

## THE CHARACTERISTICS AND MOTIVATIONS OF STUDENTS WHO WITHDRAW WITHOUT FAILING

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### *Introduction*

THERE have been relatively few studies of students who withdraw from Australian universities without failing. Once students have withdrawn, they become relatively inaccessible, and might be regarded as no longer the concern of academics. Nevertheless, such students form a part of the problem of "student wastage", and we need to know something of their characteristics and reasons for withdrawing. In particular, we should attempt to determine whether withdrawals reflect any faults within the University or any limitations within the students, or whether they are merely the result of external circumstances.

The aim of the present study was to examine the characteristics, study habits and motivations of students who officially withdrew from the University of Adelaide without failing, during the first half of the session. In addition, it was possible to offer such students counselling should they request this, together with information as to their psychological test results. Some student respondents made specific queries about later re-enrolment, and these were answered. Students who withdraw during their first year at university are of particular interest, and such students were more intensively tested in the study.

The sample examined was limited to the one university, and included only students who completed the official withdrawal form. Questionnaires and tests were completed only by those who agreed to assist. It may be therefore, that extremely disturbed, disillusioned, or apathetic students were under-represented in the study.

### *Samples and Methods*

The group included in the study consisted of students who officially withdrew from all subjects without failing before 31st July. Those who had not previously enrolled at the University were

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considered separately from those who had been previously enrolled. The new students who withdrew numbered 109, which represented 6.9 per cent of new undergraduate students at the University. There were 278 previously enrolled students who withdrew, and they represented 4.2 per cent of such students. Three methods were used to obtain information about the group or about samples from it.

*Recorded information:* Each student's faculty, and whether he was a full-time or part-time student, was determined from the University's records. In addition, the matriculation score was obtained for each of a subgroup of the new students who withdrew, this score being the total of the five best percentage marks obtained in the matriculation examination. The matriculation score was obtained only for those students who had never previously attended any university (excluding adult matriculants and overseas applicants), so that the number in this subgroup was 56.

Analysis of matriculation scores for re-enrolling students was not undertaken, owing to the very wide dispersion of their years of matriculation. As many as 61.5 per cent of these withdrawing students had initially enrolled five or more years previously, and indeed 21.2 per cent had enrolled at least ten years before.

For all but 97 withdrawing students, reasons for withdrawing were officially recorded. However, the records used only broad categories without examining specific reasons, and could have been biased by some students wishing to present an officially acceptable reason. Therefore, a questionnaire was also used as described below. The questionnaire listed much more precise reasons than the official categories, although a rough equivalence between types of reasons may be drawn between the two methods.

*Questionnaire:* Withdrawing students were invited to participate in the study by one or more letters. They were asked to complete a questionnaire concerned with their background and reasons for withdrawing. Of the students new to the University of Adelaide, only those 77 found to be new to all university studies were invited to answer the questionnaire, as it was considered that this would give a clearer picture of the completely "new" student. Of these, 28 students actually completed the questionnaire and the full testing programme described below. Of the 278 previously enrolled students, 109 completed the questionnaire. The response rate was thus somewhat over one-third for both subgroups. Many of those excluded had changed address and could not be contacted.

The questionnaire asked respondents to indicate reasons for withdrawal on a check-list, including their order of importance.

The 28 possible reasons listed on the form were grouped into sets covering financial difficulties, alteration in circumstances or life-style, poor health, difficulties with employment, problems with study or university life, preclusion from continuing a course, and any other personal reason. The questionnaire also asked about intentions with respect to later re-enrolment, and about the experience of parents in tertiary education.

*Psychological tests:* The students who were new to university life and who had withdrawn before completing any subject were of particular interest. Had they been traumatised into a state of high anxiety? Did they have inappropriate study habits? Or were they simply lacking in motivation to continue the role of student, having found it no sinecure? To obtain answers to these questions, the 28 volunteers were given a series of four psychological tests.

