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ABSTRACT

This publication from Australia repo s on an investigation directed at possible explanations of why students in the state of Victoria remain to complete secondary school, and why schools themselves vary in their capacity to retain students to year 12. Chapter 1 provides perspectives on this topic from past research and identifies three domains of school influence on student retention as the focus of the study: student attitudes, curriculum, and organization. Chapter 2 describes the methodology, which consisted of complementary broad- and narrow-based approaches: identification of differences between schools as a whole, selection of 16 schools for further study, qualitative methods, and questionnaires. Chapter 3 presents findings on differences between schools, including trends in average school retention rates, factors associated with differences, and patterns of change between 1982 and 1983. Chapter 4 focuses on characteristics of the 16 schools selected for further study, and the results of this intensive study are reported in chapters 5 and 6. Chapter 7 reports findings from interviews and followup studies with former students, parents, and teachers at these schools. Chapter 8 summarizes findings of the study as a whole, including differences between schools, the 16 schools, students' perspectives, factors influencing the intention to stay in school, the role of individual characteristics in this intention, and implications for future research and policymaking. (TE)

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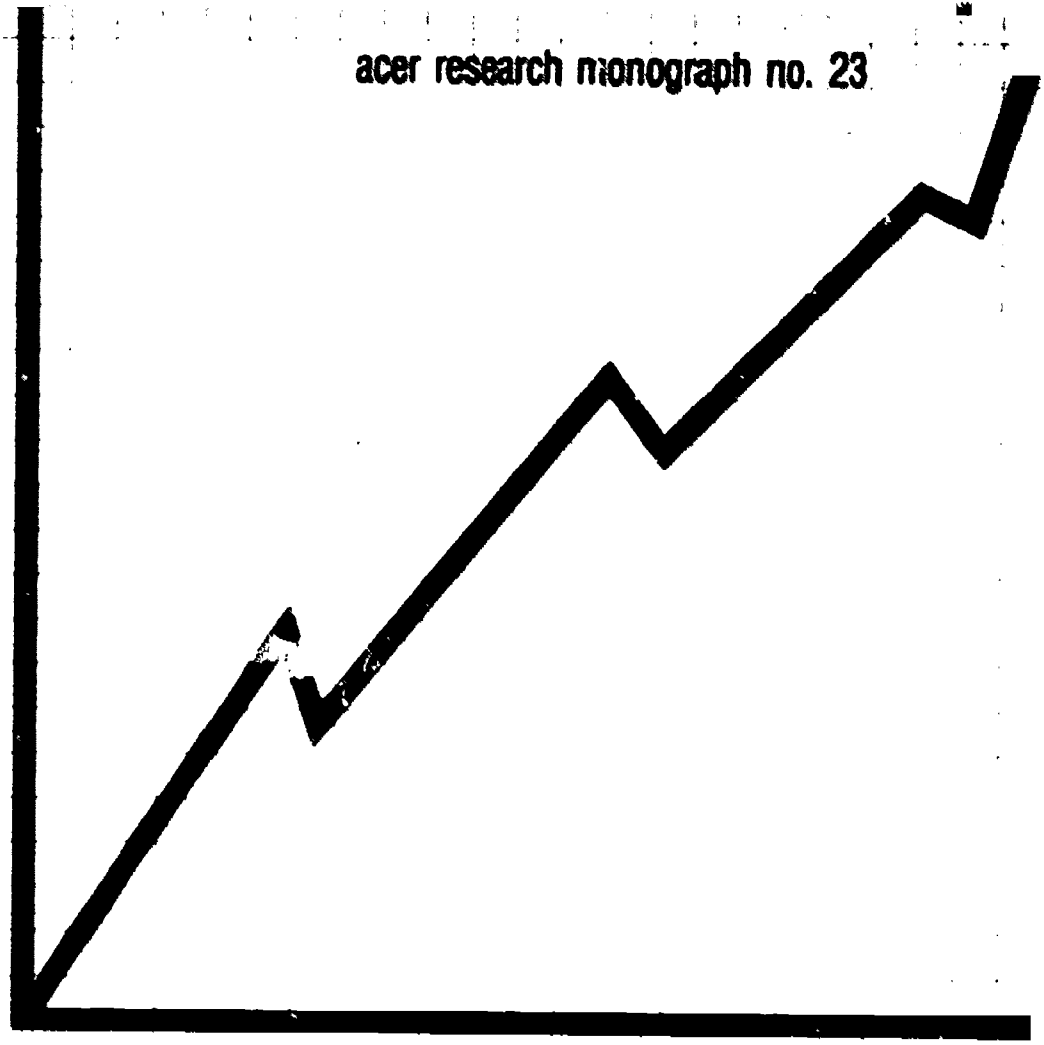

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ACER Research Monograph No. 23

STAYING AT HIGH SCHOOL IN VICTORIA

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This study was undertaken in co-operation with the Education Department of Victoria. Two members of staff of the Policy Planning Unit were involved in the study to a considerable degree. Rodney Reed and Ewart Anderson contributed through liaising, interviewing, and collecting data in four of the schools in the study. They wrote the first reports on those schools and contributed suggestions for the overall format. Without their contribution the study would have been much smaller in scope.

Other members of the Education Department also provided assistance. Ian Allen as Executive Director (Educational Programs) initiated the study and helped in the formulation of our initial plans. Phil Creed and Laurence Money provided us with statistical data from department records. John Taylor, together with the other people mentioned above, made a number of valuable suggestions about the study.

The principals, staff, and students in the sixteen schools were always helpful in providing access, information, and insightful perspectives on processes in their schools. When we provided information about the schools, the principals and staff were keen to follow up details with us and offer interpretations.

A number of ACER colleagues also helped us in various ways. Margaret Taylor typed the report and the other documents associated with the study. Jeff Clancy supplied helpful advice when data were being analysed. The contribution of those people and others at ACER is gratefully acknowledged. In addition Mike Plunkett and his staff at the Swinburne Computer Centre facilitated the analyses; for that help we are grateful.

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March 1984

CHAPTER 1

INTRODUCTION

Despite the recent attention given to retention rates in Australian schools, the comparisons made with the retention rates of other industrialized nations, and the fluctuations in recent years, particularly in the different rates for males and females, little is known about the underlying reasons for staying at school. This publication reports on an investigation directed at some possible explanations of why students remain to complete secondary school, and why schools themselves vary in this capacity to retain students to Year 12.

Some Perspectives on Retention Rates and Staying at School

Retention rates vary between schools. Such variations are probably due in part to differences between schools in the characteristics which students bring to school (about which the school can do little) and possibly also due to characteristic of the programs which schools themselves provide for students. The major purpose of this report is not to document further the 'out-of-school factors' which affect school retention rate (at the aggregate level) and the decision to remain at school (at the individual level) but to explore 'school factors' which may influence these outcomes. As a preliminary we examine the results of several recent local empirical studies which bear upon these issues.

Out-of-School Factors

From previous research, two factors emerge as positively associated with a decision to remain at school: socioeconomic status and being the child of a migrant from a non-English-speaking background. In addition, there is a suggestion that fluctuations have occurred in the patterns of sex differences in retention and that location (metropolitan or rural) may be important in Victoria if not in other States.

Socioeconomic background. Both Williams, Clancy, Batten, and Girling-Butcher (1980) and Rosier (1978) found that higher socioeconomic status was linked with staying at school. The values of the path coefficients which they reported were 0.16 and 0.23 respectively. In a subsequent study, Williams et al. (1981) found a similar relationship between socioeconomic status and the stated intention to proceed to Year 12. Rosier noted that the retentivity beyond the minimum leaving age was 66 per cent for students from the lower third of the socioeconomic distribution compared with 78 per cent and 83 per cent from the middle and upper thirds.

The above studies used parent's occupation as a measure of socioeconomic status.

Similar results have been reported from studies using family income as an indicator of socioeconomic background (Burke, 1983; Miller, 1983). After an analysis of participation rates based on 1976 Census data for local government areas in Victoria and New South Wales, Miller reported that average family income was associated with the level of school participation. Burke (1983) made use of a similar data base, but incorporated a different range of variables. That analysis noted that average family income was associated with retention rates for the area. As both of these studies were based on aggregated units of analysis, the results probably indicate a general association between the economic level of the area and retentivity rather than a specific link between family income and that variable.

The results of these studies do not indicate unambiguously the ways in which socioeconomic background might influence participation in schooling. Several possibilities could be considered. First, a favourable family background could influence participation in schooling in a directly economic way by improving the capacity of the family to provide financial support for a full-time student. Secondly, the influence of family background could operate through parental expectations. That is, higher socioeconomic status could be associated with an environment which emphasizes more strongly the value of staying at school. Power (1983) suggested that socioeducational factors (amount of parent's education), rather than socioeconomic factors, are related to retention at school through the parental encouragement and expectations which are generated at home. The analysis by Power is informative because it included measures of socioeconomic status, socioeducational level, and parental encouragement, so as to examine the relative effects of each. Thirdly, the influence of family background could operate through the environment in which the student lived rather than through the family as an isolated unit. In other words, measures of socioeconomic background may be associated with the extent of provision of a range of community facilities, and the expectations held for young people in the surrounding environment.

It is possible that any or all of these paths might contribute to explanation of the link between socioeconomic background and staying at school. For the present study, it was not proposed to unravel these possibilities. Rather it was seen as important to control for socioeconomic background in the investigation of school factors related to retention.

