastle	29%–35% (range over several years; average of 31%)
Adelaide	30%
Monash	30% (less 3% for those subsequently passing a post exam—February 1980)
Macquarie	27% Semester 1 15% Semester 2 (Students are not allowed to proceed to Semester 2 if they fail Semester 1.)
New England	25%
Sydney	22%
Melbourne	20%
New South Wales	21% Micro. Semester 1 12% Macro. Semester 1 17% Micro. Semester 2 18% Macro. Semester 2 (Both courses are repeated in Semester 2)
Queensland	15% Micro. 15% Macro.

Some reflections on the maturity of students

Have you heard that students at Wollongong University are more precocious than those at ANU?

The explanation is simple: at Wollongong students mature at 21, at ANU they mature at 25.

But is mature-age the right term for 39 per cent of ANU students—students who range from 25 to 71, whose situations range from being single to having grandchildren old enough to study with them?

Is a student of 25 necessarily mature? This problem of nomenclature was discussed during an Orientation program for mature-age entrants, arranged by Mr Geoffrey Mortimore, of the Counselling Centre. A competition for a more lyrical/descriptive/evocative

title resulted in the following gems:

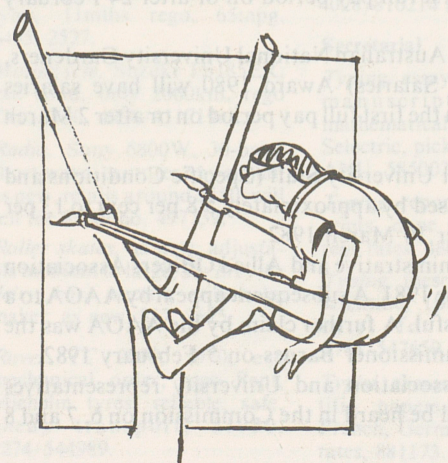
- Golden Oldies
- Rusties (Returning university students trying to investigate education and self)
- SLUGS (Students Learning Under Great Stress)
- LLL (Late Learners League). The League's motto is 'The survival of the persistent'.
- Stewed Students
- Old-enough-to-know-better-age students
- Crumbles
- Organisation for Older People Starting Uni (OOPS Uni)
- Late Achievers' Group (LAG)

One entry, which refers perhaps to the number of academic and general staff enrolled this year is Older Academics Furthering Studies (OAFS).

An entry by a group of fine arts students—Delayed Action Group (DAG) was awarded a prize of a bottle of fine wine.

Maybe mature-age students are like good red wine—the older the better.

Mr Eric Spark, a mature-age, part-time student who works at the Australian Information Service, demonstrated this point last year when he gained First Class Honours in History, the University Medal and the David Campbell Prize for writing Australian history as a brand of literature.



Meg Williams

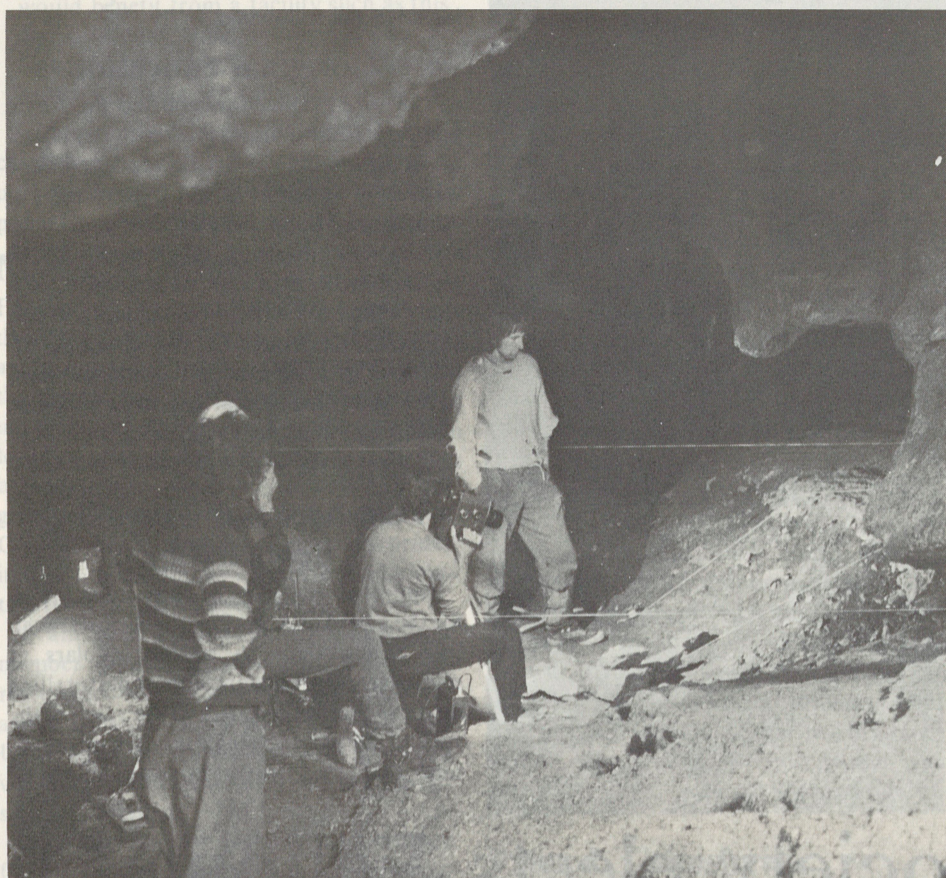


Mt Stromlo helps win the prize

The Mt Stromlo Observatory's educational program for secondary students helped a Canberra student, Richard Watts, formerly of Copland College, win a prize in the annual Science Fair late last year. Richard used Mt Stromlo's Oddie telescope and a smaller 8cm telescope at his home for an indepth study of the Galilean Satellites of Jupiter. The work won first prize in the scientific inquiry section of the fair, which is run by the Science Teachers of the ACT with help from the Academy of Science and other supporting bodies. Richard collected data, including nightly observations and measurements over more than four months, to calculate, among other things, very accurate periods for the moons and the diameter of Jupiter. He also obtained a very good value for the speed of light. He is now studying Chemical Engineering at Sydney University. Photo shows Richard (right) with his father Mr Watts and the Science Master at Copland College (left).