Alpert and Haber's (1960) Achievement Anxiety Test, consisting of 19 scoring items, was used to assess Facilitating Anxiety and Debilitating Anxiety. Rump's (1968) Self-description Check List was used to assess Emotional Activation and Creative Independence. This list consists of 36 adjectives, 18 for each scale, and is balanced for positively and negatively scoring items.

Brown and Holtzmann's (1967) Survey of Study Habits and Attitudes (Form C) was used to assess behaviour and attitudes relevant to successful study. The Survey provides four scales: Delay Avoidance, indicating promptness in completing academic assignments; Work Methods, concerned with efficiency in study; Teacher Approval, reflecting the student's opinion of his teachers; and Education Acceptance, concerned with the student's approval of educational objectives, practices and requirements.

Cattell, *et al.*, (1964) Motivation Analysis Test (Form A) was used to obtain measures of level of motivation on ten factors. These factors include five motivational drives such as sex, and five sentiments, such as career interest.

#### *Results and Discussion*

*Part-time study:* A far greater proportion of part-time students withdrew compared with full-time students (University of Adelaide, 1972). (Staff members were excluded from the part-time total.) The proportions of new students withdrawing were 12.5 per cent and 4.3 per cent for part-time and full-time respectively, and the difference is statistically significant.<sup>1</sup> A similar difference was found for previously enrolled students: 8.0 per cent of part-time students

<sup>1</sup> Chi-square = 33.07, 1 d.f.,  $p < .001$ ; Yates' continuity correction was included for all such fourfold contingency tables.

withdrew compared with only 1.6 per cent of full-time students.<sup>2</sup> These results agree with much previous evidence of the relative difficulty of part-time study. Indeed, Anderson (1963) concluded that "the chances of a part-time student completing a university course are much less than for a full-time student".

*Faculty:* The withdrawing rates for different faculties are shown in Table 1. Arts and Economics students had a significantly higher likelihood of withdrawing than students in Science or the professional faculties.<sup>3</sup> This difference was partly due to the Arts and Economics faculties having a similarly higher proportion of part-time students, as shown in the Table, for part-time students have a much higher withdrawing rate as we have just seen.<sup>4</sup>

TABLE 1  
*Withdrawing rates and proportions of part-time students in different faculties*

Faculty	Withdrawing rates		Part-time proportion
	New undergraduates	Previously enrolled	All students
Arts	9.9%	7.1%	50.8%
Economics	11.7%	6.8%	53.8%
Science	4.3%	2.1%	17.1%
Professional	4.8%	2.0%	18.4%
All	6.9%	4.2%	31.8%

*Matriculation:* Matriculation results usually correlate with examination results. Sanders (1953) noted that "the correlations between entrance examination and first year are usually between .55 and .65". More recently, differences between faculties have been noted. Loftus and McKerihan (1971) and Biggs (1970) found higher correlations for Science than for Arts students at Newcastle and Monash respectively. At the University of Adelaide, Otto (1974) has obtained correlations between matriculation scores and the average mark for first-year subjects of .56 for Arts and .67 for Science students. Thus students who do badly in examinations tend to have low matriculation scores.

<sup>2</sup> Chi-square = 167.91, 1 d.f.,  $p < .001$ .

<sup>3</sup> For new undergraduates, chi-square = 20.02, 3 d.f.,  $p < .001$ ; for previously enrolled students, chi-square = 103.70, 3 d.f.,  $p < .001$ . Professional faculties included Agricultural Science, Architecture, Dentistry, Engineering, Law, Medicine, Music, and Applied Science; all had low withdrawing rates and were therefore combined.

<sup>4</sup> Faculties differ significantly in their part-time proportions; chi-square = 1031.44, 3 d.f.,  $p < .001$ .

It is therefore relevant to ask whether the new students who withdrew without being examined also tended to have low matriculation scores. To compare with the withdrawing students, a sample of continuing first-year students was obtained by inspecting every seventh card in the records. Comparison may also be made with Otto's (1974) data for full-time entrants to the University, although this comparison is less informative since part-time students are excluded and "entrants" includes some withdrawing students.