Ethnicity. Being of non-English-speaking background has been reported to be positively associated with staying on at school. Williams et al. (1981) reported a positive association between ethnicity and an intention to complete Year 12 and a negative association between ethnicity and an intention to leave at the minimum age. Roughly translated, these results correspond to 16 per cent more migrant children from non-English-speaking backgrounds than children of Australian-born parents stating an intention to complete Year 12, and 11 per cent fewer migrant children stating an

intention to leave school at the minimum age. Williams et al. (1980) suggested an even stronger relationship between being the child of a non-English migrant and staying longer at school. Ainley and Clancy (1983) noted that the children of non-English-born migrants were less likely to undertake an apprenticeship than their peers who had Australian-born parents and were more likely to remain at school. Taft (1975) argued from a study conducted in Victoria that the educational aspirations of students of non-English-speaking origin were higher than those of Australian origin, that a higher proportion of such students completed Year 12 at secondary school, and that of those who completed Year 12 a higher proportion continued to post-secondary education. Taft also noted that there were some differences between national groups, and between males and females of different groups. There is, from previous research, consistent evidence of high aspirations to educational attainment among many groups of immigrants. Since this is contrary to some sets of beliefs, it is worth noting and is an important factor to consider in examining school influence on retention rates.

Sex differences. Retention rates for males and females have fluctuated over recent years. Taft (1975), using data from 1970, found a small difference in favour of males in terms of the percentage of students who aspired to remain at school to Year 12. Williams et al. (1980), using data from a cohort of students who were 17 years old in 1978, found no significant nett differences between males and females in actual staying at school. However, in a parallel study of a younger cohort who were 15 years old in 1979, Williams et al. (1981) noted differences between males and females in their stated intention to remain at school to complete Year 12. Other things equal, more females than males stated an intention to complete Year 12. This corresponds to the observed change in the relative retention rates for males and females around 1980. At that time the retention rate for females rose relative to that for males (CDEYA, 1983; Karmel, 1983). However, in 1983 it appears that the increase in retention rate which occurred generally was greater for males than females. For Victoria there was, from April 1982 to April 1983, an 8.2 per cent increase in secondary school enrolments among 15- to 17-year-old males and a 3.6 per cent increase for females (CTEC, 1983).

Poole (1983) has argued that males and females differ in the type of educational and vocational aspirations which they hold as a result of socialization processes. Moreover these differences do not seem to be associated with measured differences in personality or ability. Hence one possible explanation for fluctuations in the relative retention for males and females could reside in the interaction between differential vocational aspirations, and changes in job opportunities which affected some types of jobs at different times from others. More studies are needed of the ways in which different segments of the labour market change and the ways in which those changes within the total labour market influence employment options for young people.

Location. Williams et al. (1980) did not find a significant association between leaving school and location over Australia. There was some evidence of differences between city and country schools in retention in some States such as Victoria, though the differences were not as large as has sometimes been supposed (Rosier, 1978). Some evidence also exists that the range of factors impinging on student decisions to remain at school differ between country and city schools (Dunnell, 1980).

Economic conditions. The aspect of the economic environment which would be expected to affect most directly the decisions of young people to stay at school is job opportunities. At face value, there would appear to be grounds for assuming that lack of job opportunities could be strongly linked to increased retention. Between February 1982 and February 1983, during which time there was a rise in teenage unemployment, there was also a substantial decline in employment for teenage males, a less substantial decline in employment for teenage females, and a reduction in the number of apprenticeships (see ABS, Cat. no. 4217.0). Not only did the decline in jobs correspond to increased school participation, but the distribution of the decline in jobs between males and females matched inversely the relative rises in school participation rates. The argument appears persuasive. However, a little caution is needed in assuming this to be the sole cause of increased participation. Over the seventies it did not always appear that there was a close association between job opportunities and retention in secondary school.

Notwithstanding the probable association between job opportunties and participation or retention rates for a whole state system, it seems less likely that different local conditions would account for differences between schools in retention rate. A recent cross-sectional study, based on local government areas in Victoria and New South Wales, revealed only a modest relationship between school participation and the local level of unemployment (Miller, 1983). One explanation for the effect being smaller than might be expected could be that, at least in metropolitan areas, employment is sought in a wider area. Another, offered by Miller, is that lack of jobs for school leavers would be associated with higher levels of adult unemployment and therefore lower family income. In general, this is an area in which research is sparse.

A second aspect of the economic environment which could have impinged on students' decisions to remain at school was the availability of financial assistance. The major program of this type for students in Years 11 and 12 was the Secondary Allowance Scheme operated by the Commonwealth Government (Office of Youth Affairs, 1984). From 1982 to 1983 the number of Year 11 and Year 12 students receiving assistance under this scheme across Australia nearly doubled from 28 000 to 53 000. In total, nearly 20 per cent of senior students were granted assistance under the scheme. At the same time the value of the allowance increased. It was not an issue about which data were collected in the present study. Its impact could be expected to have diminished the

association between retention rate and socioeconomic level but not to have had a marked effect on differences between schools after controls were introduced for differences in socioeconomic level.

School Factors

There is little direct evidence that school factors such as curriculum and organization are related to staying at school (largely, because few studies have been designed to examine school factors in detail). However, there is some evidence to suggest that school organization and curriculum might influence whether students stay at school. First, there are differences between States and systems which remain after controlling for the influence of other factors (see Williams et al., 1980, 1981). State differences probably reflect differences in labour market conditions (see Burke, 1983) but they might also reflect differences that might exist, for instance, in school programs. Differences between systems (government and non-government) probably largely reflect the different aspirations of parents who enrol their children at school, but those differences could also be affected by the expectations created by the school.

Secondly, there are, in several of the studies, associations between such personal factors as perceived ability (even after allowing for the effect of actual differences in achievement), educational aspirations, and the supportiveness of teachers. For example, Rosier (1978) reported that educational aspirations and expected level of education were strongly associated with the decision to leave school. Even though this appears to be tautological, it does suggest that thought leads to action and it suggests that school experiences might influence the decision to stay at school. As an additional example, Williams et al. (1981) reported that perceived ability (nett of the effects of actual differences in achievement) was positively associated with an intention to stay at school and that teacher support was related to the decision to stay at school. A reasonable hypothesis might be that some aspects of school programs and organization which shaped these perceptions could result in more students remaining longer at school.

Thirdly, even though Williams et al. (1980) reported that most of those who stayed at school to Year 12 gave reasons extrinsic to the school - for example, higher qualifications (76 per cent), get a better job (47 per cent) - nearly 22 per cent indicated a reason which was intrinsic ('I like it'). That raises the possibility that factors which shape student perceptions of the school environment might thereby influence retention rates. Wright and Headlam (1976) gave evidence of some of the factors which young people felt might contribute to satisfaction with school. These included the opportunity to study subjects that were linked to their present or anticipated experience ('the real world'), experiencing relationships with staff which were personal rather than impersonal, an emphasis on co-operation rather than competition, and a system of rules appropriate to young adults. They noted that those who left before Year 11 expressed

greater dissatisfaction with these aspects of school life than those who stayed. It remains a question to be tested as to whether differences between schools in curriculum and organization are associated with differences in student responses to school.

Implications for the Present Study

The factors investigated in the present study were grounded in the notion that young people would remain at school if they believed that school was a satisfying place in terms of their immediate experience (school is enjoyable) and if they believed that in the long term there were benefits to be gained which schools offered (education is a personal investment) - at least in comparison with the alternatives available. In focusing on these groups of factors, the responses of students mentioned above provided a guide. The notion of utility suggested an examination of curriculum, while the notion of satisfaction suggested an analysis of student attitudes to school and factors which might shape those attitudes. In the research already cited, aspects of student attitudes which were reported to influence the decision to remain at school included educational aspirations, perceived ability, and the level of teacher supportiveness. It seemed reasonable to view educational aspirations as being partly related to the perceived benefits gained by staying at school (personal investment). Equally, it seemed reasonable to view perceived ability and teacher supportiveness as contributing to a view of school as a satisfying experience (if you don't feel you are capable of doing what is required, you won't feel very satisfied).

Two further explanatory comments are warranted. First, studies of student perceptions of the Quality of School Life by Batten and Girling-Butcher (1981) suggested that differences between schools in this area were more likely to be associated with the nature of the interactions between students and teachers than with the manifestations of particular forms of curriculum organization. A similar result was found in senior colleges of the Australian Capital Territory by Anderson, Saltet and Vervoorn (1980), though those authors noted that the role of school organizational and curriculum structures could also be important. That observation leads one to ask whether some aspects of school structure (either related to curriculum or decision making) might encourage the types of interaction which are seen as favourable. Research by Miskel and McDonald (1982) suggested that a high level of interaction between teachers and co-operation in teaching were associated with teacher satisfaction. It seemed worth asking, therefore, whether the school program was seen as co-ordinated rather than segmented and whether such organizational factors influenced student views of school. Secondly, the growth of enrolments in equivalent courses in technical and further education (such as the Tertiary Orientation Program) could hold implications for post-compulsory education in high schools. Such growth could be explained in terms of

the vocational orientation of the courses (utility) or the less custodial, more adult environment of the institutions (satisfaction). However, such an interpretation needs to take into account the contrary experience of the two school systems in Australia which operate secondary colleges or senior high schools in Years 11 and 12. In the Australian Capital Territory in 1982, the retention rate from the first to final year of secondary education was 74 per cent for government schools. By contrast for Tasmania, the corresponding figure for government schools was 19 per cent. For Australian government schools overall, 30 per cent of students were retained from the first to final year of secondary education.

