

An Investigation into the Early Leaving of Examinations by Engineering Undergraduates

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Coventry University engineering undergraduates who left the 1994 summer examinations early were questioned as to why they had done so. This article describes the questionnaire used in the survey and reports on the findings. The survey covered 20 examinations, with a total of 2547 candidates and with 681 of these choosing to leave early, i.e. an early leaving rate of 27%. For a typical three-hour examination, the rate at which students left early accelerated gradually, the average being 45 min early. On average, out of every 20 early leavers, 8 did so having completed the exam, and 11 did so having tackled all they could. Only one in 20 gave other reasons for leaving early, such as feeling unwell or feeling totally demoralized with their performance. Many other findings are reported in this article. The conclusions incorporate the authors' views on the need in our modern society for all educational institutions to re-look at the whole subject of written examinations.

INTRODUCTION

MANY examination invigilators will have noticed in recent years a growing trend of students choosing to leave their examinations early. A literature survey was conducted to seek out published articles on this topic. Surprisingly, none were found even when the survey was widened to include all types of courses for all types of subjects and disciplines, and for all countries in the world. This lack of information has led the authors to conduct their own investigation, and the methods used and the results obtained are reported in this article.

The authors waited outside 20 examinations during the three-week examination period in May/June 1994 for engineering undergraduates at Coventry University. Students who left early were questioned immediately after leaving by one of the authors who completed a questionnaire for each early leaver (Figure 1). All 20 examinations were of 3 hr duration. The regulations did not permit candidates to leave within the first hour (to encourage everyone to attempt the exam and to permit latecomers entry) or within the last 15 min (to prevent disturbing those candidates who are rushing to complete the paper). Therefore, the survey of early leavers covers the period of 1 hr-2 hr 45 min into each examination.

A total of 681 students were thereby questioned as they left early from the 20 examinations. The survey covered 2547 examination sittings of candidates, the average early departure rate being 26.7%. Analysis of the 681 completed questionnaires have yielded trends of behaviour as described below.

ANALYSIS OF THE RESULTS

Figure 2 shows how the rate of early leaving varies with the duration of the examination. Very few candidates leave between 1 and 1.5 hr into the 3-hr examination, but thereafter the rate accelerates smoothly towards the cut-off 15 min before the end.

Analysis of the curve of Fig. 2 yields the information in Table 1.

The average early leaver left after 2.25 hr, i.e. 45 min before the official end of the examination. In summary, about a quarter of candidates leave early, typically 45 min early.

Figure 3 shows the reasons for leaving early. About 55% left early because they had done (and checked) all they could (category A); about 40%, because they had completed (and checked) the exam (category B); and 5% left early for other reasons, including the 2% who felt unwell and the 2% who were disillusioned with their exam performance (category C). Figure 3 also shows the distribution of these categories, as they alter during the exam period.

Those leaving the exams very early were from category A, but as an exam proceeded, more and more were of category B. Near the end of the exam, the early leavers were equally divided between the two categories A and B.

Analysis of the questionnaires revealed the detailed reasons for early leaving of the category A students. Approximately one-half admitted that they had not studied enough to prepare well for the exam and the exam was harder than they expected. One-third said the exam questions were not as they

EARLY DEPARTURE OF EXAMINATION QUESTIONNAIRE

DATE:	EXAM: AERO/AUTO/COMB/ELEC/MAN/MECH
TIME:	YEAR: I/II/III
DURATION: 3 hrs (of exam)	TIME OF INTERVIEW: (from start of exam)
MALE/FEMALE	TOTAL NUMBER OF CANDIDATES: (sitting the exam)

Q1. WHY HAVE YOU LEFT THIS EXAM EARLY?

A.1	Cannot do anymore of it. - WHY?	
a	I did not study fully for this exam	
b	Exam questions not as expected	
c	Exam harder than expected	
d	My mind has "gone"	
e	Other	
A.2	I have completed it	
A.3	I feel unwell, sick	
A.4	Disillusioned, so left	
A.5	Refused to answer	
A.6	Other reason:	

Q2. IS IT NOT WORTH CHECKING WHAT YOU HAVE DONE AND TRYING TO PICK-UP MORE MARKS?
YES/NO/DONE

Q3. ARE YOU WORRIED ABOUT LEAVING EARLY? YES/NO

Q4. DO YOU EXPECT TO PASS THIS EXAM?
YES/NO/MAYBE

Fig. 1. The questionnaire.