Average matriculation scores for the withdrawing students and the two comparison samples are shown for each faculty concerned in Table 2. For all six faculties from which students withdrew, matriculation scores for withdrawing students were lower than those for the continuing first-year students or those for full-time entrants. The overall difference between withdrawing and continuing students is about 26 points, and statistically significant.<sup>5</sup> The clear implication is that students with much poorer than average academic ability should consider carefully, before they enrol, whether their circumstances and motivations will allow sufficient studying time to overcome this handicap.

*Stated reasons for withdrawing:* The frequencies of various types of reasons for withdrawing are given in Table 3 for both the

TABLE 2

*Mean matriculation scores for (a) new students who withdrew without failing, compared with (b) a sample of continuing first-year students, and (c) full-time entrants*

(The numbers of cases are shown in parenthesis)

Faculty	Adelaide Samples		
	(a) Withdrawals	(b) First-years	(c) Full-time entrants*
Arts	263 (27)	288 (92)	285 (186)
Economics	263 (11)	285 (26)	286 (60)
Engineering	221 (2)	280 (26)	300 (117)
Law	249 (5)	266 (20)	283 (57)
Medicine	300 (1)	318 (21)	315 (29)
Science	262 (10)	285 (74)	298 (283)
All six	261 (56)	287 (259)	294 (732)

\* Data for sample (c) were extracted from Otto's (1974) thesis.

<sup>5</sup> To test significance it is sufficient to note, with all six faculties giving results in the same direction,  $p < .05$  using the Binominal distribution.

questionnaire and for the official records (Birks, 1971). The questionnaire percentages may be more valid, since there was no need for students to justify their withdrawal by giving officially approved reasons. Thus the category of "health reasons" is slightly more pronounced in the official records. Table 3 includes only primary reasons, rather than subsidiary factors, although a few students gave more than one equally important primary reason. Students who had been only provisionally enrolled (31), or had completed their course (5), or had died (1) were excluded.

The separation of the questionnaire respondents into new and previously enrolled groups shows that their predominant reasons differ. The new students much more frequently indicated difficulties with studies or university life as the primary reason compared with previously enrolled students, 50.0 per cent compared with 11.8 per cent, and this difference is statistically significant.<sup>6</sup> Conversely, the previously enrolled students much more frequently specified a reason connected with their employment, 54.5 per cent compared with 14.7 per cent, and this difference also is statistically significant.<sup>7</sup>

TABLE 3

*Stated primary reasons for withdrawing without failing*

Type of reason	Questionnaire				Official record	
	28 new undergraduates		109 previously enrolled		253 withdrawals	
	No.	%	No.	%	No.	%
Financial Life circumstances	5	14.7	10	9.1	30	11.9
Health	4	11.8	19	17.3	34	13.4
Employment	3	8.8	7	6.4	36	14.2
Studies/university	5	14.7	60	54.5	105	41.5
Other (personal)	17	50.0	13	11.8	48	19.0
	0	0.0	1	0.9	0	0.0
Total reasons	34	100.0	110	100.0	253	100.0

Within these general types, the specific reasons given are also of interest. The specific reason most frequently indicated by new

<sup>6</sup> Chi-square = 28.22, 1 d.f.,  $p < .001$ .

<sup>7</sup> Chi-square = 10.91, 1 d.f.,  $p < .001$ .

students was, "I became disinterested in the subjects for which I had enrolled", accounting for 29.4 per cent of responses. In view of the matriculation data, it may be that the disinterest followed from difficulties in coping with the intellectual demands of university courses. Apart from that item, fifteen other different specific reasons were given by the 28 respondents, so that very many factors played some part in the withdrawal of new students.