The Propositions Investigated

In the early sections of this chapter attention was drawn to several factors which could influence school retention rates. These factors were separated into two groups. The first group, designated as out-of-school factors, was of interest because allowance needed to be made for those effects when examining the impact of school factors, and because of the possibility that the social context may have influenced differentially the impact of various school factors. The second group was designated as school factors, and referred to school policies in curriculum and organization which might have related to retention at school. It was this second group which provided the main focus for the study. Within this group of school factors, there were three major domains of potential influence on which attention was focused: student attitudes, curriculum, and organization.

Student Attitudes

One of the propositions tested in the study was that students would be more likely to remain at school if they found school to be a satisfying experience. In other words, it was expected that differences in student perceptions of the quality of school life would be associated with differences in retention rate. Within this general issue, there remains the question of which aspects of school life might be associated with staying at school. Hence, a differentiated approach to student attitudes based on a model of schooling arising from societal expectations of schools was used (Williams and Batten, 1981). This is elaborated in Chapter 2.

In addition to considering student attitudes to school, it seemed likely from the research reviewed in the present chapter that student perceptions of their own academic ability might be a possible influence on a decision to remain at school. Thus student perceptions of ability were considered as a potential influence on remaining at school.

Our interest in student attitudes was twofold. First, we wanted to investigate the extent to which positive attitudes might be associated with staying at school. Secondly,

we wanted to know to what extent differences in school policies might be associated with different patterns of student attitudes.

Curriculum Differences

In this area, it seemed important to investigate the extent to which differences in the type of curriculum at Years 11 and 12 were associated with differences in school retention rates. On the one hand, proponents of alternative forms of study in the senior school have argued that those courses catered for a wider group of students and were seen as useful by those students. According to this argument, one might expect higher retention in schools which offered those courses. On the other hand, Power (1983) suggested that, in South Australia, schools with high retention rates tended to be schools with an academic orientation.

In examining differences in curriculum, it needs to be remembered that the type of curriculum offered at the senior levels may reflect the values and priorities of the school in a much wider sense. Observed differences which are associated with differences in curriculum may result from this broader influence rather than from the curriculum as such. From the student's point of view, it may be that the prior curriculum experience of Year 10 students could influence their decision to stay or leave, as much as the prospective curriculum at the senior level.

School Organization

School organization was of interest to the present study in two ways. First, it was postulated that decisions about continuing at school to the post-compulsory years would be shaped by experiences in the compulsory school years. It seemed worth investigating whether students were more likely to remain at school if the program was coherent across year levels and within year levels. Program co-ordination was an important aspect of school organization for the study and it was expected to be related to the intensity of work interdependence among teachers.

Secondly, it was considered relevant to probe whether the environment provided in Years 11 and 12 influenced either the attitudes of students in those year levels, or the propensity of students to remain at school. In line with studies made of senior colleges in the Australian Capital Territory, the aspect of the school environment focused upon was the extent to which it was less custodial than has been the case in high schools.

The Study and The Report

To investigate these issues in relation to school retention, a mixture of qualitative and quantitative methods was used in a complementary way (see Cook and Reichardt, 1979). First, official data on retention rates and the characteristics of schools were analysed in

order to obtain a broad picture of retention in Victorian secondary schools. These analyses provided important information about patterns of, and influences on, school retention. In addition they enabled the selection of a smaller group of sixteen schools for more intense study. Secondly, in the smaller group of schools, qualitative methods based on interviews and the examination of documents were used to find out about the operation of the schools, the origin of present policies, and the reactions of participants to those policies. Thirdly, in the sixteen schools a number of questionnaires were administered to selected groups (Year 10 students, Year 12 students, teachers, parents, and former students) and the data analysed by a range of quantitative methods. The questionnaires provided information from a range of people which would not have been possible with qualitative methods alone. In practice the separation of the qualitative methods and the questionnaire methods was not rigid. Information from the questionnaires formed part of the data from which the descriptions of school policy and practice were built. Conversely, information about the curriculum gathered during the school visits was used in some of the statistical analysis. By using both quantitative and qualitative approaches to the study of schools, there was better provision for checking the validity of data.

The organization of the report reflects this general approach to the study. Chapter 2 contains further detail about the methods used. Chapter 3 contains the results of some analyses of data from official records over a five-year period. It is concerned with the extent of differences in retention between schools and factors associated with those differences. Chapter 4 describes the basis for the selection of the sixteen schools in the study and outlines some of the characteristics of those schools. Chapter 5 considers the plans and intentions of students who were in Year 10 in 1983 and examines the personal and school influences which seem to be associated with an intention to remain at school. It also examines the views of students who were enrolled in Year 12 during 1983 in terms of their reasons for remaining at school to Year 12 and their responses to the environment they experienced at Year 12. The qualitative data which were gathered in order to describe and discuss practices related to retention in the sixteen schools form the basis for Chapter 6. In that chapter, the perceptions derived from the school visits are used to draw inferences about the ways in which school factors might influence retention rates. Greater detail about each school has been provided in Appendixes III, IV, and V. In Chapter 7 the views of parents, teachers, and former students are considered from the results of questionnaires administered to those groups. The final chapter, provides a summary of the report and the general conclusion which can be drawn from the study.

CHAPTER 2

CONDUCTING THE STUDY

Several approaches and sources of data were used in the present study. Each of the approaches was intended to look at factors associated with differences between schools in retention rates and at factors which were associated with the decisions of students to remain at school to Year 12. Part of the study was based on the quantitative analysis of data drawn from official records for all secondary schools, and part of the study was based on the complementary application of qualitative and quantitative methods in a small group of schools. This chapter provides an outline of the methods used in each facet of the overall study.

Differences between Schools: Official Records

The first part of the study was concerned with an analysis of the variation between high schools in apparent retention rates and the extent to which those apparent retention rates were associated with social characteristics of the school population and some broad characteristics of the school itself. It was also a necessary precursor to the selection of schools for further study. In general it was concerned with high schools, though brief mention was made of retention rates in technical schools.

In Chapter 1 it was suggested that retention rates could be influenced by the socioeconomic level of the school area (an aggregate level analogue of socioeconomic status), and by the percentage of students of non-English-speaking background in the school. In the course of examining the data, it became apparent that there were residual differences between metropolitan schools consistent with some other studies conducted within Victoria. Hence the influence of location was also investigated. These three factors were considered as being potentially associated with differences between schools in retention rates. In addition to examining the association between retention rates and the social background of the students, it was possible to examine some characteristics of the school itself. First, we tested whether differences in retention rate were associated with differences in school size. Secondly, we tested whether the type of curriculum at Year 12 was associated with differences in retention rate.

Apparent Retention Rates

The data on apparent retention rates for each school were provided by the Policy and Planning Unit of the Victorian Education Department. Those data were in fact the ratios of enrolments in Year Level n for any given year to the enrolments in Year Level (n-1) for the preceding calendar year. Especially in the post-compulsory years of education, a

high value for such a ratio could arise from a school retaining a large proportion of its 'own' students or by attracting new enrolments to that year level (from other schools, from mature-age enrolments, or from students arriving from overseas). Hence the data used to examine holding power are best described as 'grade ratios' rather than 'retention rates' or 'participation rates'. An example of the ratios provided to us for each high school was the following:

$$G(11,12,82) = N(12,82)/N(11,81)$$

where G(11,12,82) was the grade ratio taken as a measure of retention from Year 11 to Year 12 between 1981 and 1982, N(12,82) was the number of students in Year 12 in 1982, and N(11,81) was the number of students in Year 11 in 1981. In subsequent sections of the report, the more commonly used term, 'apparent retention rate', has been used for these grade ratios.

For a school system, the retention rate, defined as the proportion of a given intake (N_j) reaching a given level (N_e), would be approximately equal to a weighted average of school grade ratios, provided that transfers out of one part of the education system to another part of the education system were not substantial. For Victoria in recent years, there is some evidence that nett transfer from high schools to TAFE colleges has been significant so that the grade ratios for the high school system do not accurately reflect retention rates in the education system.

This study was mainly concerned with the flow of students from the compulsory to the post-compulsory high school years. In practice it was directed towards the retention of students from Year 10 to Year 12. Hence the data most often used in this study refer to a specific transition and do not reflect commonly quoted retention rates to the extent that some students leave school before Year 10. The grade ratio, on which most of the analyses in this paper are based, is thus defined as:

$$G(10,12,82) = N(12,82)/N(10,80)$$

where N(12,82) = the enrolment in Year 12 in 1982

N(10,80) = the enrolment in Year 10 in 1980.

In practice this was calculated from the data provided as:

$$G(10,12,82) = G(11,12,82) \times G(10,11,81)$$

The same approach could be used to estimate retention rates for other composite transitions. For all the analyses of official records, the retention rate data were based on confirmed February enrolments.

Average Socioeconomic Level

Average socioeconomic level was based on official Education Department records which were in turn based on information about the occupation of the major family breadwinner provided by students in Years 7 to 9 obtained in 1982. The designated breadwinner's occupation for each student had been coded according to the 16-point ANU scale of social prestige (Broom et al., 1965). Each point on the scale had been assigned a mean status score derived from a validated metric for the categories (Broom et al., 1977). The average socioeconomic level had been then calculated as a weighted mean of the social status scores for all students in Years 7 to 9. Thus average socioeconomic level was related to the home background of the school's intake population rather than the area in which the school was located.

Further, by using an index based on the compulsory school years, it was possible to characterize the population served by the school rather than the subsection retained by it. The review of research given in Chapter 1 suggested that average socioeconomic level would be related positively to school retention rates.

