

- Loftus, A. P. T. (1970): *Alpert and Haber A.A.T. Scales: Scoring and Norms*. Mimeographed Table, Student Counselling Unit, University of Newcastle (N.S.W.).
- Loftus, A. P. T. (1971): *Study Skills Programmes*. Paper presented at the Australian Association of Student Counsellors' Conference at La Trobe University.
- Loftus, A. P. T., and McKerihan, G. (1971): *Some Characteristics and Performance of the 1969 University of Newcastle Intake* (University Skills Assessment Report No. 1). Mimeographed document, Student Counselling Unit, University of Newcastle (N.S.W.).
- MacKintosh, J. M. (1971): *Annual Report*. Mimeographed document, Student Progress Office, University of Aberdeen.
- MacKintosh, J. M., and Bassett, L. A. (1971): *Second Chance Survey: Notes for Students Discontinuing Studies from Scottish Universities*. Edinburgh: Scottish Education Department.
- Miller, G. W. (1970): *Success, Failure, and Wastage in Higher Education*. London: Harrap.
- Otto, E. P. (1974): *The Australian Scholastic Aptitude Test and other factors related to Tertiary Academic Achievement*. M.A. Thesis, The University of Adelaide.
- Rump, E. E. (1968): *An Investigation deriving from Barron's Personality Research*. Paper read at the Australian Psychological Society Conference at Brisbane.
- Sanders, C. (1953): University Selection: Some Psychological and Educational Factors. *Australian Journal of Psychology*, 5, 2, 118-132.
- Sullivan, K. M. (1970): *Norms for Alpert-Haber Achievement Anxiety Test*. Mimeographed tables, Counselling Service, The University of Western Australia.
- University of Adelaide (1972): *Statistics for the Year 1971*. Mimeographed report, The University of Adelaide.

STUDENT ATTITUDES TO UNDERGRADUATE ASSESSMENT

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WRITTEN examinations have long been a target for criticism. Periodically attacked by academics for their low reliability,¹ and low predictive validity,² examinations have in recent years become the subject of growing student discontent. Organised campaigns in Australia³ and overseas,⁴ and spontaneous group protests on a smaller scale, have made a number of allegations against examinations and their effects, e.g., that they stifle creativity and determine the structure of courses rather than serve them, and are one cause of a higher rate of suicide among tertiary students than others of the same age.

These are serious allegations, and the agitation has been both widespread and persistent; there have, however, been remarkably few attempts to investigate student attitudes to examinations. Cox⁵ explores the relationships between student attitudes to assessment and their other attitudes and beliefs; he concludes that the former are related to students' ideals of university learning. He suggests that there has been a change in the student's image of his goals from that of apprentice professional towards those of increasing self-knowledge through university study. Consequently, they have become dissatisfied with an assessment system which remains geared to an apprenticeship model of tertiary education, rather than to guiding individuals in their efforts to master complex subject matter. In some cases, he maintains, this dissatisfaction has become so great that students feel that the examination system has compromised their autonomy and negated their individuality. The most disturbing possibility raised by Cox is that antipathy to examinations may render it impossible for a student to sit an examination, or may significantly impair the performance of one who does.

The Survey

In late 1973, the C.S.H.E. and the S.R.C. at the University of Melbourne co-operated on a survey of undergraduate attitudes to assessment. The aims of this survey were: (1) to obtain the opinions

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of a cross-section of Australian undergraduates about the purposes and forms of assessment; (2) to investigate any possible relationships between attitudes expressed and the faculty of enrolment; and (3) to investigate the possibility that objections to assessment by examination might be associated with poor academic performance.

(a) *The Sample*

After a pilot study, the questionnaire was sent out to 400 students, a random sample of 100 second-year students from each of four faculties: Arts, Engineering, Law and Science. Second-year undergraduates were chosen because they had all experienced at least one set of university examinations, and because this allowed a choice from five faculties which contained 100 or more students at this stage in their courses.

The four faculties chosen were felt to represent a range of disciplines, since Arts and Science present "general" courses not tied to any particular profession, whereas Engineering and Law are specifically professional faculties, oriented towards science and humanities respectively.

