

Female students and students under 21 obtain lower pay rates and students at rural institutions or enrolled in courses with shorter vacations, e.g. Medicine or Pharmacy, had less opportunity to take jobs. The students most likely to have low incomes were those for whom a variety of factors limited their access to income from one or more of the three main sources, e.g. students on T.E.A.S. receiving no parental assistance or 'no award' students with low earning capacity.

The median expenditure for full-time tertiary students in 1974 was \$1,897 with an interquartile range from \$1,224 to \$2,840.

The respondents were asked to state in detail all the costs they incurred during the 1974 calendar year. The major factor associated with level of expenditure was residence. Students living in the parental home reported a median expenditure of \$1,364, those living in college spent a median of \$2,131 and those living 'elsewhere' spent \$2,755 per annum. Although the level of expenditure varied markedly, the main costs were the same for all students: food, accommodation and travel. Residence influenced the proportion of the budget allocated to each of these areas, students living in the parental home spent a greater proportion of their budget on travel costs.

Of the five minor categories (each was less than 9 per cent of the total expenditure) the most relevant was 'course-related costs' e.g. union fees, books and the cost of materials. This item varied greatly according to course of enrolment with liberal arts students reporting the lowest costs and medical students the highest. Even in the lowest cost courses, the median expenditure on this item exceeded the \$100 T.E.A.S. incidentals allowance.

When the income and expenditure figures were compared, a median deficit of \$88 was found. After allowing for possible errors in reporting or

calculating expenditure, two possibilities remained: that students were relying on savings or that they were getting into debt. A quarter of the respondents said that they were using savings acquired before 1974. There was also some support for the possibility that some students were getting into debt, in that the largest deficits were found among 'no award' or T.E.A.S. students. Some of these deficits amounted to hundreds of dollars; among female students with no award who were living away from home, the median deficit was \$571.

It has only been possible to give a very brief idea of the main findings in a short article, but one fact seems to emerge clearly: there are many more questions about student finances than there are answers. It is not known, for example, whether students who work during the academic year make poorer academic progress as a result of their need to earn money. This possibility could only be tested if a longitudinal study were carried out, but this work is not being done. Nor is it known to what extent the change in the economic climate since 1974 has affected the level of student income or the ways in which it is made up. As none of the student assistance schemes have kept pace with inflation, and as work is becoming harder to find, the picture of student budgets may be a very different one if the survey was repeated today. One might expect to find a higher proportion of students living in the parental home, more students with deficits and with larger deficits.

Inquiries about the raw data of this survey should be directed to the Education Research Unit, Department of Education, Woden, A.C.T. 2606. The complete findings have been published in a report entitled "Income and Expenditure Patterns of Australian Tertiary Students in 1974", Department of Education, Research Branch Report No. 1, available from the Australian Government Publications Centres.

## EQUIPPING STUDENTS TO FIND OUT FOR THEMSELVES

Ursula Dash\*

Few would question that a university education should produce independent minds. A necessary prerequisite for this is the ability to find and evaluate information. Too often this is an art that students are presumed to acquire by the mere fact of attending university. This article will discuss ways in which the university library in co-operation with the teaching staff, can ensure that information gathering techniques become an integral part of the university education of first year students.

David Stephens in his article "A comment on introductory courses in political science"<sup>1</sup> discusses the changes frequently rung in first year political science courses. He suggests that it might be more fruitful to alter course structure and learning method rather than content: "although an introductory course may be thoughtfully constructed and intellectually satisfying to its creator, it fails if it does not hold the interest of its students".<sup>2</sup> This emphasis on the student rather than the course is very practical. Given a generalized course framework and the right information skills, the student's interest can determine the emphasis of his or her course. If students have the ability to find and evaluate information their interest can range widely, and they can test their ideas against those of experts in the field. The result could be variety in course content, greater independence of student thought and more lively tutorial sessions.