Ethnicity

This index was provided from official departmental records and referred to the percentage of students in Years 7 to 9 who were born in a non-English-speaking country or who had at least one parent born in a non-English-speaking country. This information was gathered in 1982. The comments about average socioeconomic level being characteristic of the population served by the school apply equally to the indicator of ethnicity. However, the distribution of ethnicity across high schools was extremely skewed. Even though the proposed techniques of regression were considered robust regarding the nature of the distribution of independent variables, this skewness appeared such as to stretch that proposition beyond credulity. Hence for the analysis which is reported in Chapter 3 the distribution was transformed by breaking the score range into quartiles. The detail is shown in Table 2.1.

Location

Location was simply whether the school was in a metropolitan (coded = 2) or non-metropolitan region (coded = 1). There were seven metropolitan regions and five non-metropolitan regions.

School Characteristics

The characteristics of schools were included in the analyses of between-school differences in retention rate. First, because of evidence that the range of subjects offered at Year 12 was limited by the size of the school Ainley (1982), the total

Table 2.1 Transforming Ethnicity Measures into Quartiles for Victorian High Schools

	Percentage students of migrant background	Coded values
First quartile	3.0	0 - 3.0 = 1
Second quartile	11.2	3.1 - 11.2 = 2
Third quartile	32.4	11.3 - 32.4 = 3
		32.5 and above = 4
Mean	20.8	
Standard deviation	22.9	

enrolment as recorded by the Victorian Education Department for February 1983 and July 1982 was used as an index of size. Secondly, to examine the effect of curriculum type at Year 12, two elements of data from the Victorian Institute of Secondary Education were used. The first was simply whether or not the school was conducting an 'Approved Study Structure': an alternative school-based but accredited Year 12 course of study. The second was the number of accredited Group 2 subjects offered at Year 12. In both cases the data were derived from the lists of schools and courses published by the Victorian Institute of Secondary Education for 1982 and 1983 (VISE, 1982a, 1983a).

The Selection of Schools for Further Study

In the analysis of the data, it was observed that school retention rate was related to average socioeconomic level of the school intake, the percentage of students of non-English-speaking background in the school intake, and whether the school was located in a metropolitan or non-metropolitan region. However, it was also observed that there remained substantial variation in the residual retention rates, reflecting the possibility that many factors other than those mentioned could influence retention rates. To examine this further, schools which represented a range of retention rates were selected.

Sampling of Schools

The sixteen schools selected for more intense study did not constitute a random sample of schools. The purpose was not so much to generalize about students in schools across Victoria, but to examine school factors which might be related to student intentions to remain at school, and to school retention rates.

The prime purpose of the sample was to cover a range of patterns of retention so that schools were selected which had an established pattern of high, middle, or low retention from Year 10 to Year 12. Given knowledge about cohort effects in schools (Rowan, Bossert, and Dwyer, 1983) and evidence from the data concerning fluctuations in

Table 2.2 Characteristics of the Sample of Sixteen Schools

	Category			
	Low retention	Middle retention	High retention	Special interest[a]
Average mean retention (10-12) for 1980, 1981, 1982	24	41	62	64
Average differences between actual and expected average retention (10-12)	-16	-1	+26	+20
Number of schools	4	5	4	3
Non-metropolitan	1	1	1	-
Metropolitan	3	4	3	3

a One was high retention and traditional.
One was high retention and innovative.
One had recently increased retention.

retention rates from one year to the next, it was decided to base the selection not on one year's data but on the average from 1980 to 1982.

Initially four schools were selected which had a retention rate above expectation (at least 20 percentage points above the expected value), four schools were selected which had a retention rate below expectation (at least 14 percentage points below the expected value), and five schools were selected which were in the middle range of residual retention rates (the difference between that expected and that observed). These schools were chosen to cover city (ten schools) and country (three schools) and within the city area to cover a range of social environments. In addition three schools were chosen because of special features. One of these schools was of high retention with a traditional curriculum structure, one was of high retention with an innovative structure, and the third was a school in which the retention rate had recently undergone a rapid increase. The detail is summarized in Table 2.2.

Qualitative Methods

In studying the sixteen schools a blend of qualitative and quantitative techniques was employed. There were four main arguments for choosing the particular qualitative methods. The first was a concern that the theoretical perspectives which had been developed from a review of previous research were only formative. Even though that review had suggested some important propositions to be investigated, we were conscious that aspects of school programs and organization which might touch on retentivity were likely to be complex, inter-related, and not necessarily detectable by our questionnaires.

The second was a desire to extend and elaborate the propositions which were being investigated. In order to do this, it was necessary that the data gathered were not limited by the questionnaires which had been designed. The third argument was to cross-check the validity of the data so that the results of the questionnaires were, in a general sense, checked against the data from interview and observation. Conversely, the data derived from the questionnaires provided an important check on, and adjunct to, the inferences drawn from interview and observation. The fourth reason for making use of qualitative methods was to enable us to gain an understanding of the school framework within which students made decisions about remaining at school.

Multi-site Qualitative Research

The typical qualitative educational research design has been the case study which emphasizes in-depth description but which provides a limited basis for generalizing to other settings. However, there are examples of the use of qualitative methods in multi-site settings. One early example was a study by Goodlad and Klien (1974) of elementary schools. That study involved 67 schools with data being gathered from interviews with teachers, interviews with principals, and observation of activities. The interviews and observations were structured around 12 broad categories so that the information gathered from each site was comparable. By using this approach, the authors were able to suggest broad conclusions which could be applied to elementary schools in the United States.

More recently this form of research has been described as multi-site qualitative research to distinguish it from the classical case-study research (Herriott and Firestone, 1983). It seeks to generalize while preserving some elements of in-depth description. According to Herriott and Firestone, such research addresses the same research question in a number of settings using similar data collection and analysis procedures in each setting. Those authors identified four important design issues in multi-site qualitative research. The first concerned the degree of structuring in data collection, with most studies of this type placing a heavy reliance on semi-structured procedures. Structuring in multi-site qualitative research involved a common framework, common definitions of concepts, and common data collection procedures. The second concerned the number of sites to be studied with the authors noting that in the studies which they reviewed the median number of sites was 11 with most falling within the range from 8 to 22. It was an issue which had ramifications for the way in which data were used. If the number of sites was large, the researchers were forced either to draw upon the sites selectively or to quantify the data from all sites. The third issue was the amount of time spent at each site. Typically studies of this general type involved less time at each site than a classical case study. One or two short visits, or several intermittent visits were common

approaches. Finally, Firestone and Herriott drew attention to the choice between emphasizing site-specific reporting or issue-specific cross-site reporting. Most of the studies they reviewed used both reporting formats but there was a range in the emphasis placed on each.

For the present study the techniques used could be described as falling within the category of multi-site qualitative research. The data were gathered using semi-structured and structured techniques; there were sixteen schools involved in between two and six visits, and a balance between site-specific and cross-site reporting techniques was used.

Approaches to Gathering Data

The main approaches to gathering qualitative data were by interview and document analysis. Interviews were conducted with the school principal (or acting principal), key staff members, and students in Year 10. Typically the interview with the principal was conducted at the beginning of the study. It was not only used to provide substantive information for the study but also to provide suggestions for people to follow up in the school. The key staff members who were interviewed usually included the year level co-ordinators for Years 10, 11, and 12 and the careers teacher. If there was a curriculum co-ordinator or chairperson of a curriculum committee, that person was also interviewed. Other staff specific to the particular school were interviewed as appropriate (for example, a staff member responsible for an alternative program). Interviews with staff were held at some time after the interview with the principal, though for the three country schools they were held on the same day.

Small groups of Year 10 students were interviewed towards the end of the study when the questionnaire data had been analysed. That analysis had suggested that there might be a connection between retention rates and within-school factors such as student satisfaction and type of curriculum offerings. We decided to augment these data and explore the issue further by conducting interviews with some of the Year 10 students in the sixteen schools. With a limited amount of time available, it was more efficient and economical to talk to students in groups. The group interviews not only enabled the opinions of a greater number of students to be canvassed, but also past research experience had shown that more information often emerges from the group situation where the interaction between students generates ideas and encourages a thinking through of issues by debate.

Principals. The interview with principals began with an introduction to the study which was followed by a discussion about a number of issues. Even though it was not a question and answer format, the interviewer ensured that a number of key issues were raised. The approach also allowed more extensive discussion about particular issues

which arose in each school. The key issues which framed the core of every interview were as follows:

1 To what extent did the principal believe that schools should try to attract students to stay at school longer and what was their reaction to news comments about retention rates?

2 What were seen as the main influences on student decisions to stay at or leave school? In this we probed, with supplementary questions, the influences in this area, alternatives which were available, and parental expectations.

3 Had any changes been made in response to increased retention, or to attract more students to the senior levels, or were there any structures in existence which encouraged students to remain at school? In discussing these issues questions were raised about the Year 11 and Year 12 curriculum, the curriculum structure in Years 7 to 10, patterns of school organization, and things which were planned for the future.

4 What were the patterns of co-ordination in the school? Interest was focused on the role of subject departments or teams, the role and power of year level co-ordinators and subject co-ordinators, and the general extent of co-ordination of the program.

5 What were the principal's views of the purpose of the school and in particular of schooling in Years 11 and 12? In discussing these issues, questions were raised about the balance of priorities in the senior school, about changes in the mission of schools over recent years, and the extent to which agreement among staff was possible or desirable.

6 What were the expectations of parents and the community and did they influence school policy through bodies such as the school council?

In discussion of all these issues we sought examples rather than general statements. The interviews were tape recorded in most cases.