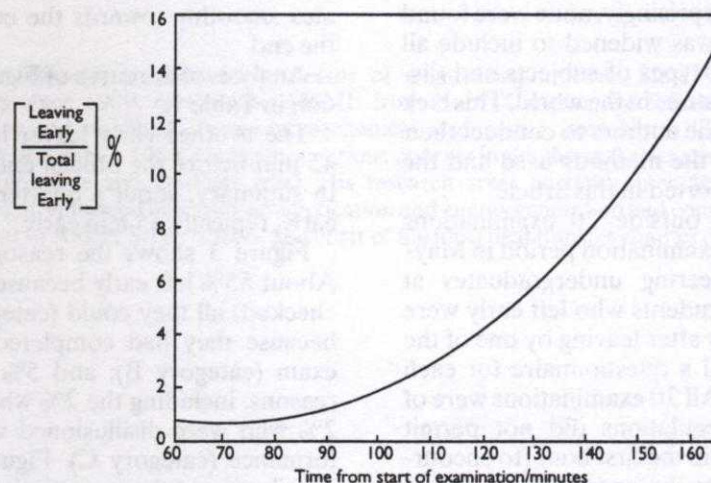


Fig. 2. How the early leaving rate varies throughout the exam duration.

expected, indicating that they were hoping for certain topics to come up. Only one-tenth said their 'mind had gone', i.e. they were mentally exhausted. Combining this last group with the 'feeling unwell' category, gives 1 in 13 early leavers leaving early due to feeling mentally or physically unwell, i.e. 1 in 50 examination candidates.

The responses to question 2 of the questionnaire

were unanimous. Almost everyone replied that they had checked their answers before leaving early.

The replies to questions 3 and 4 are shown in Figs 4 and 5 respectively.

About three-quarters of the early leavers were not worried about leaving early, and most said they expected to pass the exam even though they had left

Table 1. The approximate proportions of early leavers for various time periods throughout a 3-hour exam

PERIOD FROM START OF EXAM (IN HOURS)	1 - 1½ hrs	1½ - 2 hrs	2 - 2½ hrs	2½ - ¾ hrs
% LEAVING OF THE TOTAL EARLY LEAVERS	8%	12%	40%	40%
% LEAVING OF THE TOTAL EXAM CANDIDATES	2%	3%	10%	10%

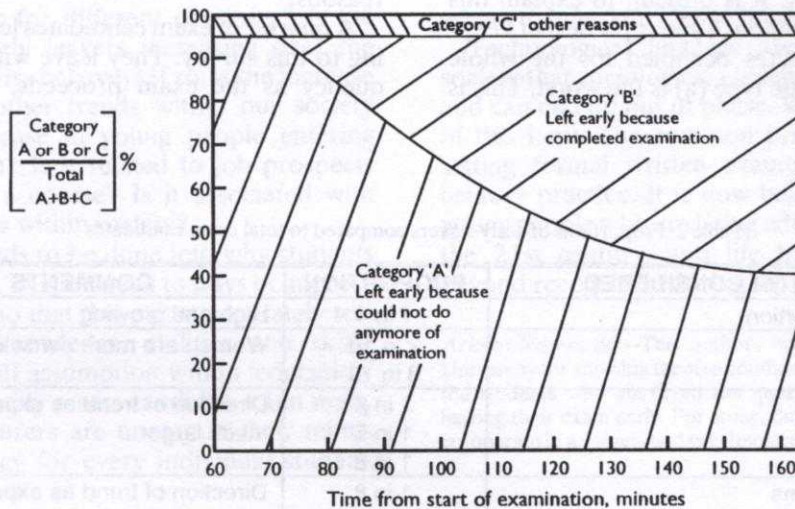


Fig. 3. Reasons given for leaving examination early.

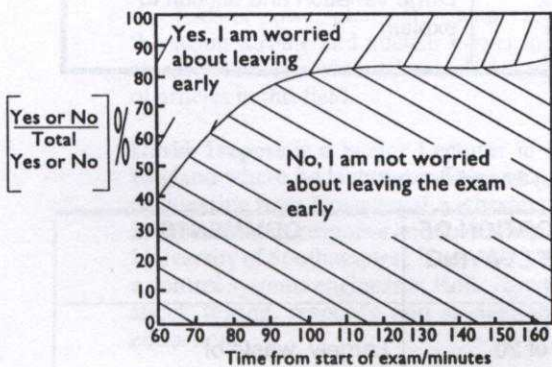


Fig. 4. Students' worries about expectations of passing or failing.

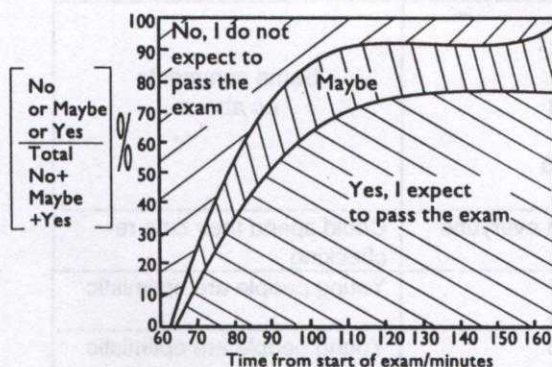


Fig. 5. Students leaving the exam early.

early. Figures 4 and 5 also show how their opinions varied as the examination proceeded towards its finish, with their opinions becoming more and more optimistic. Inspection of the questionnaires also showed that those students who replied that they were not worried about leaving early also replied they expected to pass the exam. Similarly, students who left early replying that they were worried also said they expected to fail the exam. Unfortunately, it was not possible to correlate the opinions expressed in Figs 4 and 5 with how the students actually performed in the exams, but the students' opinions may well have been too optimistic.