The Franklin River Caves: a recapturing of mankind's past

Dr Rhys Jones, Prehistory, Research School of Pacific Studies, returned from South-West Tasmania last week to give evidence before a Senate Select Committee. He testified that with Don Ranson, former ANU PhD scholar, and others, he had discovered eight more caves in the Franklin River area, and suggested that the most recently discovered cave could be the oldest. In this article Dr Rhys Jones tells the story of the discovery of Fraser Cave and comments on its historical significance.



This picture, taken by Dr Jones, shows the inside of Fraser Cave before excavations began.

'We tried to find the depth of deposit in the cave to get some idea of the content. We laid out a little square and began to excavate and found one of the richest sites in Australia. To give you some idea of the richness, we placed earth into a sieve and washed the sieve in the Franklin River, and just one sieve would have something like one or two thousand flakes—sharp, shiny little flakes—and between a hundred and three hundred bones of animals the people had hunted. I estimate that the whole site could have ten million artefacts in it and that makes it one of the richest sites ever found in Australia.

'It was probably a base camp in which between thirty and fifty people camped a few weeks a year. When they camped on the floor the flakes got covered by dirt and clay. When others came to the place they had to make them again. You get a build-up of deposits through the thousands of years.

'When we excavated, we found on the top a whole series of hearths, where people had been camping. These were charcoal hearths, very rich, with lens-like pieces of black charcoal and underneath, burnt earth.

'Now underneath these hearths, we found something most interesting and exciting—a series of deposits of limestone. These fragments had fallen from the roof, and we believe, under different climatic conditions than at present.

Radio carbon dates have shown that this rubble was formed between 15 and 20,000 years ago, that is during the height of the last Ice Age.

'During the Ice Age this country was different: in the immediate area of this cave there were glaciers in the high mountain val-

leys all around and instead of having trees everywhere, you had open country, like the tundra of northern Russia, Alaska or northern Canada. In such tundra conditions, it is cold and dry, though with the glaciers up above. The only trees would have been a gallery of rain forest just on the side of the rivers, where they were sheltered and irrigated by the water.

'The thing I find interesting is the animal bones. Almost nowhere in Australia do you get a very good picture of what the hunting strategy was like in the time we are talking about, more than ten thousand years ago. In most caves we can find owl pellets or the bones of Tasmanian Devils. But we do not find the prey of humans. Now in this site we have got the prey of humans. The bones suggest that what the people were doing was hunting one or two species only. It was an extremely narrow targetting strategy. They were eating several sorts of wallaby, mostly red-necked wallabies, and some wombats, and that's about all. What we have are jaw-bones—upper and lower jaw-bones—and the long bones of the leg, leg-bones of wallabies. These have all been smashed in half or in bits; you can see the smash marks where the bones have been put between two stones to get to the marrow. A large proportion of the bones has been charred, forming a bone charcoal. There is no way you could have that combination—of broken bones of only certain body parts with quite a large percentage charred: these are the remains of human middens. These middens are going to give us a tremendously interesting picture—almost a unique one—of the hunting way of life of the people in this area, perhaps during the

Ice Age.

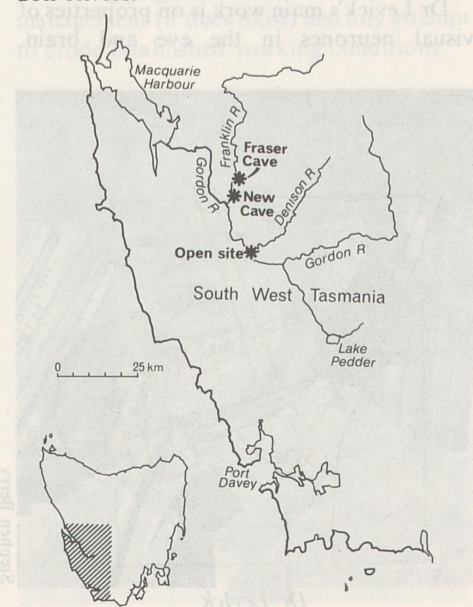
'What interests me about these south-western sites is that here you have an extreme climatic place. Think of the great adventure of man coming out of Asia, early man from Java or South China, managing to cross the great water barriers between Asia and Australia, getting to the great tropical areas of New Guinea and northern Australia, then eventually colonising the continent, and coming to south-eastern Australia. Eventually the great route to Tasmania opens and they take it. Somehow here they are, having gone from the tropics down through the deserts and into the high latitudes, and suddenly here is the extreme colonisation. Here are people, moving inexorably, impelled into empty space. Here they find themselves in full Arctic conditions. No other people out of Asia, if Aborigines are that, experienced the southern ice sheets. This is the one place in the southern hemisphere where human beings lived on the edge of the great ice sheet. Recent research on deep sea cores suggests that about eighteen thousand years ago the full unbroken ice sheet was as close to southern Tasmania as Canberra is: the ice sheet was about a thousand kilometres to the south. You can imagine that in front of this ice sheet you have a whole sea of icebergs floating up past the Tasmanian coast.