Teachers. For the teaching staff who were interviewed, a similar format was followed, except that greater emphasis was placed on questions related to their area of responsibility. For example, in interviewing the careers teacher, more emphasis was placed on question 2 and rather less on other aspects. Similarly an interview with a co-ordinator would focus on the area which was that co-ordinator's responsibility.

Students. For the interviews with students, the schools were asked to select two groups of six to eight students who would be roughly representative of the year level cohort, with a range of abilities and attitudes to school. Student interviews were conducted in 15 of the 16 schools.

Each group interview lasted from 20 to 30 minutes. The interviews were not formally structured but there was a basic format for interviewers to follow. After

determining each student's career and further study plans, the interviewer asked students what they were looking forward to and what they were concerned about in Year 11 and in Year 12, what they had heard from older students about the courses offered at the senior levels. Comments were invited on the Year 10 course which they had just completed, and on the way in which the school was organized. Students were asked for their interpretations of one of the items on the questionnaire concerning reasons for staying on to Year 12, which had drawn strong student support: 'I can do subjects which are useful to me'. Finally students were asked to identify any ways in which they would change the school if they were given the opportunity.

Document analysis. Several different types of documents were used to provide information about the schools in the study. Initially, the entry in the Secondary School Handbook (Victoria. Education Department, 1983) provided an outline of the school's program and structure. The return known as the SE61E provided additional detail about the curriculum of the school, and the transfer forms yielded information about transfers in and out of the school at each year level. Education Department records were used to indicate retention rates for the school over recent years. Within each school, staff or school handbooks and other documents provided information about choice of subjects and promotion policy. At some schools it was possible to obtain considerable detail about the school from documents prepared for recent school reviews.

Questionnaires: Design and Data

The study of sixteen schools involved a number of questionnaires designed to gather information about factors in the school which might influence the decision of students to stay on at school to Year 12. The questionnaires were intended to gather information from students, teachers, parents, and ex-students. This section outlines the reasons for approaching each of these groups of people, the rationale for the questionnaires which were developed, and some of the statistical properties of the data gathered through the questionnaires. A copy of each questionnaire has been included in Appendix I. The information about statistical properties of the data has been reduced to a minimum in this section. Fuller detail about the factor analyses used to probe the structure of the questionnaires and other statistical analyses have been provided in Appendix II.

Target Groups

Students. It was important to obtain a breadth of student opinion about school influences on retention so that, within each school, the perceptions of students could be considered in relation to documented school structures and practices. We decided, therefore, to develop a questionnaire for administration to a large number of students in the schools.

Table 2.3 Characteristics of the Student Samples in the Sixteen Schools

School	Year 10 students		Year 12 students	
	Sample	N Feb[a]	Sample	N Feb[a]
1	50[b]	145	54[b]	90
2	121	144	123[b]	142
3	50	133	42	96
4	45	150	47[b]	54
5	35	136	21[b]	30
6	99[b]	122	90[b]	109
7	52	81	19[b]	20
8	44[b]	47	15[b]	17
9	47	76	58[b]	75
10	44	179	43	105
11	69	159	58[b]	71
12	42	126	36	100
13	48	132	28[b]	39
14	50	68	21[b]	23
15	50	122	31[b]	44
16	46[b]	51	38[b]	50

a Indicates the number of students listed as enrolled in the year in February 1983.

b Denotes all students available at the time of the visit.

In a consideration of the issue of retention from the students' perspective, the two most critical years of secondary schooling seemed to be Year 10 and Year 12: Year 10 because this was the year in which the majority of students, having reached the school-leaving age, made the decision about continuing at school or leaving; and Year 12 because this was the final year of secondary schooling, and from this vantage point students could review and assess the value of their years of post-compulsory schooling.

It was intended to administer the questionnaire to a group of 50 students at each of the two year levels in the case-study schools; the students were to be randomly selected so that they were representative of the particular year level cohort. In practice, the sampling differed from what had been intended because of organizational constraints. Either we sampled three intact mixed ability classes, or we administered the questionnaire to all students at a given year level who were available on that day. The details of the student samples have been outlined in Table 2.3. Clearly the sampling procedures were not ideal. Where it appeared that there were special groups of students (e.g. for language instruction), we endeavoured to administer the questionnaire to all students at the year level. At Year 12 level, it was more common to take the whole of the Year 12 group rather than a sample of it. Overall we had some 892 completed questionnaires from Year 10 students and 724 from Year 12 students.

Parents. It has been suggested that when students have to make educational decisions they refer to parents and are influenced by parental attitudes (Sturman,

1979:27; Williams et al., 1981:32). Because Year 10 is such an important time for educational decisions, we felt that it would be useful to supplement the opinions of Year 10 students with the views of their parents on retention to Year 12 and associated issues. Thus a questionnaire was developed to send to 50 parents in each of the case-study schools.

In total, 804 sets of questionnaires (two questionnaires made up a set) with an explanatory letter and a free-post envelope for reply were sent out. Two reminder letters (with replacement questionnaires) were subsequently sent out and completed questionnaires were returned from 513 sets of parents (one or both was counted as a set): a response rate of 64 per cent. There were 862 replies from parents made up of 462 mothers, 389 fathers, and 11 which were not clearly specified.

Teachers. Although interviews with some teachers were planned at each of the schools to be visited, we felt that a more comprehensive coverage of teachers' views and experiences could be gained from the use of a questionnaire, to be made available to as many teachers as possible in the selected schools who were prepared to participate in the study. We needed to know how teachers translated their own and the school's aims into practice for the senior students, and what they perceived their roles to be in the operation and functioning of the school - this information would contribute to our understanding of the nature and extent of school effects on the retention of students to Year 12. The teacher questionnaires were distributed to teachers after an introductory talk about the project by the researchers. Teachers could either return the questionnaire direct to the ACER using a 'free post' envelope or lodge the sealed envelope at the school for bulk posting. In each case the questionnaire was accompanied by an explanatory letter. In total, there were 493 teacher questionnaires from the sixteen schools, making an average of 31 questionnaires per school. We estimated that this represented a response rate of just under 70 per cent of all teachers in those schools.

Former students. In approaching former students of the schools included in the study, the aim was to gather information from those who had completed Year 12 the previous year. Those students had stayed at school to completion and, in the words of one of the respondents, were 'over the post-HSC blues' and were 'thinking rationally and objectively'. It was believed that they could provide useful information not only about their reasons for staying at school to Year 12 but also about their experience in Year 12 in relation to their experience since school. We aimed to send our questionnaire to 50 Year 12 students from 1982, or as many as had been present in the school in that year if the school was small. In total, 644 past students were sent questionnaires and, after the reminders were completed, 497 replies were obtained. This constituted a response rate of 77 per cent.

The Rationale for the Student Questionnaires

In Chapter 1 it was hypothesized that young people would remain at school if they believed that school was a satisfying place in terms of their immediate experience (school is enjoyable), and if they believed that there were benefits to be gained in the long run from what schools offered (education is a personal investment), at least in comparison with the alternatives available.

In developing the questionnaire we tried to probe students' reactions to their school environment, especially the enjoyment/utility aspects, as well as collect information on their own educational aspirations and plans. The questionnaire contained two separate sections, one entitled 'School Life', the other 'Staying at School'.

The section entitled 'School Life' contained a 40-item instrument which was the result of work done at the ACER (Williams and Batten, 1981) on the development of a model specifying the dimensions of quality of life within schools from the perspective of students, and the development of a measure from this model in the form of a self-report Likert scale. The model was a direct analogue of the more general 'quality of life' measures found in the literature on social indicators. In its present form it covered three dimensions of school life: Positive Affect, dealing with the positive aspects of life at school (exemplified by items such as 'School is a place where . . . I feel proud to be a student, I really like to go'); Negative Affect, dealing with negative aspects of life at school (exemplified by items such as 'School is a place where . . . I feel restless, I get upset'); and satisfaction with specific domains of schooling.

The specific domains of school life were defined from first principles by drawing on a theory of schooling that links social structure and individual systems of action in schools. The five domains are: Status, the relative degree of prestige accorded to the individual by significant others within the school (e.g. 'I feel important', 'I am treated with respect'); Identity, consciousness of self in relation to the school society (e.g. 'I learn to get along with other people', 'other students accept me as I am'); Opportunity, a belief in the relevance of schooling (e.g. 'the things I learn are important to me', 'the work I do is a good preparation for my future'); Achievement, confidence in one's ability to be successful in school work (e.g. 'I know how to cope with the work', 'I am a success as a student'); and Teachers, awareness of teacher supportiveness (e.g. 'teachers help me to do my best', 'teachers are fair and just').

The 40 items that constitute the Quality of School Life instrument are shown in Figure 2.1. The items have been grouped according to the domains for which they were proposed as measures.

In items such as these, we hoped to capture students' feelings about enjoyment of school and the utility of schooling, factors that we felt would influence the decision to stay at school.

