

# Student Performance on an 'Engineering with French or German' Degree Course\*

K. A. TUBMAN†

Department of Combined Engineering, Coventry Polytechnic, Coventry, CV1 5FB. U.K.

*This paper describes student performance and initial career progress of graduates from an 'engineering with French or German' course. This is an option within the wider credit-modular full-time CNA A. B.Eng degree and honours degree course in Combined Engineering at Coventry Polytechnic. The course has been in operation since 1973, but this survey is restricted to graduates over the last ten years. The 'engineering with French or German' option was designed for careers as sales and marketing engineers within the EEC, and it involves spending one year studying engineering abroad on an exchange scheme.*

*Reliable information on career progress was obtained for 47 of the 80 graduates from the language option. Twenty-one of these 47 graduates have used their foreign language ability in their initial careers, and 15 of these have obtained first appointments abroad. All the graduates thought that studying a foreign language with engineering was very beneficial, regarding character and career development.*

## INTRODUCTION

THIS paper describes student performance and initial career progress of graduates from an 'engineering with French or German' course. This is an option within the wider credit-modular full-time CNA A B.Eng. degree and honours degree course in Combined Engineering at Coventry Polytechnic. The survey covers the ten-year period of graduation, 1980-89.

The Combined Engineering course has been described elsewhere (e.g. [1] and [2]) and only those aspects relevant to the 'engineering with French or German' option are detailed below. The course has a common first year in electrical, mechanical and manufacturing engineering. Students then choose to specialize in one discipline or in a hybrid combination in their second and third (final) years. The annual number of graduands over the ten years 1980-89 has averaged 102. Students can choose to study French or German each year instead of one engineering subject. About one-quarter of the students took this option in their first year, but only 80 (about one in 13) continued to final-year level. This is partly because students drop the language option as the technical studies become harder; partly because some find they have little natural aptitude for learning French or German; and partly because studying at final-year level involves having studied engineering for one-year in France or Germany on an exchange scheme. For these students, the course is of four years duration. The Department has reciprocal exchange agreements with Fachhochschulen of Osnabrück and Konstanz

in Germany, and the Université Claude Bernard in Lyon, Université Grenoble and Université St. Etienne in France. The exchanges are supported by EC funds and by ERASMUS (The European Community Action Scheme for the Mobility of University Students).

## METHODS OF CONDUCTING THE SURVEY

Four sources of information were used to survey student performance and subsequent initial career progress of the 80 graduates of interest. These were inspection of the graduates departmental record files and their returns to the Polytechnic Careers and Appointments Service; re-inspection of their returns to a previous questionnaire sent out to all Combined Engineering graduates [2]; and direct telephone calls to their parental home.

The survey yielded reliable information on career progress after graduation for 47 of the 80 graduates (Table 1) and the results summarized in the next section pertain to these 47 graduates.

Table 1. Number of graduates who completed the 'Engineering with French or German' option

Period 1980-1989	French option	German option	Total
Number of graduates who completed the option	41	39	80
Reliable information on career progress obtained for:	23	24	47

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† K. A. Tubman is Senior Lecturer.



## RESULTS OF THE SURVEY

### Degree performance

Table 2 compares the degree performances of the 47 graduates with those from the whole Combined Engineering Course (1023 graduates) over the period 1980-89.

Table 2 shows that the graduates who followed the 'engineering with French or German' option did significantly better than the average from the whole course. There are several possible explanations. Perhaps they were more able, but a more likely explanation is that they were better motivated and more mature after their experiences in France or Germany. Hence, they would be better prepared for their final year study at the Polytechnic.

Table 2. Degree performances

% graduating with:	For the 47 graduates	For the 1023 graduates
First Class Honours	10%	5%
Upper Second Honours	22%	17%
Lower Second Honours	31%	26%
Third Class Honours	8%	12%
Unclassified Degree	29%	40%

### Subsequent initial career progress

Table 3 lists the subsequent early careers of the 47 graduates of the survey.

Twenty-one of these graduates are using their foreign language ability directly in their early careers (15 of them very much so, as they are living and working abroad). Most of the remaining 26 graduates expressed their intentions to use their language skills later in their careers after completing a graduate traineeship in U.K. industry, as a pre-requisite to Chartered Engineering status. Several of these 26 graduates have used their knowledge of French or German in a minor way at work when acting as guides and translators for foreign visitors of their company, and for translating foreign correspondence.

Table 3. Initial career profiles

Using foreign languages		Not using foreign languages	
	Number		Number
Living and working in France or Germany		Conventional graduates trainees or first appointments in U.K.	17
(i) as engineers	11		
(ii) not as engineers	3	Studying for Higher Degrees (2 PhD, 5 MSc)	7
Emigrating to French-speaking Canada	1	School teachers of technical subjects	2
Sales/Marketing engineers in U.K. Industry for EEC markets	6		
Totals	21		26

### The graduates' views on studying engineering with a language

- (i) All the graduates agreed that studying the language option was very worthwhile. It was not considered an easy option but did act as a good contrast to the technical engineering subjects. There were no conflicts of interest but some minor criticisms were expressed. In particular, the second-year standard was not adequate for the year abroad and this led to the initial months abroad being difficult.
- (ii) The year abroad was a very valuable experience. It 'broadened the mind', developed personalities and characters, and substantially widened career and social opportunities. Many expressed the view that living abroad was the only real way to learn the language and culture of that foreign country. One graduate's view was 'It doubled the value of my degree'. Another has married a French lady and now lives in France. A third graduate has recently helped his parents buy a house in France.

Some adverse comments were expressed. Students tended to have settling-in problems, particularly concerning their limited language ability and the differences in teaching methods and content of the courses at the exchange institutions. For the 12 who gained 'double-awards' (i.e. a Dipl.Ing (German) or D.U.T. (French), as well as a B.Eng.), the year's study abroad was long and hard. Finally, some students experienced financial problems due to the higher costs of living in France and Germany and the extra travel costs incurred during the year abroad.

## CONCLUSIONS

1. An 'engineering with French or German' degree course has been operating successfully at Coventry Polytechnic since 1973. Although not popular in its early years, student enrolment has increased considerably over the last few years. Several factors have contributed to this increased interest:



- U.K.s increasing involvement within the EEC; students rightly perceived enhanced career opportunities within Europe; school-leaver trends to delay specialization and take a mix of GCA 'A' levels (e.g. mathematics, a science and a foreign language); and finally improvements in the course at the Polytechnic, especially since 1980 when the one-year exchange schemes were introduced with the partner institutions in France and Germany.
- The results of this survey show that studying engineering with a foreign language, together with a one-year exchange scheme, gives a graduate enhanced career opportunities. He or she may, upon graduation, follow an orthodox graduate traineeship or first appointment in U.K. industry; or may choose a sales/marketing career in U.K. industry working in the European market; or may seek a first appointment abroad.

Furthermore, many other benefits were realized (especially from the experience of the year abroad) concerning developing character and personality, learning the culture of another country, becoming more mature and independent, becoming more travel-minded and out-going, etc.

- Based on the experience of operating the course described in this paper, the Department of Combined Engineering at Coventry Polytechnic has recently introduced a new course, a BSc in 'European Business and Technology'. This new course is designed to integrate more closely engineering with a foreign language and with European business studies. The first year enrolment on this new course of 66 students is very promising.

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## REFERENCES

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