There is considerable variation in systems of assessment across these faculties. The Science faculty organises its courses on a unit basis in which written examinations are held at the end of each term; the other three faculties hold the main written examinations at the end of the year, usually covering the whole year's work. The percentage of the final mark in a subject which is determined by written examinations varies greatly even within departments, the most usual pattern being a mixed assessment in which a written examination determines two-thirds to three-quarters of the total mark and assessment of course work (essays, papers, projects, practical work, etc.) the remainder. Of the faculties surveyed, Engineering and Science tend to rely heavily (often entirely) on written examinations as the formal assessment, whereas Arts and Law almost invariably include a proportion of course work assessment.*

(b) *The Response*

The questionnaire was timed to arrive approximately three weeks before the start of the November examinations. A follow-up letter was sent to all who had not replied within two weeks of the first mailing, and the final response was 75 per cent of the sample, spread evenly across the faculties.

The Results

There was considerable support (86 per cent) for the view that

* This finding has emerged from as yet unpublished data on assessment procedures collected by the Centre for the Study of Higher Education.

there should be some form of assessment in university education; only 6 per cent believed that it should be abolished entirely, while 8 per cent had no clear preference. Of those who denied the need for any assessment, a total number of 17 respondents, there was a slight majority of Arts students.

The replies to later questions dismiss any suggestion that this belief in assessment is no more than an unreflecting acquiescence in traditional procedures. Rather, students believe that, if the necessary changes were made, assessment could serve a much more useful function in education; but this is seen to involve fundamental changes in the purposes of assessment.

Students were asked to rank eight possible aims of assessment in order of importance. (These are shown in Appendix 1.) First, they were directed to rank these as they perceive them to function at present. Next they were asked to rank the same aims as they would like to see them in an ideal situation. The majority ranked the three main functions of the present system of assessment, in descending order, as: (1) to motivate students to study; (2) to select students for honours, scholarships and higher degrees; and (3) to ensure that professional people are properly qualified. There were few faculty differences observable in the order of preferences, but it was apparent that Arts and Law students tended to share similar opinions, as did the Engineering and Science students. The latter two faculties were a little more likely than the others to believe that the current system of assessment does "promote students' intellectual independence and development", and Science students were the most likely to feel that assessment at present can "show students the extent of their knowledge". This may be related to the unit system in Science which allows for more frequent assessments, concentrating each time on a smaller area of knowledge (i.e., a term's work instead of a year's).

Respondents were next asked to rank the same list of goals according to their ideal importance; their answers showed a dramatic reversal of priorities. The alternative "to promote students' intellectual independence and development" rose from last place in the current situation to first in importance in the ideal state. The next highest ranked were "to show students the extent of their knowledge" and "to ensure that professional people are properly qualified". The goals of selection and motivation dropped to the bottom of the list of ideal functions. There was considerable unanimity across the faculties in the view of an ideal assessment system, with the sole exception that Arts students as a group thought professional certification of less importance than did students from the other three faculties.

Opinions about appropriate methods of assessment appeared to be strongly influenced by these views on its ideal purposes. Two questions were asked on methods of assessment: one on the preferred proportions of course work and examination assessment, and the other on the conduct and timing of examinations. There was considerable recognition of the fact that different courses required different types of assessment. As well as the marked faculty differences in preferred methods, there were frequent comments from students that their own preferences might not be equally suitable for all courses.

They also recognised individual differences in ability to perform well under the various forms of assessment. The comments on both questions showed that they wanted a system of assessment which would be "fair to all types of student". In order to do this, they felt that any assessment system should include a range of methods and that students should have a *choice* among methods wherever possible.

Almost all courses at the University of Melbourne determine part of the final mark by course work assessment (i.e., essays, projects, lab. work, etc.). Most of the students surveyed felt that course work should become more important in determining the final assessment. The respondents were asked to rank six possible combinations of exam and course work assessment in order of preference. The combination 50 per cent by exam and 50 per cent by course work was the most popular way of determining the final mark. Students commented that both examinations and course work assessment had good features and so an equal combination of the two was better than one or other alone. The points most often cited in favour of examinations were: they were less time-consuming for the student, are necessary for professional courses and prevent cheating in course work. Course work assessment was felt to be less stressful, to assess a greater proportion of the year's work and to encourage "real" learning.

Of the two extremes, no student gave first preference to the option of determining the final mark entirely by examination, and at the other end of the scale, the option "100 per cent by course work assessment" was placed equal third in terms of numbers of first preferences received. When the median rank was calculated, "100 per cent by course work assessment" fell to fourth place. The comparatively greater popularity of course work alone compared to exams alone was due to a strong tendency among Arts students to give this first preference. They commented that the negative aspects of examination assessment, when applied to the work entailed in an Arts course, outweighed any potential benefits.