Positive affect

I like learning
I get enjoyment from being there
I really like to go
I feel proud to be a student
I find learning is a lot of fun

Negative affect

I feel depressed
I feel restless
I feel worried
I feel lonely
I get upset

Teachers

teachers help me to do my best
teachers give me the marks I deserve
teachers listen to what I say
teachers are fair and just
teachers take a personal interest in helping me with my schoolwork
teachers treat me fairly in class

Status

people look up to me
I feel important
I know people think a lot of me
I feel proud of myself
people care what I think
I am treated with respect

Identity

I find it easy to get to know other people
other students are very friendly
other students accept me as I am
I get on well with the other students in my class
I learn to get along with other people
mixing with other people helps me to understand myself

Opportunity

the things I am taught are worthwhile learning
the things I learn are important to me
the work I do is a good preparation for my future
the things I learn will help me in my adult life
I am given the chance to do work that really interests me
I have acquired skills that will be of use to me when I leave school

Achievement

I know I can do well enough to be successful
I get really involved in the work I do
I know how to cope with the work
I have learnt to work hard
I always achieve a satisfactory standard in my work
I am a success as a student

Figure 2.1 Items Grouped in the Domains of the Quality of School Life Questionnaire

The second section of the questionnaire was more explicitly concerned with staying at school. An ACER study of youth in transition from school to work or further education (Williams et al., 1980, 1981) had found that factors which influenced students' decision to stay at school were perceived ability, achievement in school work, educational and occupational aspirations, and background factors such as socioeconomic status and ethnicity.

In the questionnaire, all of these aspects were covered using forms that were adapted from the Youth in Transition Study questionnaires (Williams et al., 1981). Students were asked (1) to estimate their ability to cope with school work compared with other students in the class; (2) to indicate the degree of importance to them of a list of reasons for staying at school until Year 12 (including family, teacher, career, and peer group influences, and attitudes to school); and (3) to indicate the nature of post-school plans of self and friends, and expectations of parents and teachers. In addition students were asked to name parents' occupations, and father's country of origin.

Properties of the Quality of School Life Questionnaire

In considering the properties of the Quality of School Life questionnaire, an examination was made of the items and scales, to determine whether the items clustered into scales consistent with the measurement model which had been proposed, whether the scales formed by the items were reliable in the sense of being internally consistent, and whether the scales discriminated between schools.

The technique used for checking the patterns of clustering in the data was factor analysis (see Child, 1970). Details of the procedure used and the results have been provided in Appendix II. Generally the items clustered in a pattern consistent with the model proposed. Of the 40 items, only three were identified as loading on different scales to those originally proposed. Item 7 ('My school is a place where I really get involved in the work I do') was intended as measure of the achievement domain but loaded more strongly as an indicator of general positive affect. Item 15 ('My school is a place where people care what I think') and item 17 ('My school is a place where I am treated with respect') were both intended as measures of status. In practice both items were associated more strongly with those items related to teachers than with the other status items. These three items were dropped from the calculation of scale scores. Overall the factor analysis confirmed the initial structure proposed for the quality of school life questionnaire for both Year 10 and Year 12 students.

On the basis of these results, scales corresponding to the domains originally proposed were constructed. These scales were shown to be reliable (the values of coefficient alphas ranged from 0.73 to 0.86, with a median value of 0.78) and the scores covered an appropriate range of the possible scale. Details have been recorded in Table 2.4.

Table 2.4 Scale Statistics for Quality of School Life Questionnaire

Scale	No. items	Year 10			Year 12		
		Alpha reliability	Mean[a]	SD[a]	Alpha reliability	Mean[a]	SD[a]
Positive affect	5	.83	13.6	3.3	.79	14.2	2.8
Absence of negative affect[b]	5	.73	15.0	2.9	.79	14.3	3.1
Teacher student relationship	6	.82	16.8	3.4	.78	18.1	2.7
Status	4	.74	9.7	2.4	.77	10.0	2.3
Identity	6	.76	18.7	2.7	.74	18.6	2.5
Opportunity	6	.86	17.5	3.9	.82	18.2	3.2
Achievement	5	.76	15.0	2.6	.74	14.9	2.3

a Based on unweighted data with no correction for scale length. Possible ranges were from 4 to 16 for four-item scales, from 5 to 20 for five-item scales and from 6 to 24 for six-item scales.

b Based on reversal item scores so that a higher score means greater satisfaction, as is the case for the other scales.

Scale scores were calculated by the usual procedures. For each student, each item was coded from 1 (definitely disagree) to 4 (definitely agree) and the scale score was calculated by adding the item scores. In the case of the 'negative affect' scale, the items were reverse coded (4 = definitely disagree, 1 = definitely agree) before being summed. The resultant scale was called 'absence of negative affect' so that the higher the score, the greater the satisfaction with school. As the scales contained different numbers of items (4, 5, or 6) the total was multiplied by a factor to bring each possible range to that of a five-item scale in order to make reporting to schools more clear. A test was made as to whether there were significant differences between schools in the scale scores obtained. In all except the identity scale for Year 10 students, the F ratio obtained indicated that there were significant differences between schools. Details have been shown in Appendix II. The data also indicated that, even though the between-school differences were significant and worth examining further, the proportion of the total variance attributable to differences between schools was comparatively small (see Appendix II). The greatest discrimination occurred for the general positive affect scale, and the least for the identity scale. One interpretation could be that the identity items reflected individual student perceptions, as opposed to the school environment, to a greater extent than other scales.

In summary, the proposed structure of the quality of school life questionnaire was confirmed and the scales which were formed were shown to have suitable psychometric properties for further analysis.

The Questionnaire to Teachers

The questionnaire to teachers was designed to elicit information about teachers' attitudes to schooling at the senior secondary level, the operation of communication networks in the school, and the degree of satisfaction displayed by teachers in various aspects of their work situation. We felt that this information would complement the information obtained from students about their motivations for staying at school until Year 12, set in an organizational framework.

The first item on the teacher questionnaire covered factual details such as length of teaching experience, teaching allotment, and organizational responsibilities. The second item was analogous to a similar item on the student questionnaire and asked teachers to indicate what they thought the important influences should be on students' decisions about when to leave school (e.g. parents, peers, teachers, career plans, academic performance, attitude to school work). The third item on the questionnaire asked teachers to indicate on a four-point scale the extent of their agreement/disagreement with 12 statements about the role of schooling in Years 11 and 12. The statements were intended to reflect three distinct but associated aspects of the

'roles of schooling': the first aspect was the philosophical basis of schooling in Years 11 and 12 (for example 'give all students the opportunity to continue their education'); the second aspect was the type of curriculum which should be offered at the senior secondary level (for example, 'concentrate on academic subjects in preparation for HSC'); and the third aspect was the emphasis given to the personal and social development of the individual student (for example, 'develop students' sense of worth and personal identity'). In part, the statements reflected the areas of concern in secondary education expressed in three Schools Commission reports (1980, 1981, 1983) and in a recently developed Classification of Educational Issues (Batten, 1983) based on school and community views of the purposes of education.

The fourth item of the questionnaire asked teachers about patterns of communication in the school in an attempt to assess the extent of cohesiveness among the staff. Some research from United States schools had suggested that more positive student attitudes to schools could be attributed to strong linkages between teachers (Miskel and McDonald, 1982), that less student conflict existed where students worked within a strong, consistently articulated framework (Metz, 1978), and that teacher satisfaction was enhanced where teachers were involved in collaborative planning (Bridges and Hallinan, 1978). Recent research conducted in Australia (Batten, 1983) suggested that among the common elements present in secondary schools responding successfully to challenges of the eighties were staff cohesiveness, staff identification with program, and involvement of staff in the decision-making process. In the light of these suggestions, we hypothesized that stronger cohesiveness among staff would be related to an enhanced quality of school life for students and to higher retention rates. Thus, the rationale for examining cohesiveness and communication was primarily to examine whether those features related to students' perceptions of the quality of school life and to school retention rates.

Part of the notion of the strength of co-ordination has been referred to as structural coupling: the mechanisms and norms of interaction among individuals in a system which bind the parts of that system together (Miskel and McDonald, 1982). Sometimes the general concept has been separated to consider structural coupling within the operating core (i.e. between teachers) in a school, and structural coupling linking the middle line (i.e. the administration) and the operating core (see Miskel and McDonald, 1982). Other approaches to school organization have adopted a more global approach and considered the extent of co-ordination within an area (such as the program or discipline) rather than between components (see Hoy, 1979).

The various approaches were derived from studies in elementary schools and modified to suit secondary schools. However, in secondary schools, sub-units within the organization are important and it seemed necessary to look at the equivalent of 'middle management': the head of department. In order to do this, we modified the

'communication with the principals' scale. In retrospect it seems that we took too narrow a view of 'middle management' and should have considered the year level co-ordinator as well as the head of the subject department. Our case studies suggested that in some schools the year level co-ordinator (or in one case the team leader) was a more important link in school operations than the subject co-ordinator.

Within the fourth item of the teacher questionnaire were four separate scales: one being concerned with program co-ordination in general and the remaining three referring to different aspects of structural coupling.

(a) Program co-ordination. Batten (1983) drew attention to the importance of continuity in the program and detailed planning in successful secondary schools. A six-item scale was developed in an attempt to assess whether teachers saw the instructional program as extensively co-ordinated. Its origin was in a 14-item measure of instructional coupling (Hoy, 1979), part of which was tried in some Victorian primary schools. However, it has been so extensively modified for use in the present form that only the general idea remains.

(b) Work interdependence. This was adapted from a scale entitled the 'intensity of work system interdependence' which was developed by Bridges and Hallinan (1978) and used widely with modification in other studies (e.g. Miskel, Bloom and McDonald, 1982). It asked teachers how frequently they worked collaboratively with other teachers and it had been shown to be reliable (alpha = 0.8 to 0.9) and valid. A trial in some Victorian primary schools as part of another project confirmed its reliability and suggested that it discriminated between schools. The adaptation in the present questionnaire contained eight rather than 13 items and had a different response key to that in the original. Those changes were based on the results of the trial and on a consideration of the different context of secondary schools.