'Here we have human beings who are experiencing the great climatic event, the only ones in the south because only Tasmania is that far south. Everywhere in the world men were hunters; there was no agriculture or industry. In the northern hemisphere you can go to the Magdalenian Caves of France, where the great cave artists were, and find evidence of cave men. The northern ice sheet was as close to them in the north as the southern ice sheet would have been to early men in Tasmania.'

Dr Jones said, 'It is interesting that Fraser Cave is similar to the caves of France: the stone tools are similar, the deposits are similar, the hearths are similar, even the hunting patterns were similar, though the animals were different of course, with northern man hunting deer and Tasmanians hunting wallabies. The tight targetting strategies are similar and the way they smashed open bones is similar. Although the sites are nearly twenty thousand kilometres apart, the fundamental thing you can say about them is how similar was the experience of their inhabitants.

'Now of course what has happened since is different. In the northern hemisphere you have agriculture developing, industry and the Industrial Revolution. In Tasmania you had isolation because as the ice melted at the end of the last Ice Age, the sea level rose, Bass Strait was formed and cut off Tasmania from the rest of the world.

'And the two paths came together again only a hundred and seventy years ago with devastating effect for the descendants of these early men from the Franklin and Gordon Rivers.'



Professor D. A. Low, as Vice-Chancellor, attended his last meeting of the Council of the Australian National University on 12 March.

In an address from the Chair, the Chancellor, Sir John Crawford, paid tribute to the work of Professor Low during his seven-year term as Vice-Chancellor which he said had covered a period of increasing restriction of funds. The Chancellor expressed his personal gratitude and admiration for Professor Low in administering and at the same time advancing the cause of research and learning in such a period of great restraint.

Council resolved to record its appreciation for the work of Professor Low.

Other matters dealt with by Council included the following:

Aboriginal education

The Vice-Chancellor reported that there had been helpful discussions with the Director of the Institute of Aboriginal Studies and with representatives of the Departments of Aboriginal Affairs, Employment and Youth Affairs, and Education, on proposals for the establishment, in a hall of residence, of a study centre for Aboriginal students. It was suggested that Council should take a particular interest in admission requirements and to recognise that special assistance would be needed by Aboriginal students if they were to achieve acceptable academic standards.

Post-bachelor Travelling Scholarships

Approval was given to amend conditions for the award of ANU Post-bachelor Travelling Scholarships to enable scholars to receive from other sources amounts totalling no more than one quarter of the value of the stipend payable to a single scholar, on condition that the University was informed.

Further funds received from outside sources must have the approval of the Postgraduate Scholarship Committee.

Board of the Faculties

Approval was given for the appointment of Professor A. Brown as a Member of the Board until 21 December 1982.

The Vice-Chancellor, Professor Low, has given his approval for a number of University members to provide assistance to Government. These arrangements, which were noted by Council, are:

National Capital Development Commission

Professor G. M. Neutze, Director of the Research School of Social Sciences, will accept an invitation from the Department of the Capital Territory to join a group which will review and report on the Commission.

Guyana

Dr R. G. Garnaut, Senior Fellow, Department of Economics, Research School of Pacific Studies, will undertake a short consultancy for the Commonwealth Secretariat's Technical Assistance Group, to draft legislation related to fiscal policy for large-scale mining for the Guyana Government.

Advanced Education

Professor R. Johnson, Head of the Department of Classics in the Faculty of Arts, will accept an invitation from the Minister of Education to serve as Chairman of the Commonwealth Institutions Accreditations Committee for Advanced Education from 1 January 1982 to 31 December 1983.

Fellowships and Grants

Professor D. P. Craig, Professor of Physical and Theoretical Chemistry, Research School of Chemistry, will accept an invitation from the Minister of Science and Technology to serve on the Queen Elizabeth II Fellowships and Australian Research Grants Committee for the period to 31 December 1984.

NH & MRC

Professor R. Porter, Director of the John Curtin School of Medical Research, will accept an invitation from the Secretary of the National Health and Medical Research Council, to serve as Chairman of the Medical Research Advisory Committee and on other NH&MRC committees for the triennium 1 January 1982 to 31 December 1984.

Building and Grounds Committee

Council adopted a recommendation that the Research Students' representative should be Mr D. Williams. He will serve for one year from 12 March 1982.

Students' Association representative

Council expressed its appreciation for the work on Council of Jeffrey Dalton, the President of the Students' Association, whose term of office expires on 23 April 1982.

Economics students' failure rate

Council expressed its profound concern at the failure rate of 47 per cent of students in Economics I in 1981. It requested the Board of The Faculties to invite the Head of the Department of Economics to present his reasons for this and the impact upon the position of students affected. The Board will report back to Council at its May meeting.



D. A. Fetherston

Book collection honours Chifley

The Leader of the Opposition, Mr Bill Hayden, this week presented the Chifley Collection to the University Library. The collection of books on Australian politics, Labor history and political economy has been donated by the ACT branch of the ALP. In 1952, the branch established the J. B. Chifley Memorial Prize for the best ACT student in the NSW Leaving Certificate in either Modern History or Economics. Because of changes in the ACT secondary school system, the ANU, as trustee of the prize, has made no award since 1976. Inflation has eroded the real value of the Commonwealth Bonds in which the capital for the prize was invested and income from the bonds was no longer enough for a worthwhile prize. So the branch cashed in the bonds to purchase the books.

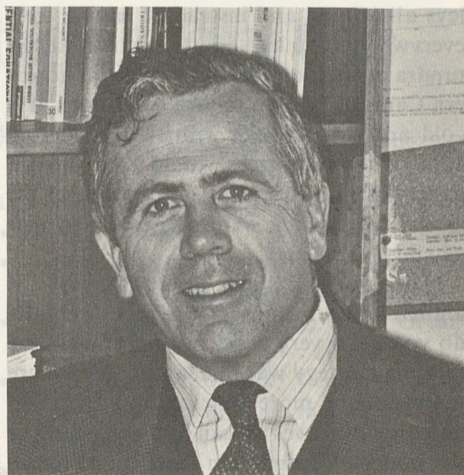
Royal Society elects Fellows

Three ANU academics are among five Australians elected Fellows of the Royal Society of London last Friday.