Previously enrolled students similarly gave a varied collection of seventeen specific reasons. The three most frequent were: under the Employment type, "Increased responsibility at work or increased pressure" (41.8 per cent), and "my employer was unwilling or unable to allow sufficient time off" (9.1 per cent); under the Life Circumstances type, "I moved away from Adelaide or proximity of university" (8.2 per cent). These three reasons are connected with part-time study, and the preponderance of part-time students in the withdrawing groups is therefore consistent.

One often mooted criticism of universities as a cause of student disaffection was given as a primary reason by *no* student: "the university atmosphere was too unlike the real world". Furthermore, "I found the university to be too unfriendly, impersonal, or isolating" was given by only two students. Pragmatic reasons were more important than such ethereal possibilities for the majority.

Several students indicated subsidiary reasons for their withdrawal. The new students' most frequent subsidiary reason, indicated by 17.9 per cent of respondents, was "I felt that I was not yet ready for university study". The previously enrolled students' most frequent subsidiary reasons were "commitments to own children or spouse" (18.3 per cent of respondents), and "overwhelmed by amount of study time required" (14.7 per cent of respondents). In this connection it is relevant to remark that as many as 53.2 per cent of the previously enrolled students were married.

Many of these reasons derive from temporary difficulties, especially for the previously enrolled students. It is therefore consistent that very few (1.8 per cent) stated that they intended never to re-enrol. Rather more of the new students (14.3 per cent) said that they would never re-enrol, but they too were a small minority.<sup>8</sup>

Most of the withdrawing students did not have the advantage of an experienced parent to advise on their university programme, in that 71.4 per cent of the new students and 73.4 per cent of re-enrolling students had parents with no experience of tertiary education.

<sup>8</sup> The difference between new and previously enrolled students in intention to re-enrol is significant: chi-square = 5.54, 1 d.f.,  $p < .05$ .

*Measures of emotionality:* The new students who withdrew scored about the same on the Emotional Activation scale as a comparison group of 100 first-year continuing students and a sample of 95 members of the Adelaide public tested earlier (Rump, 1968). Average scores for the three groups were 9.6, 9.0 and 9.2 respectively. It is therefore unlikely that the withdrawing students were particularly prone to emotional reactions.

This is confirmed by the results for the Anxiety scales. Control data were not available for Adelaide students on this test, so comparisons with 798 first-year students at the University of Western Australia (Sullivan, 1970) and with 502 at the University of Newcastle (Loftus, 1970) were used. Average Debilitating Anxiety scores for the withdrawing, W.A. and Newcastle students were 23.3, 25.5 and 26.4 respectively, so that the withdrawing students showed *less* anxiety than others. The groups differ significantly in this respect.<sup>9</sup> The groups did not differ significantly with respect to Facilitating Anxiety, the averages being 29.2, 28.0 and 28.3 respectively. In general, then, the evidence suggests that neither anxiety nor general emotionality played any part in the students' decisions to withdraw.

*Study habits and attitudes:* Did the withdrawing students find the independent style of work required at University difficult? This seems unlikely, since they scored slightly higher on Creative Independence (though not significantly so) than the comparison group of continuing students and the sample of members of the public. The average scores were 11.3, 10.5 and 10.8 respectively. In agreement with this conclusion, the withdrawing students were rather *more* efficient in study methods than other groups.<sup>10</sup> Table 4 shows the S.S.H.A. scale scores for the withdrawing students compared with those for University of Newcastle entrants (Loftus, 1971) and for American college students (Brown and Holtzman, 1967).

It may also be observed from Table 4 that the withdrawing students obtained a very low average score on the Education Acceptance scale.<sup>11</sup> It therefore appears that they see relatively little value in educational objectives, and may be poorly motivated to study.

*Motivation:* The withdrawing students' limited acceptance of educational goals is placed in a more general context by the results

<sup>9</sup> Using analysis of variance,  $F = 6.47$ , 2 and 1325 d.f.,  $p < .01$ .

<sup>10</sup> Withdrawing students scored significantly higher on Work Methods than Newcastle entrants:  $t = 1.96$ , 528 d.f.,  $p < .05$ .