(c) Communication with subject co-ordinator. This six-item scale was based on a scale used in a number of studies (e.g. Meyer and Cohen, 1971) to examine communication with peers. It had been shown to be psychometrically reliable both in overseas studies and in Victorian primary schools. However, the original form did not discriminate between schools. A form concerned with communication with the principal was also reliable and did discriminate between schools. In the present study we directed the scale towards the subject co-ordinator (rather than other teachers) in recognition of that role in a secondary school. One item of the original scale was deleted.

(d) Communication with the principal. Batten (1983) attributed much of the development of staff cohesiveness to the role of the principal and vice-principals.

Table 2.5 Scale Statistics for Scales on the Teacher Questionnaire

Scale	No. of items	Alpha reliability	Mean	SD	Possible range
Teacher Satisfaction					
Students	6	.82	30.0	6.9	6-42
Workload	5	.77	22.8	6.9	5-35
Org. Environment	8	.75	42.0	7.7	8-56
Co-ordination					
Program co-ordination	5	.84	12.5	3.1	5-20
Work interdependence	8	.86	14.5	8.3	0-48
Communication: Dept head	6	.87	15.9	7.0	0-36
Communication: Principal	6	.89	7.0	6.5	0-36
Roles of Schooling					
Role A	7	.t.	24.9	3.1	7-28
Role B	3	.71	8.2	3.7	3-12

The six-item scale, intended to assess communication with the principal, was also based on original work by Meyer and Cohen (1971). It had been shown to be highly reliable and to discriminate between schools.

The fifth item on the questionnaire was a measure of teacher satisfaction. We included this measure as a complement to the school life questionnaire for students, to test the propositions that positive attitudes to school by students (and therefore higher retention) might be generated if teacher satisfaction was higher and that teacher satisfaction might be higher in a more cohesive school environment.

This instrument was based on a Canadian study by Holdaway (1978), which was amended for use in a study of Victorian schools by Fordham (1981), and further amended as a result of reanalysis and trial by Bourke (1984). The initial form contained 42 statements covering seven aspects of job satisfaction. The form in our questionnaire contained 19 statements embracing three sub-scales: administration, students, and workload. On the basis of the data from the Canadian and Victorian studies, we expected reliabilities to be high.

Properties of Scales in the Teacher Questionnaire

As already indicated, the teacher questionnaire contained several scales. Details of the factor analyses used to examine the structure of those scales have been recorded in Appendix II. The following discussion makes reference to the results of those analyses. The reliabilities of each of the scales, concerned with different parts of the teacher questionnaire, have been shown in Table 2.5.

Teacher satisfaction. The teacher satisfaction measure was a modified version of one originally developed by Holdaway. The results of the factor analysis of the teacher

responses from the sixteen schools suggested that three factors could be assumed to result in the data observed, and the pattern of loadings suggested that the items formed clusters in a pattern matching that proposed. The first referred to satisfaction with students, the second to satisfaction with workload, and the third to satisfaction with the organizational environment. The term 'organizational environment' seemed more appropriate than 'administration' as a description of what was common to the items in this third cluster. The alpha reliabilities of the three scales, which have been shown in Table 2.5 along with other psychometric properties, were of a sufficiently high value to justify further analysis. The scale in which our interest was centred was that designated as 'satisfaction with the organizational environment'. The value of coefficient alpha for that scale was 0.75.

Program co-ordination. In the six-item scale included, item number 3 did not load with other items. This reflected the fact that it was concerned with co-ordination between subject departments and, as discussed below, subject departments are not always the most important sub-unit within a school. Hence item 3 was dropped to give a five-item scale with an alpha reliability of 0.83.

Structural coupling. The conceptual separation of the linkages between teachers, between teachers and principal, and between teachers and subject head was confirmed by means of a factor analysis which has been reported in Appendix II. The three scales had high reliabilities as shown in Table 2.5. The one weakness in terms of psychometric properties was the 'floor' effect for the principals scale. It seems that teachers in Victorian high schools rarely talk to a principal or vice-principal about these work-related matters (the mean score corresponds to a frequency of about once per year). Indeed communication with a department head does not seem to be frequent for most teachers nor does working with other teachers in the school.

The roles of schooling. Teachers were asked to indicate the extent to which they agreed with 11 statements about the purpose of schooling in Years 11 and 12. It was presumed that the items represented three clusters: the philosophical basis of schooling, the type of curriculum, and the emphasis given to social and personal development. In practice a factor analysis, the results of which have been reported in Appendix II, suggested that these items clustered in two groups. The first group consisted of items related to a broad liberal role for schooling in Years 11 and 12 (e.g. 'develop students' sense of worth and personal identity', 'encourage students to develop links with the community'). The second group consisted of items concerned with academic preparation and career (e.g. 'concentrate on academic subjects in preparation for HSC'). One item ('cater for only the most able students') loaded on both factors. This appears to have been because almost everyone disagreed with that as an appropriate statement for schooling in Years 11 and 12. It was dropped from the analysis.

One of the implications of this which deserves emphasis was that these two roles did not represent the opposite poles of the same dimension. Rather, they represented two orthogonal dimensions on which individuals' views of schooling in Years 11 and 12 could be mapped. Expressed differently this means it was possible to rate both of the roles as important.

From these results, it was possible to form two scales which were designated as 'role A' (the general role) and 'role B' (the academic role). The reliabilities and other properties have been shown in Table 2.5. Even though there were larger differences between individuals than between schools, the between-schools variance was significant (see Appendix II). Hence it was possible to use these scale measures to characterize the curriculum emphasis in schools.

In fact, when school mean scores were used, the dimensions were no longer orthogonal but were negatively correlated ($r = -0.62$). In brief, schools where more teachers emphasize Role A were also schools with less of an emphasis on Role B. It could also be noted that teachers in the sample generally agreed more with the Role A statements (the mean rating was 3.3) than with the Role B statements (the mean rating was 2.4).

The Parent Questionnaire

So that comparisons could be made between the responses of parents, teachers, and students both within schools and across schools, some identical items were included in the three questionnaires. The parent questionnaire contained three items that have already been described in previous sections - one on reasons for students staying at school, another on influences on post-school plans for students, and a third on the roles of schooling in Years 11 and 12. In this questionnaire, as in the others, space was allowed for respondents to comment on any other aspect of schooling that was relevant to the issue of retention.

In the data derived from the question concerned with the roles of schooling in Years 11 and 12, a similar pattern to that obtained from the teacher questionnaire was found. As for the data obtained from teachers, nearly everyone disagreed with the proposition that schooling in Years 11 and 12 should 'cater for only the most able students'. It was therefore dropped from subsequent analyses. Also similar to the pattern in the data from the teachers was a clustering of items into two scales: role A (the general role) and role B (the academic role). However, there was some evidence, in the data from parents, of a separation of items in the role A group into two sub-groups concerned with the curriculum and the emphasis given to social and personal development. This was in keeping with the original presumptions about the items but it was not sufficiently clear to warrant three scales being formed.

In the two scales corresponding to Role A and Role B, the values of coefficient alpha were found to be 0.76 and 0.62 respectively. A difference between the responses of teachers and parents was that parents did not generally agree more with role A than with role B statements. The mean ratings for the statements reflecting each role were identical at 3.6.

The Questionnaire for Former Students

The principal aim of the former student questionnaire was to gather information about the nature and extent of the factors that influence students when making the decision to stay at school until Year 12. Students who made such a decision presumably had chosen the option of more education because they considered it to be the best of the alternatives available to them. In some cases the perceived benefits would be short term (such as enjoyment of school, avoidance of unemployment), in others the benefits would be long term (such as preparation for a future career). These perceived benefits may have been linked to certain aspects of school organization, curriculum, or environment. In addition, the questionnaire ventured outside the school to see if the potential benefits of additional schooling became actual benefits to students in their post-school lives.

The questionnaire repeated the three items on the student questionnaire concerned with perceived ability, reasons for staying at school until Year 12, and post-school plans made in Year 12. Two further items were taken from the Youth in Transition questionnaires (Williams et al., 1980) which had been used annually with a sample of young people from their 17th to their 20th year. One item enabled respondents to give a month-by-month account of what they were doing with regard to work and study. The second item dealt with quality of life: respondents were asked to indicate their degree of satisfaction with such aspects of their lives as work, independence, social life; this item was seen to be a condensed substitute for that part of the student questionnaire that dealt with the quality of school life.

The item on the role of schooling in Years 11 and 12 that appeared in the teacher and parent questionnaires was included in the former student questionnaire to give an additional perspective on this issue.

Another item on the former student questionnaire was concerned with the degree to which the final years of secondary schooling had prepared respondents for various aspects of life in their first post-school year - aspects such as job-related skills, knowledge of society, self-confidence, leisure skills, and study skills. Eleven statements were listed for comment, seven of them adapted from an item on a career questionnaire to former students of pre-vocational education (see Ainley and Fordham, 1979:115); this scale was found to have a satisfactory reliability (alpha = 0.83). The four other statements that were added to the list explored further the issue of the relevance of schooling to adult life.

Table 2.6 Scale Statistics for the Former Student Questionnaire

Scale	No. of items	Alpha reliability	Mean	SD	Possible range
Quality of Life					
Material	5	0.66	13.6	2.6	5-20
Personal	4	0.70	12.0	2.2	4-16
School Preparation	11	0.84	29.8	5.9	11-44
Roles of Schooling					
Role A	8	0.82	27.9	3.5	8-32
(Role B[a]	2	0.63	6.2	1.4	2-8)

a Only two items and so not really a scale. Included in parentheses as illustration only.