They are: Professor R. J. Baxter, Professor in the Department of Theoretical Physics, Research School of Physical Sciences; Dr W. R. Levick, Professorial Fellow in Physiology in the John Curtin School of Medical Research; and Professor J. S. Turner, Foundation Professor of Geophysical Fluid Dynamics in the Research School of Earth Sciences.

Professor Baxter's field of study is the way gasses, liquids and solids behave. He has been honoured for his brilliant contributions to the field of critical phenomena in the form of remarkable and exact solutions of several two-dimensional models.

Dr Levick's main work is on properties of visual neurones in the eye and brain.



Neal McCracken

Professor Baxter

Professor Turner is interested in convection and mixing in stably stratified fluids.

The other Australian Fellows are Sir Gustav Nossal of the Walter and Eliza Hall Institute in Melbourne, and Dr W. J. Peacock, chief of the division of plant industry at the CSIRO, Canberra.

The Vice-Chancellor, Professor D. A. Low, said the election of the ANU scientists was a 'remarkable distinction which testifies to the high reputation of the Australian National University'.

The newly elected Fellows join 15 other Fellows working at ANU. They are: Professors A. E. Ringwood, P. A. P. Moran, D. P. Craig, P. O. Bishop, D. R. Curtis, F. Gibson, R. Slatyer, G. A. Horridge, J. A. Pateman, B. E. S. Gunning, F. Fenner, K. Mahler, B. H. Neumann, A. J. Birch and M. J. D. White.

The ANU has more Fellows of the Royal Society than all other Australian universities

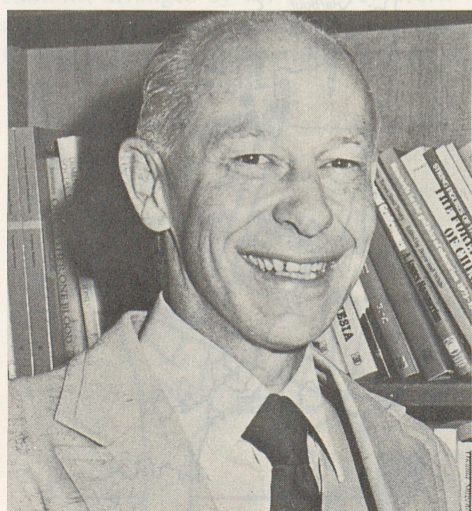
combined. Eight other Fellows have held posts at the University and have had special influence on its development.

They are: Professors J. C. Jaeger (deceased), A. G. Ogston, D. G. Catcheside, W. Hayes, Sir Mark Oliphant, Sir Richard Woolley, Sir Rutherford Robertson and Sir John Eccles.

The Royal Society dates back to the 17th century when a group of scholars regularly met together to discuss current, new and experimental philosophy.

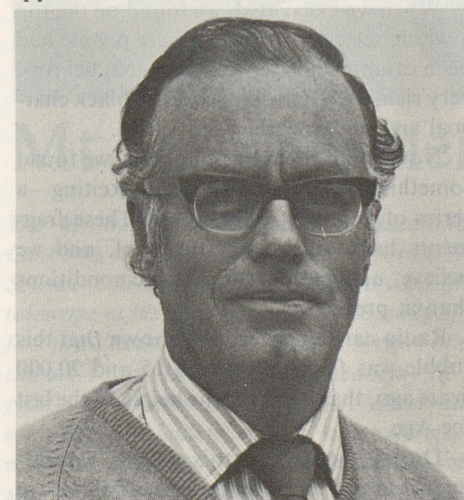
Charles II became interested in the Society and granted its first charter on 16 July 1662.

The second charter granted on 22 April 1663 included a grant of Arms and the motto of the Society 'nullius in verba'—an expression of the determination to withstand dogma and to verify all statements by an appeal to facts.



Stephen Berry

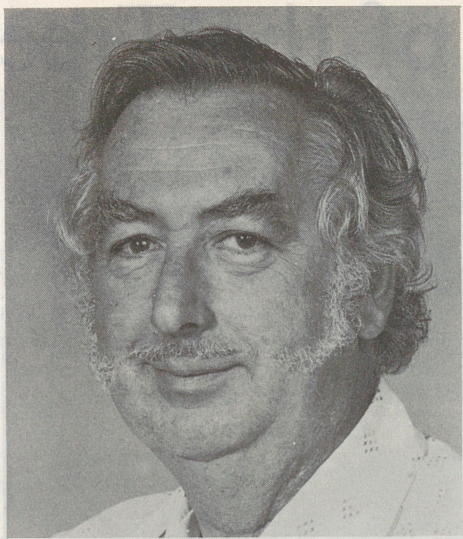
Dr Levick



Professor Turner

Council election for non-academic staff

Policy statements by candidates



A. A. Argyle

As I have been with the Australian National University for nearly 29 years in technical and administrative roles in both the Institute and The Faculties, I believe that my experience could be an advantage when confronted with present and future problems involving general staff.

Although I have sympathies with some of the objectives of the unions on campus, I am not affiliated with any of them.

If elected I will endeavour to further the standing of the general staff.



Joyce Campion

As a member of the general staff you are entitled to elect two members of the non-academic staff to represent you on the ANU Council. It is important that your choice of candidate has an understanding of your problems and needs.