<sup>11</sup> Withdrawing students scored significantly lower on Education Acceptance than Newcastle entrants:  $t = 2.60$ , 528 d.f.,  $p < .01$ .

TABLE 4

*Study habits and attitudes of (a) new students who withdrew without failing, compared with (b) a sample of university entrants, and (c) U.S.A. college students*

Scale	Samples		
	(a) 28 Adelaide withdrawals	(b) 502 Newcastle entrants	(c) 3,054 U.S.A. students
	Average scale scores		
Delay Avoidance	20.5	23.5	25.0
Work Methods	30.1	26.8	25.1
Teacher Approval	28.4	29.7	32.7
Education Acceptance	23.5	27.4	31.4

for the Motivation Analysis Test. Scores on this test are conventionally converted to "sten" values, such that a sten of 5.5 corresponds with the average for a standardisation group of 1,847 young American adults. On this basis, a clearly significant deviation from the norm is evident for the 28 withdrawing students if they score on average more than 6.5 or less than 4.5.<sup>12</sup>

Scales which reach these critical limits demonstrate, in order of their deviation from 5.5, low interest in a career (2.7), low superego (3.4), low assertiveness (3.5), low pugnacity (3.9), low sentiment towards the parental home (3.9), and high sex drive (7.0). Scales which did not show a significant departure from the norm were self-sentiment (4.8), narcissism (5.0), attachment to sweetheart (5.4), and fear of insecurity (5.7). It is clear that the new withdrawing students have low motivation in a number of areas relevant to academic ambitions, and their decisions to withdraw may well have stemmed from this lack of basic motivation. Their high sex drive may also have been an influence, since it encourages activities which compete with intellectual pursuits. These are, of course, group trends: some individuals manage to achieve success in both social and intellectual spheres!

The results with the M.A.T. are consistent with some previous studies. For instance, Cattell, *et al.* (1964), note that low superego sentiment and high sex drive are associated with poorer examination performance. Moreover, Hayes (1973) found that withdrawing

<sup>12</sup> Critical sten scores are calculated as follows. For a two-tail  $p < .01$ , Student's  $t = 2.576$ . Stens have a standard deviation of 2, so the corresponding critical deviation for a sample of size 28 is  $2.576 \times 2/\sqrt{28} = 0.97$ . Therefore, critical sten values are  $5.5 \pm 0.97$ , i.e., approximately 6.5 and 4.5

students (wrongly labelled "dropouts") are less likely to have clear goals which they feel they can fulfil at university. A study of first-year science students at the University of Aberdeen who failed examinations showed "lack of motivation towards the given degree course" to be a primary factor (MacKintosh, 1971). Miller (1970) reviewed the available research and concluded that "success depended on the effort students were prepared to expend on their studies" and that "there seems little point in encouraging weakly motivated students to take up costly university or college places".

### Conclusions

Students who withdraw during the first half of their first year often do so because study is more difficult or less interesting than expected, and because their motivations relevant to academic work are weak. Matriculants should be advised to consider whether they really wish to pursue study at a university, and less able entrants should be advised as to initial courses likely to be within their interests and capacities.

Previously enrolled student who withdraw usually are experiencing temporary difficulties with employment, moving residence, or family commitments, and they should be given every encouragement to continue studies when their circumstances allow. Advisory booklets for discontinuing students (both withdrawing and failing), of the kind issued by the Scottish Education Department (MacKintosh and Bassett, 1971), would be helpful.

### Acknowledgements

We are grateful to the Academic Registrar, Mr. Wesley-Smith, and to Messrs. Birks, Smith, and Wilton of the University's administration for their co-operation; to Mr. Little of the Student Counselling Service for his encouragement; and to Ms. Casey and Gregurev for clerical assistance.

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## 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,<sup>1</sup> and low predictive validity,<sup>2</sup> examinations have in recent years become the subject of growing student discontent. Organised campaigns in Australia<sup>3</sup> and overseas,<sup>4</sup> 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. Cox<sup>5</sup> 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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