### Implications for the library

Teaching the skills involved in finding and evaluating information implies a co-operation between library and academic staff. Stephens recognises that if students are to escape from the "lecture rut" to follow their "own interests within a general framework" there will be implications for the library like "diversion of money from building lecture theatres to stocking libraries with multiple copies of basic books, to photocopying of periodical articles and less accessible references (with necessary compensation to authors) and to compilation of *ad hoc* readers".<sup>3</sup> Though the relevance of the library to such changes in course emphasis is undoubted the suggestions quoted above imply another form of the spoon-feeding from which Stephens would like to free undergraduate teaching. This is not to deny that there will always be seminal works which all students will need to consult. These should be bought by students, or, if this is not practicable, made available in multiple copies or rationed out through some form of reserve procedure. However if students are totally dependent upon "key" works whether books or photocopied journal articles, two undesirable results follow:-

- (1) students do not achieve the independence of being able to find information for themselves, and
- (2) many library resources not designated "important" are wastefully under-utilised.

If it is accepted that for these reasons students need to acquire literature searching techniques, two questions must be asked. Why do students so often fail to learn these techniques? And what is the best way to impart them?

The inability to find and evaluate material stems partly, as Stephens recognises, from a failure to instruct students "in the techniques of the discipline".<sup>4</sup> There is a need "to devote time early in courses to exercises in how to extract the argument from a piece of writing, how to summarise main points, how to criticise and how to write an essay or paper as well as in the technicalities of footnoting, bibliography and even in the use of library catalogues".<sup>5</sup> I would delete "even" from this sentence and insert "certainly in the use of library catalogues". This is not done purely out of professional chauvinism! The student who cannot use the library's catalogues efficiently remains dependent on reading lists. As a minimum the first year student should be able to use the library's catalogues and a general index to journals so as to be able to find both books and periodical articles in his or her chosen area. Because the storage and dissemination of information is the special preserve of libraries, instruction in information searching is an obvious area for co-operation between teaching staff and librarians.

### Reader Education

Academic libraries are putting increasing emphasis on reader education (sometimes called library instruction) realising that many of their readers do not possess the skills to utilise the collections fully, or the awareness of the information potentially available which would encourage the formulation of reference queries.

What is meant by reader education will become clearer in the ensuing discussion of the roles of departments and the library in increasing the student's capacity to find and evaluate information required in introductory courses. There is no intention whatsoever that librarians should pre-empt the teaching staff's responsibility for the imparting of subject knowledge and the criteria for its evaluation.

The purpose of reader education is to give students an overview of how the literature of their subject is structured and to equip them with the basic skills for finding required information efficiently and confidently. Such training saves students' time and

\*Reader Education Librarian, La Trobe University.

frustration and produces advantages for the academic staff who have less need to provide reading lists and can ask for more adventurous work from their students.

Learning occurs most easily when that which is to be learned is obviously relevant and useful. In the case of first year students literature searching skills would be well learned in the context of the first major exercise or essay, especially if part of the assessment were dependent upon bibliographical expertise.

To take a practical example, suppose that an essay is set for which no reading list is provided. The students know that they are to trace the historical development of a concept, outline the current schools of thought and substantiate their own position. The library is asked to organise a reader education programme to prepare the students to undertake the essay. The librarian involved translates these essay requirements into the literature searching skills necessary to be able to find relevant information. In this case, the student must be able to:-

- (1) use the library's catalogues, especially, the subject catalogue, to discover what relevant books the library has in its collection,
- (2) use an index to periodical literature to discover journal articles which are especially useful for contemporary developments,
- (3) interpret footnotes and bibliographical citations so as to follow-up leads found in any of these sources.

All these are bibliographical skills useful in any discipline. The knowledge to impart them and the facilities to do so, are most readily available in the university library. The precise nature of the library's reader education programme will depend partly on the number of students in the introductory course. As enrolments are often one hundred or more, individual or small-group reader education is usually impracticable. The "library lecture" has sometimes been used because it easily reaches the whole group and, what is most important, during scheduled contact time.

Though it is no way to impart practical skills, half an hour of a scheduled lecture can be used to introduce the chosen form of reader education and to make a "library face" familiar and approachable. The latter is essential to the success of reader education for first year students often overwhelmed by the size and complexity of the institution.

Two methods of discovery learning have been used quite successfully with large enrolment introductory courses at the La Trobe University Library. These are the "Pathfinder" and the self-guided library tour\*, both of which are appropriate either to broad

subjects like history or to specialized areas such as the sociology of groups. In each case the student works alone following prescribed steps. Assistance, if needed, is always available from the reference librarians.