My 12 years service with the ANU and my involvement over the years with the Staff Amenities and Welfare Association and more recently with the ANU branch of HAREA have enabled me to become well acquainted with the day to day problems and needs of general staff throughout the campus.

If elected to Council my priorities would be:

1. **Communication:** In the current economic climate more and more of the general staff are feeling uneasy about their position and their future within this University. It is of great importance that your fears, problems and ideas are passed on to your elected candidate. The only way to accomplish this is by communication. Just as important is the need for your representative to keep you informed on decisions made by Council that affect you, the members of staff. I am prepared to keep you informed and to be available to any staff member who may wish to discuss their problems and ideas with me.
2. **Health and safety in the work place:** Other people have talked loftily about this important topic, the results of their efforts leave a lot to be desired. It is my intention to use Council at every opportunity to promote improved health and safety conditions for all staff.

3. **Worker participation:** To stimulate the notion of co-operation and consultation between management, academic and general staff. To promote and support staff training/development programs.

4. **Sports union:** The ANU must be the only University in the southern hemisphere that does not have an indoor olympic pool and sauna complex. All general staff would benefit from a facility such as this and I would strongly recommend to Council that funds be made available to rectify this situation as soon as possible.

To make the most of the two seats allocated to general staff on Council, I would urge you to vote and not throw your ballot paper in the waste paper basket.

Margaret Evans

For the last 16 years I have been working in the University Counselling Centre where I am fortunate in having a general overview of the campus and an awareness of many existing pressures on staff. I am readily available to listen without bias to particular concerns or suggestions which any member of the general staff may wish to have discussed in Council. The Counselling Centre also prides itself on its autonomy—free from administrative or academic oversight.

I am seeking election to Council as member of two groups who are under-represented—as a general staff employee and a woman. In my participation in the University's main decision-making body I will have the interests of these two groups specially in mind.

Consideration of personal and human factors will be paramount in my contributions to decision-making. Some issues of importance which I would support are:

1. **Flexibility of employment conditions.** Both men and women should have the opportunity for flexible employment. Ways of achieving this may include part-time jobs (either part of each week or for parts of the year when demand is high), and shared positions (husband and wife



sharing a joint appointment).

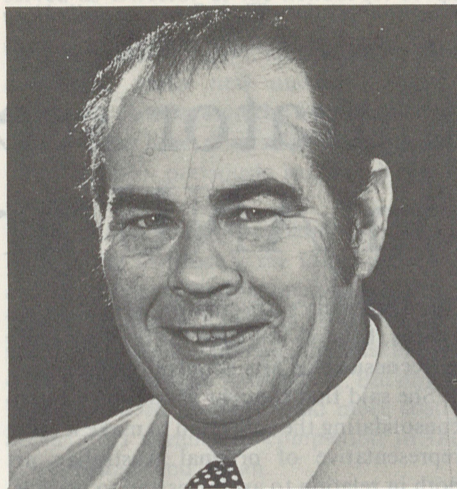
These alternatives should be available without incurring financial penalties such as ineligibility for superannuation or pension benefits. More appropriate conditions of employment may have to be devised to make such flexibility possible.

2. **Improved career prospects and career counselling with training opportunities and job transferability within the University.** I support strongly the initiatives that have already been started in general staff training schemes.
3. **Humanisation of environment.** With

increasing automation and computer infiltration it is essential that staff are kept human by frequent opportunities for social contact and by working in environmental conditions which give access to natural light, air and plants. I will support any moves which take these factors into account.

4. **The University community has a common aim: to further teaching and research.** While there are clear differences between groups (academic staff, general staff and students) a reduction in funds should not cause suffering in one section at the expense of another.

I will be concerned to speak for the rights and interests of the general staff in any matter in which they may be disadvantaged. The work and status of the general staff deserves to be recognised and treated with respect.



Peter J. Grimshaw

During the past few years Australian universities have had to accept a contraction of their annual recurrent grants. At the ANU much time and effort has been spent in attempting to offset the contraction by rationalising services to effect economies. Furthermore, to avoid stagnation, attempts are being made to introduce new research and teaching activities, even though this could be at the expense of existing academic endeavour.

The review of expenditure in the public sector has encouraged the University to also undertake systematic reviews of its administrative operations. Needless to say, the review procedures adopted by the University, aimed at rationalising services or cutting down on costs, have, invariably, involved active participation by the general staff. Comments passed, or views expressed during these review exercises, have contributed towards the insecurity and uncertainty evident amongst the general staff, and this can be gauged from the low morale so noticeable on the campus at present. Inconsistent salary policies have added further to the feeling of dissatisfaction.

Today, a campus community is no longer an enclave consisting solely of researchers, teachers and students. If the University is to perform all of the functions prescribed by its Act, the contribution the general staff make must be recognised and acknowledged, rather than be simply tolerated. Because they also have such traits as aspirations, hopes, goals and interests, the general staff are often more concerned with campus activities than is appreciated.

In seeking to be reappointed as a general staff representative on Council it will be my aim to remind Council, when this proves

necessary, that the general staff are a part of the overall team which seeks to fashion the University's future. I believe my representation in the past was effective and served the general staff's best interests. Help me to restore our effective representation on Council by giving me your vote.

Raymond Frederick Wall

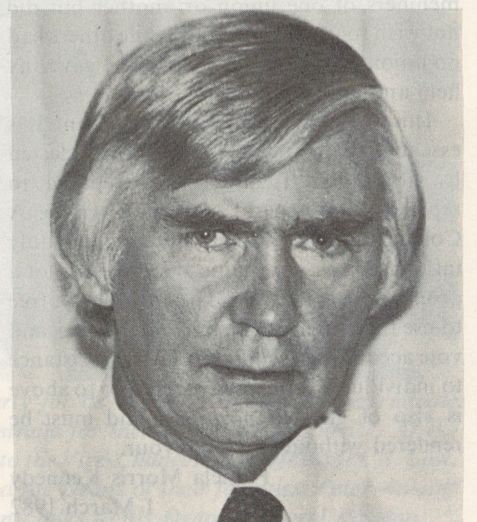
The opportunity to elect two members of the general staff to Council is again before us. In standing as a candidate, I have considered carefully what my policy would be if elected. But it is not what I want that matters, it is what you the general staff see as important to the value of working life on campus, which must always override the personal aims of the candidates.