Analysis of the questionnaires yielded other trends as summarized below, many of which show surprisingly very large variations:

1. Although on average about a quarter of students left their exams early, this rate varied considerably for the different undergraduate years. As expected, rates were highest for year I, and lowest for the final year. About a half left early in year I; about 20% in Year II, and about 12.5% in the final year exams.
2. Rates of leaving exams early for afternoon exams were about three times higher than for morning exams—a very large difference.
3. Rates increased roughly linearly during the 3-week exam period, by a factor of three. Thus

there was a considerable variation with this variable.

4. Females were less likely to leave exams early: 2/10 women left early compared with 3/10 men.
5. Early departure rates varied with the type of exam. Considering three types of (a) predominantly descriptive, (b) predominantly analytical/calculations, and (c) a mixture of the two above types, the early-leaving rates were in the ratio of 5:3:2 respectively. It is difficult to explain this considerable variation. Type (c) is best at keeping exam candidates occupied for the whole exam period, while type (a) is the worst. This is

an area where more detailed investigation could be of benefit.

Tables 2 and 3 summarize the main findings.

CONCLUSIONS

The results presented in this report are trends only. It must be borne in mind that each case is an individual, leaving an exam early for individualistic reasons.

A quarter of exam candidates leave early according to this survey. They leave with increasing frequency as the exam proceeds, and on average

Table 2. Proportions of early leavers compared to total exam candidates

FACTOR CONSIDERED	PROPORTION	COMMENTS
Overall proportion	1 in 4	High and growing
For women	2 in 10	Women are more conscientious
For men	3 in 10	
For Year I	1 in 2	Direction of trend as expected, but much larger
For Year II	1 in 5	
For Year III	1 in 8	
Morning exams	1 in 8	Direction of trend as expected, but much larger
Afternoon exams	3 in 8	
Week 1 of exam period	1 in 8	Direction of trend as expected, but much larger
Week 2 of exam period	2 in 8	
Week 3 of exam period	3 in 8	
Descriptive exams	5 in 12	Large variation and difficult to explain
Analytical/calculation exams	1 in 4	
Mixture of the two	1 in 6	

Table 3. Summary of the views of the early leavers

FACTOR CONSIDERED	PROPORTION OF THOSE LEAVING EARLY	COMMENTS
Reasons for leaving early:		Largely, waste of opportunities to maximise exam marks
(a) Done and checked all that they could attempt.	11 out of 20	
(b) Finished and checked answers.	8 out of 20	
(c) Other reasons, including feeling unwell, disillusioned	1 out of 20	
Of those in (a) above:		Same comments as above
(i) Admitting they did not study hard enough.	1 in 2	
(ii) Saying the questions were not as expected.	1 in 3	
(iii) Other reasons including "mind had gone".	1 in 10	
Those who said they had checked their answers	Almost everyone	Could spend their time re-checking
Worried about leaving early	1 in 4	Young people are optimistic
Not worried about leaving early	3 in 4	
Expecting to pass exam	2 in 3	Young people are optimistic
Expecting to fail	1 in 6	
Unsure if passed or failed	1 in 6	

about 45 min early during a typical 3-hr exam. Although a few leave early for good reasons (e.g. having completed the exam very well), the vast majority need to improve their study and exam techniques, particularly with regards to making the most use of the exam time available. Many are not concerned that they are not taking full opportunities to maximize their exam performance.

Many aspects of this subject remain to be investigated. Are the findings presented here typical for different types of educational institutions; for different subjects; for different countries? Is the proportion of early leavers increasing over the years (as the authors believe)? If so, is the increase connected with other trends within our society such as the increase in young people entering tertiary education? Is it related to job prospects after completing a course? Is it associated with behavioural trends within society?

More work needs to be done into why students leave exams early. This will lead to ways of improving exam papers so that they more accurately test the candidates' knowledge, abilities and skills. There is an overall assumption within 'education' that exams accurately assess candidates, but many teachers and lecturers are uneasy in their minds about the accuracy for every individual student.

Whatever method of assessment is chosen (e.g. closed-book exams, open-book exams, phase tests, various types of coursework and homework, laboratory write-ups) there are advantages and disadvantages. A mixture of methods will more likely yield improved accuracy of assessment. In the authors' opinions, this mixture should continue to include formal examinations. However, more research should be conducted into how to set exams suitable for the modern generation of youth in our modern society with computers giving easy access to huge knowledge banks.

Technological changes are so rapid in our society that sociological changes cannot keep pace and can end up out of phase. We have an example of this here. The common practice of testing by setting formal written examinations is a 20th-century practice. It is now being used to test our young people who are being educated for society in the 21st century, and life has changed almost beyond recognition during the past hundred years.

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