Our "Pathfinders", or introductory guides to the literature, have much the same format as those originally produced at the Massachusetts Institute of Technology. They are printed on A4 systems board (or light card stock) fitting easily into a folder and durable enough to withstand frequent consultation. The sources introduced in each case will be dictated by the needs of the course. Types of information sources are introduced in the order in which they will usually be consulted. Where necessary the scope is indicated and assistance given with the choice of entry point — often a subject heading.

The self-guided tour on audiotape is similar in scope to the pathfinder. The medium has the advantage of providing some of the immediacy and sense of personal contact of the conducted tour. Because the student performs a step in the search and then returns to the tape, likely problems can be anticipated and corrected.

These are two of the reader education approaches used quite successfully with high-enrolment first year subjects at La Trobe University Library. Other methods are available for smaller groups and more advanced students. The enthusiasm with which these programmes are usually received, and the delight with which students discover simple aids to information-gathering such as periodical indexes, is evidence of the great need for reader education within university courses.

#### REFERENCES

1. *Vestes*, vol. XVIII, no. 2, Nov. 1975, p. 118-122
2. *Ibid.* p. 118
3. *Ibid.* p. 120
4. *Ibid.* p. 120
5. *Ibid.* p. 121

## LETTERS TO THE EDITOR

### CURRICULAR QUESTIONS AND MODEL ANSWERS: A REPLY

Sir,

Perhaps I might be allowed to pull my crumpled self out of the waste-paper basket into which I have been tossed and reply to Dr. D. K. Wheeler's attack on an article of mine.

First, let me assure him that I am aware of his home-spun product and in a Universities Quarterly article I actually quote Dr. Wheeler's model. In that article I go on to say: "I suggest that these approaches to curriculum development are, to say the very least, not helpful — and they could be damaging."

Clearly there are fundamental differences between us! These differences seem to be as follows:

- (a) I believe that content can be a fruitful area for deriving course aims and that curriculum theorists should not decry the importance of content in this process;
- (b) behavioural objectives have very little use in university education;
- (c) models are tools and should be treated as such.

In his book, Dr. Wheeler states "Content is important only in so far as it helps to bring about intended outcomes." I believe that content (that body of knowledge that makes a subject what it is) is worthy of a higher place than that, especially in a university. I fancy that most tertiary teachers would also agree with this.

There is a substantial literature arguing the case both for and against behavioural objectives. I will not weary people by repeating the arguments here. However, my work in this university has shown me how inappropriate are behavioural objectives to most areas of education. Such objectives might be of use in training people to perform (say) skills on a factory production line but they do not appear to have much relevance to (say) a course in history. I would, however, put up a spirited fight for a general statement of course aims, suitably illustrated with examples of how they might be achieved and assessed.

I am challenged for stating that "specific objectives are rarely formally assessed". If Dr. Wheeler would care to study recent undergraduate examination papers he would appreciate the truth of my statement. Also, my comment that taxonomies are man-made was a serious one. The damage to education caused by the Bloom taxonomy having been interpreted as some sort of "truth" has yet to be evaluated.

If I prefer to use a spade to dig a hole rather than to employ a computer-assisted bulldozer, then that is my affair. I am aware that computer-assisted bulldozers exist (perhaps I would gain acceptance if I were to call them CAB's?) but the "spade" I described has been useful in this university and led to the production of popular and (I am told) helpful publications. But I would never imply that another person is either ignorant or a fool because he chose not to use one of my models when developing curriculum. (I say this because I believe that there is never a "best" way in education, only a variety of alternatives.)

Yours faithfully,  
William C. Hall,  
Director, A.C.U.E.,  
University of Adelaide  
25th August, 1976.

Sir,

We think it improper that a senior member of academic staff (E.C.B. MacLaurin) should write to *Vestes* as an academic head on a subject quite outside his discipline. We can only expect him to speak with academic authority in the area of Semitic studies; his attempt to write under the cloak of the Head of a department upon a subject in which he is not professionally expert is a prostitution of his position as a scholar. Who can respect a Professor of (say) Semitic Studies who from his chair advises fellow academics on how best to express their political convictions?

Yours faithful,  
Braham Dabscheck,  
Peter R. Shergold,  
School of Economics,  
University of New South Wales.  
2nd September, 1976.

\*Copies are available from the Reader Education Librarian, La Trobe University Library, Bundoora, Victoria.