General staff representation on Council amounts to about 4 per cent of total Council membership. Some might see this as token representation only and as such hardly worth worrying about. I do not share that view, as any single Council member has the right to raise a matter of concern or interest and to ask questions and seek information from the executive staff who support Council. This gives a direct channel of communication from general staff to the policy making areas, which it would not otherwise have. In reverse, if the representatives are doing their jobs properly, a similar channel exists, which is of value, both to the University and the general staff. Importantly, the two general staff seats provide the means of employee-participation in the formulation of Council decisions.

It is essential, therefore, that persons with experience and dedication are elected. Many problems affecting staff are of an industrial nature and of concern to associations and unions as well as to the individual. Elected members must necessarily be in touch with the workforce and the associations in order to properly perform their role on Council.

As a member of the general staff for 16 years and a long-serving honorary officer of the HREA (now President of the ANU sub-branch), I would like to ask for your support in this election. So that all general staff are kept aware of what is happening in Council and its Committees, I would plan to develop improved communication (sadly lacking at present). Also, I would seek advice and information from individuals, groups, unions and associations on particular matters, so that informed views could be presented to Council. I would aim to work closely with the other general staff representative on Council, in the best interests of all staff.

Finally, a few specifics about which I care. I am for wage justice—including retrospective payments when others get them, staff training and development aimed at flexibility and a career, not just a job, a lessening of stress in the workplace, improved relations with the academic staff, job sharing under proper safeguards, retirement with dignity. I am strongly against redundancy, dictatorial management (it does exist) and any attempt to erode established working conditions.



Letters = On the streets for Year of the Tree

After three terms as a representative of general staff on Council, I am not standing for re-election this year. However, I would not wish to retire from the position without a few comments.

When I was first elected six years ago it was clear that many Council members did not approve of the inclusion of general staff in their discussions, and were somewhat reluctant to listen to them. This has, I believe, changed considerably; we are heard more readily and with more understanding, though the end result may not always be as we would wish. It is unfortunate that we have to refer to 'academic staff' on the one hand and 'general staff' on the other; we are all employees, we all have a useful role to play, we all have problems and ambitions, but the use of separate names tends to lead to feelings of separateness and division.

Over the past few years the University has laboured under increasing financial restrictions, and it seems that each and every section of the University believes it has suffered more than any other! There is no doubt that there have been quite severe cuts in general staff numbers in many areas, with research assistants being among the first to be retrenched and the clerical field also being hard hit. While there may have been some 'fat' to be trimmed, I maintain—and have said in Council—that in many areas general staff cuts have reached the stage of being counter-productive, and are resulting in highly paid (academic) staff spending a significant part of their time on work which would be more properly (and efficiently?) done by clerks, laboratory technicians etc. In addition, the increased work-load has led to greater stress and increased health problems for many staff. By the way, I suggested that the lunches provided for Council members should be less lavish, non-alcoholic, and less expensive, partly as an economy measure and partly to ensure that all Council members stay awake during the afternoon; I do not know the fate of this suggestion.

During my years on Council, I have done my best to represent all the general staff (not any particular section of it); to have in mind not only the well-being of general staff but of the University as a whole; to ensure that problems of general staff are known; to be readily available to any staff member, and to help with individual problems. A full list of my activities would be too long for this note. As a small example, as a member of Council's Superannuation Committee, I have made sure that, in the long and involved deliberations on transfer to new schemes, the contributors to the Married Women's Fund have not been forgotten, and have sought to guard the interests of staff in the possible transfer to a new Universities Superannuation Scheme. Of the individuals who have sought my assistance I can, of course, give no details; suffice to say that they have included staff from many categories, with many problems; some were members of one union or another but did not wish to use that avenue, while others had no union affiliation; in each case I gave any help and advice I could.

This brings me to an important point. It is essential that a member of Council elected by general staff should be prepared to represent the general staff as a whole. A Council member who is bound or unduly influenced by, say, union decisions is not a proper representative. She or he must be free to use their own judgement and to speak and vote according to conscience. The assistance to individuals which I have referred to above is also of great importance, and must be rendered without fear or favour.

Pamela Morris Kennedy
1 March 1982



Elizabeth Hayden

Staff and students of the Department of Forestry had a day of fun when they entered a Year of the Tree float in the Canberra Day Twilight Procession. They won first prize in the comic section. Their float was pulled by a truck decorated as a tree with coloured birds

and butterflies. Recorded sounds of currawongs, parrots and kookaburras floated from the truck. Undergraduate students carried the papier mache trunk and distributed 600 seedlings to the crowd. The students wore standard forest gear, boots,

helmets and ANU Forestry sweat shirts. One graduate appeared in scanty women's underwear and carried a chain saw, a take-off of a popular advertisement for chain saws.

Curator sees need for new policy on ANU art collection

The University's art curator, Mrs Johanna Owens, believes it is time for the University to reconsider its arts acquisitions policy.

She said that thought should be given to consolidating the collection to make it more representative of original Australian art both in relation to art forms and to periods.

Careful choice and wise use of limited resources had allowed it to establish the basis of a significant collection, particularly of original Australian art.