Only the Engineering and Science faculties showed substantial support for any combination with more than 50 per cent weighting for examinations. Approximately one-fifth of students in both faculties gave first preference to the 75 per cent examination:25 per cent course work option. These students felt that a major component of examination assessment would prevent heavy course work loads and would allow students to do little or no work at the beginning of the year but still "redeem themselves at the end".

The replies to the various sections of the question on how formal exams should be conducted indicated that students wanted a reduction in the formal aspects of written examinations. As a group, they preferred open to closed book exams, frequent small exams to annual ones, unseen to seen papers and flexible to rigid time limits. The figures for the whole group conceal large, faculty-related differences in preference, some of which could be plausibly related to differences in the systems prevailing within the four faculties. The relationships between previous experience and current preferences are not simple ones, however.

The strongest support for open book examinations was found among Law students. Of the four faculties surveyed, open book exams were indeed commonest in Law, yet a majority of students in each of the other three faculties preferred them to closed book exams, even in Engineering and Science where this form is comparatively rare. Similarly, most Science students endorsed their faculty's practice of examining more frequently than once a year. A majority preference for more frequent but smaller examinations was also found in Engineering and Law, where annual examinations are the rule. Arts students were almost equally divided on this question, with annual examinations being slightly more appealing. Their replies appeared to assume that they would be called on to do more exams in addition to their current course workload, and that this would be too heavy.

The question on seen v. unseen papers elicited the greatest faculty-related differences. Only Arts students preferred seen papers. The comments from students in the other three faculties show that they fear that seen papers would mean a steep rise in difficulty of the questions, and that some students would study only for the questions on the paper.

All faculties surveyed preferred flexible to rigid time limits on exams, despite the fact that flexible limits are so rare at the University of Melbourne that very few respondents would have experienced them. A common remark was that flexibility should be kept "within reason" but there seemed to be general agreement with

the Law student who wrote, "If you know it you ought to be able to show it".

Although there are indications that opinions about the conduct of written examinations are partly dependent on past experience, students from all faculties surveyed seemed to want examinations to be less structured and to be combined with a larger proportion of course work assessment than is now customary.

It was not possible to detect any relationship between academic achievement (as measured by a result index based on the final marks in each subject taken) and attitudes to assessment. This sample contained only students approaching the end of their second year, but most dropouts leave before they reach this stage. Although there is no detectable relationship between attitudes and achievement in this sample, there may be such a relationship in a sample including first-year students.

Methods and Purposes of Academic Assessment

The discrepancy between what students see as the current and as the ideal purposes of assessment reflects the distinction often drawn between "assessment for credit" and "feedback assessment". The former is concerned with assessment as an administrative tool to grade, select and "certify" students. "Feedback assessment" is a critical evaluation solely for the guidance of students and teachers. It is a strong conclusion from the survey that students believe that assessment, instead of providing a source of motivation and selection criteria, should primarily function as an aid to the individual's learning, promoting intellectual development by providing critical guidance on the individual's progress. The need to safeguard the community by professional certification is seen as secondary, but important nevertheless.

Summary

University students generally believe in assessment. However, they believe that it should be less formal, more flexible and incorporate a much larger component of course work assessment than the methods of assessment used at present. They believe that assessment should no longer be a competitive grading, but should provide feedback on the progress of each student.

APPENDIX 1

The respondents were asked to rank the following eight possible aims of assessment:

- (1) To motivate students to study.
- (2) To ensure that professional people are properly qualified.

- (3) To select students for honours, scholarships and higher degrees.
- (4) To show students the extent of their knowledge and understanding.
- (5) To promote more efficient teaching.
- (6) To promote students' intellectual independence and development.
- (7) Maintain high academic standards.
- (8) Predict future performance and job competence.

REFERENCES

- ¹ Hartog, P., and Rhodes, E. C., *An Examination of Examinations*, London, 1935.
- ² Hudson, L., "Degree Class and Attainment in Scientific Research", *Brit.J.Psych.*, 51, 1960.
- ³ Australian Union of Students, *Examination Papers*, published by A.U.S. Drummond Street, Carlton, Victoria, July, 1974.
- ⁴ N.U.S. *Executive Report on Examinations*, National Union of Students (U.K.), 1969.
- ⁵ Cox, R. J., "Traditional Examinations in a Changing Society", *Universities Quarterly*, Spring, 1973.