But the gaps in its collection could not be filled from the meagre funds available from University sources and it had to rely on donations of money or art works, both of which were a tax deduction.

The University began building up its collection in the 1950s when it began making an annual provision, beginning with 200 Australian pounds. This was increased to 500 Australian pounds in 1965 and since then yearly provisions have been made except in times of particular financial stringency.

Most of the works collected are original prints such as etchings, lithographs and

screen prints. A small number of graphics from England, America, Japan, Finland, Mexico and China have also been acquired.

Among the significant works acquired are: 'Regeneration' and 'Seven Days of Creation' by Leonard French and 'River Bend' by Sidney Nolan. Other significant works are by Hans Heysen, Michael Taylor, Gareth Jones-Roberts and Lloyd Rees. The University is fortunate in holding original prints by notable Australian artists such as Roger Kemp, George Baldessin, Brett Whitely, Keith Looby, Russell Drysdale, Jan Senbergs, and Charles Blackman.

The works are not held in a single collection but are displayed throughout the University in offices or in public areas and are moved regularly between locations.

Mrs Owens said that the limited funds meant that ceramics and fabrics did not form a significant part of the collection although there was a hanging by Ben Shearer and a number of Les Blakeborough ceramics.

Indoor sculptures of note are the large

untitled piece in steel by Lenton Parr commissioned for the foyer of the John Curtin School of Medical Research, and the wood panel by Vincas Jomantis in the foyer of the Forestry Building. There are also smaller pieces by Norma Redpath, Monica Freeman, Clifford Last and Ross Manwaring.

One of the University's latest acquisitions is a triptych drawing by Noel Counihan.

A watercolour by John Borrack has been purchased with welcome and significant financial assistance from the Staff Amenities Fund.

Mrs Owens said the question of what to acquire and how best to make use of the very limited funds was a difficult one.

In the early days there had been an acquisitions committee comprising Mr S. F. Nadel, Professor G. Sawyer and Mr W. S. (Bill) Hamilton. Later Sir Daryl Lyndsay was the University's adviser, and later still advisers have been Mr Eric Westbrook and Dr H. C. Coombs. At present the University is advised by Alwynne Mackie and Ron Robertson-Swan.

Further information about the collection can be obtained from Mrs Owens on 49 2501.



Johanna Owens with a ceramic horse from the T'ang Dynasty—part of the Lyttleton-Taylor Collection.

Death of Dr Witold Zurkowski

Staff of the Department of Genetics, Research School of Biological Sciences, were saddened to hear of the death of Dr Zurkowski, 35, in a car accident last weekend in Canberra.

Dr Zurkowski came from Poland's Maria Curie Sklodowska University. He was given leave of absence to take up a research fellowship in the Department of Genetics.

Professor J. Pateman, Head of the Department of Genetics, said Dr Zurkowski, a microbial geneticist, was an expert on the role of plasmids in nitrogen fixation in plants and played an important role in the nitrogen fixation research group in the department. Dr Zurkowski leaves a wife and eight-year-old son.

Sir Ernest Titterton—looking back on a life without regret



Sir Ernest Titterton

Professor Sir Ernest Titterton, on retiring after 32 years as Professor of Nuclear Physics, Research School of Physical Sciences, said he was concerned at the direction the University was taking.

'Universities are a luxury; the public and politicians see them in this light which puts academics in a difficult position. Universities want to expand but they have to justify themselves.

'As I see it, universities are at the crossroads. Staff need to be more objective and less political in their thinking,' he said.

'Wisdom and understanding are needed, not political posturing, obfuscation and misleading information. The academic community is not sufficiently independent here and overseas. In some quarters it has a tendency to be too politically biased and insufficiently informed. It is an unfortunate situation that some academics, particularly non-scientists, talk about things they don't understand and they don't do universities any credit.'

In reviewing his academic career Sir Ernest

said that his fifty years in science had coincided with and aided all the significant developments in nuclear physics.

'My first physics work was in what we now call radar, radio direction finding. It was necessary to develop modulators and this led me to develop the triggered sparkgap,' he said.

From 1942-47 he worked with Professor O. R. Frisch on the first cross-section measurements on Uranium-235, and was the discoverer of the spontaneous fission of Uranium 238. Having gained a reputation as an eminent scientist, Sir Ernest was part of the British mission to the United States of America on nuclear weapon development. This work was carried out in secret at Los Alamos. He took an active part in the development of the first ever pulsing of a cyclotron for neutron time-of-flight experiments.

'I fired the world's first nuclear bomb, the Trinity explosion at Alamogordo in 1945, thus gaining a place in history as a result,' he said.

As if to dispell anti-nuclear opinion, Pro-

fessor Titterton reminds one that at that stage of World War II, people were crying out for a means to end the war.

'I believe that less lives were lost through the Hiroshima explosion than if Japan has been invaded. Certainly a lot of Australian lives were spared.

'Further,' he added, 'nuclear weapons have now made world war obsolete both politically and practically and have provided a deterrent of great importance.'

After the war Professor Titterton returned to Britain and led the nuclear emulsion and cloud chamber group at the newly formed Atomic Energy Research Establishment at Harwell and carried out work for the first nuclear power station at Calder Hall in England. 'It is still operating today and going better than ever,' he said, 'and likely to have 20-30 years more life.'

In 1950 he was appointed foundation professor of the Chair of the Nuclear Physics in the Research School of Physical Science. He served as Director of the School for seven years.

'After establishing our laboratory here we discovered many new nuclear reactions which put Canberra on the map and helped to reverse the brain drain of gifted Australian physicists who previously had sought work overseas.

'I built a number of accelerators here, the most recent of which is the 14UD pelletron accelerator developed by one of my lifelong friends, Professor R. Habin, of the University of Wisconsin. This machine was the first of its kind anywhere in the world. But now it is being passed by bigger and more costly accelerators coming to completion in the USA, Britain and Japan.

Before retiring he designed a new post accelerator to increase the capacity of the 14UD. 'The design was completed and the blueprint outlined in reports published before retirement and is within the capacity of the School's workshops and the nation's capacity to fund it,' he added.

To help finance the new machine Sir Ernest has sold two redundant accelerating

machines to New Zealand and Japan. These sales have provided 30 per cent of the funds necessary for the new accelerator.

'Looking back on my own career, I must say that Nuclear Physics has been an immensely successful discipline. It has solved the cosmological problem of how the elements were formed; solved the problem of the energy source of the Universe; provided radio isotopes of critical importance for medical diagnosis and treatment; provided accelerating systems for the therapy of cancers and other diseases; it has provided through nuclear energy or atomic energy, the solution to the world's energy supplies. Not least, the development of nuclear weapons has made war obsolete.'

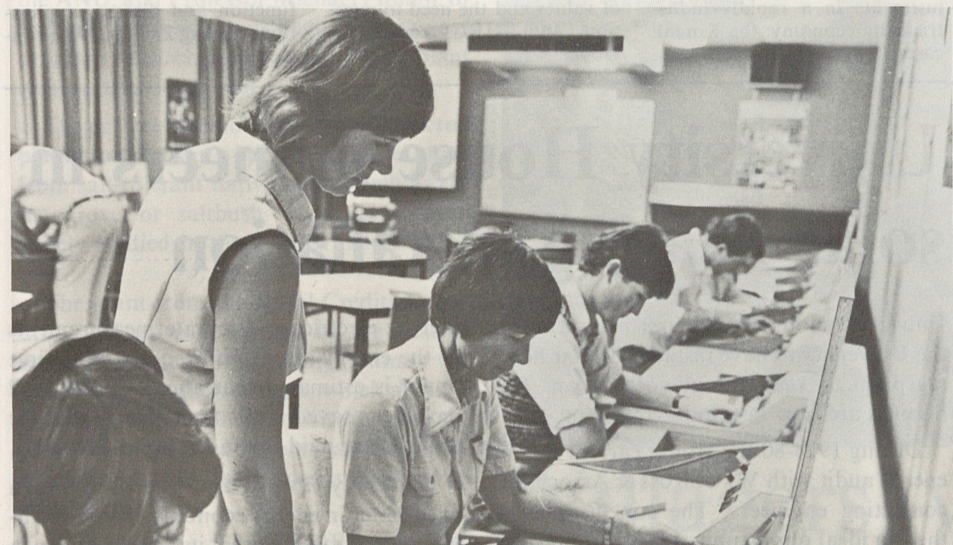
Sir Ernest, a tireless advocate of nuclear physics, wishes that lay people would understand the role of nuclear energy in their lives and be less emotional and more factual in discussions of it.

'Physics has been my life and I will always work for it. Although officially retiring I will be an honorary Visiting Fellow in the Research School for the next two years,' he said.

'In forty years time I'll be proved right. There will be nuclear power everywhere and people will be boiling kettles by it, even critics of nuclear energy.'

'I have been fortunate that all my life I've been paid to do what I would have done in any case.'

More flexible approach to lessons in ANU language laboratories



Mrs Robyn Stokes teaching Indonesian in the laboratories.

The newly refurbished language laboratories in the basement of the Chifley Library were in full use when the University's academic year began.

The laboratories, part of the Instructional Resources Unit (IRU), comprise three rooms where three different language classes of 25 to 30 capacity can be held simultaneously.

The new rooms are equipped so a teacher is not restricted to language drills and formal tuition. The director, Mr Colin Clark, said that each room was equipped with audio visual facilities, overhead projectors, 35mm slide projectors, 16mm films and video tapes.

Mrs J. Lingard, tutor in Indonesian, Asian Studies, said the laboratory presented great flexibility to teachers and students.

'While some of my students use the language laboratory tapes, others can move to other parts of the room for conversation

practice or remedial work. The mobility of the seating arrangements gives language teachers great flexibility in their teaching,' she said.

Dr A. Ravano, lecturer in Italian, who served as chairman of the Joint Faculties Language Committee Arts and Asian Studies, held meetings with the proposed users of the laboratories; to hear their views before construction.

'It is a great improvement and a valuable aid for both students and staff. At present in Italian only first year students use it, but it could be used for intermediate and advanced levels if lecturers had time to devise materials,' she said.

Mr Clark said that as well as the language laboratories, departments teaching languages can make use of IRU facilities for filming, making transparencies for overhead projection, remedial tapes, original course material, video and film material.

As an example, he said the IRU had recently made a video tape for Dr T. Diller of a Thai cookery demonstration with sound tracks in English and Thai. The IRU is also able to use material from countries such as Japan and the United States which are not in accord with Australian television standards.

A noticeboard has been hung near the laboratories and Mr Clark hopes that language students will make full use of it by advertising books and other items for sale.

D. A. Fetherston

Welcome party for the winners



Dave Paterson

The University recently held a welcoming party for its 13 new National Undergraduate Scholarship holders, chosen from around Australia for their academic excellence. At the function students had an opportunity to speak to the Vice-Chancellor, Professor D. A. Low, the Dean of Students, Dr Hector Kinloch, and the Deans of their faculties. Peter Antcliff (right), of Mildura, Victoria, an arts student, talks to his Dean, Dr Beryl Rawson.

Science Forum

Dr John Zillman, the Director of the Bureau of Meteorology, will address the National Science Forum lunch to be held at University House at 12.30pm on April 7. Dr Zillman's topic will be long-range weather forecasting. Inquiries to Jane Ford 488018/477220.