In the analysis of data concerned with the roles of schooling in Years 11 and 12, one difference from the pattern found among teachers and parents emerged. The item 'prepare students for their future career' clustered with the 'role A' (the general role) rather than the 'role B' (the academic role). As a consequence, for past students the 'role A' scale contained eight items (coefficient alpha = 0.82) with only two items reflecting the academic role of schools. Possible interpretations of this difference have been explored in Chapter 7. Details of scale statistics for this and other scales from the former student questionnaire have been shown in Table 2.6. Further detail about properties of the scales have been recorded in Appendix II.

The eleven items concerned with retrospective views of schooling formed one reliable scale (coefficient alpha = 0.84). A high score indicated that the respondent believed their school experiences had provided a good preparation for life and work and low score indicated that the respondent believed that preparation was not good. In using former student responses concerned with adequacy of their school experience, both scale scores and item responses were used.

The ten items concerned with respondents views of the quality of life consisted of one item which focused on general quality of life and nine which asked about specific components of the quality of life. These specific items clustered into two groups. The first concerned the quality of the respondents personal life (e.g. 'how you get on with people') and the second concerned the respondents material quality of life (e.g. 'your own standard of living'). The personal quality of life scale contained four items and the material quality of life scale contained five items. Both had moderate reliabilities; coefficient alpha was 0.70 and 0.66 respectively.

The Methodology: In Summary

In this study of retention in Victorian high schools, complementary approaches have been used. The study involved analyses based broadly on the population of high schools and

analyses based on detailed studies in the group of sixteen schools. The broad analyses were conducted quantitatively using data derived from official records. The detailed studies involved both qualitative and quantitative methods in order to ascertain the perspectives of students, teachers, parents, and former students. The methodology was based on the premise that a study of retention in secondary schools demanded the application of complementary approaches.

CHAPTER 3

DIFFERENCES BETWEEN SCHOOLS

A major part of the present study of secondary school retention is concerned with an examination of factors influencing retention in the sixteen high schools. To provide the context in which these detailed observations could be grounded, some analyses of differences between schools in retention rate were conducted on a larger scale. Those larger scale analyses have been presented in this chapter. It begins with an examination of trends in retention rates from 1979 to 1983, then continues with an analysis of some aspects of the differences between schools in retention rates, and concludes with an explanation of the changes in retention rates between 1982 and 1983. The examination of trends in retention rates has been reported in order to establish the extent to which changes have taken place in recent years. It draws attention to the increase which occurred between 1982 and 1983. The analysis of differences between schools in retention rates highlights 'in-school' and 'out-of-school' factors which were associated with those differences. Finally, the examination of changes in retention rates between 1982 and 1983 reveals that those changes were not uniform and explores characteristics associated with the size of the increase.

Since most of the analyses in this chapter have been based on the population of Victorian high schools (see Chapter 2), tests of statistical significance have not been reported. Rather, in discussion of the results, attention has been focused on the magnitude of the effect concerned. In the case of multivariate analyses, attention has been concentrated on effects for which the standardized regression coefficient was greater than 0.1.

Trends in Average School Retention Rates

From official data held by the Victorian Education Department, the mean school retention rates from Year 9 to Year 10, from Year 10 to Year 11, and from Year 11 to Year 12 were calculated for the past five years. For each year the data refer to confirmed February enrolments. The results have been recorded in Table 3.1. The data which are tabulated refer to mean school retention rates rather than the retention rates for the system as a whole. However, since there is not a strong relation between retention rate and school size, the school figures are probably a good approximation of the system figures. Table 3.2 contains system-wide data based on aggregate enrolments for comparison with Table 3.1 for the years 1979 to 1982.

High School Post-compulsory Years

High school retention rates from Year 10 to Year 11 and Year 11 to Year 12 were fairly

Table 3.1 Mean Apparent School Retention Rates[a]

	High schools			Technical schools[b]		
	G(9,10)	G(10,11)	G(11,12)	G(9,10)	G(10,11)	G(11,12)
1978-79	92	78	51	92	65	-
1979-80	92	76	50	93	67	-
1980-81	91	76	50	90	69	31(4)
1981-82	92	78	52	94	70	30(16)
1982-83	94	83	59	98[c](96)	80	35(37)
Average SD	10	15	18	15	19	23

a Schools for which a retention rate at a given year level was not possible have been excluded.
The data do not exclude schools with special intake characteristics.

b Figures for G(11,12) based only on those schools (N is shown in brackets) offering Year 12.

c Figure inflated by one high retention rate (a technical college). Excluding this data point gives a figure of 96.2.

constant from 1979 to 1982 but each increased sharply in 1983. From 1979 to 1982, about 77 per cent of those in Year 10 remained to Year 11 and about 51 per cent of those in Year 11 remained to complete Year 12. For 1983, the rates for each transition increased to 83 per cent (an increase of 5 percentage points) and 59 per cent (an increase of 7 percentage points). While the increases in retention rates were similar, the proportionate increase for the transition from Year 11 to Year 12 was greater because the base was lower.

Technical School Post-compulsory Years

Technical school retention rates from Year 10 to Year 11 grew a little over the period from 1979 to 1982 but increased more sharply from 1982 to 1983. From 1979 to 1982 the retention rate from Year 10 to Year 11 increased from 65 per cent to 70 per cent (an average increase of 1.4 percentage points per year) but in 1983 there was an increase of 10 percentage points to 80 per cent. As a result of these changes, by 1983 technical school retention to Year 11 was nearly the same as for high schools.

Table 3.2 Retention Rates for Secondary School Students - Official Records[a]

	High schools			Technical schools		
	G(9,10)	G(10,11)	G(11,12)	G(9,10)	G(10,11)	G(11,12)
1978-79	92	76	52	91	62	-
1979-80	92	77	51	92	64	-
1980-81	92	77	52	93	66	-
1981-82	92	78	53	94	70	4

a Source: Victoria. Education Department. Compendium of Statistics 1982. Melbourne: Education Department of Victoria, 1983.

Between 1981 and 1983 a small but increasing number of technical schools offered Year 12 courses. In 1981 there were four such schools but by 1983 the number had grown to 37. This was about one third of Victorian technical schools. For these schools the retention rate was about 35 per cent for the transition from Year 11 to Year 12.

The Transition from Year 9 to Year 10

For high schools the retention rate from Year 9 to Year 10 remained constant at about 92 per cent from 1979 to 1982. In 1983 the retention rate for this transition increased slightly to 94 per cent.

In technical schools over the period from 1979 to 1982, the retention rate from Year 9 to Year 10 was similar to that for high schools (about 92 per cent) but with a drop in 1981 and a rise in 1982. In 1983 the figure increased to 98 per cent possibly corresponding to the decline in the availability of apprenticeships.

Other Courses of Study

The figures in Table 3.1 refer only to the apparent retention rates for schools. Enrolments in courses outside the secondary high and technical school systems have not been included. Yet in terms of retention in education those enrolments are important. Praetz (1983) estimated that, in 1982, around 8 per cent of 17-year-olds in Victoria were enrolled in full-time courses in Technical and Further Education. In 1981 the corresponding figure was 7 per cent. Of the full-time courses in Technical and Further Education, the most relevant to a consideration of retention rates is the Tertiary Orientation Program (TOP). Figures published by the Commonwealth Tertiary Education Commission (1982) suggested that in 1981 there were 16 162 students who satisfactorily completed Higher School Certificate (HSC) and 2787 who satisfied university entrance requirements through the TOP. Between 1975 and 1981 the latter group had nearly doubled while the HSC student numbers increased by only a small amount. More recent data suggest that enrolments in the TOP have continued to increase rapidly. Preston (1983) suggests that the overall retention to Year 12 in 1982 would have been about 12 per cent higher if TOP enrolments had been included than if they had been excluded. In 1979 the adjustment would have been about 7 per cent. Even though this study was primarily concerned with retention in high schools, it was important to note that some of those who left school would have enrolled in courses such as the Tertiary Orientation Program.

Differences between High Schools in Retention Rates

This section is concerned with the retention of students from Year 10 to Year 12 as an indication of the flow of students from the compulsory to the post- compulsory high

Table 3.3 Estimated Retention Rates from Year 10 to Year 12 for Victorian High Schools from 1980 to 1983[a]

	Retention 1980	Retention 1981	Retention 1982	Average retention 1980-82	Retention 1983
Excluding special cases					
Mean	38	38	39	38	45
SD	14	14	14	12	16
First quartile	29	29	29	30	33
Median	36	37	37	37	42
Third quartile	46	47	49	46	54
Minimum	4	6	8	12	8
Maximum	83	74	78	71	110
Including special cases					
Mean	39	39	40	39	46
SD	14	15	15	13	25

a Based on confirmed February enrolments.

school years. Hence the apparent retention rate on which most analyses have been based is G(10,12) as defined in Chapter 2. In many of the analyses, schools which have special characteristics have been excluded. For this purpose, schools with special characteristics were taken to be community schools which attracted large new enrolments in Years 11 and 12, senior high schools for which the idea of a retention rate is complex, and high schools with a selective intake. There were six such schools for which some data were available but which were not included.

Averages and Dispersion: 1980 to 1982

For the period of time from 1980 to 1982 when mean retention rates to Year 12 did not alter greatly, average retention rates were estimated as the average over three cohorts completing school in 1980, 1981, and 1982. This was done to provide a stable measure of the underlying retention rate for each school.

From the data provided in Table 3.3, it is apparent that there were differences between high schools in the retention rate from Year 10 to Year 12. Taking the data based on the average retention rate over the three cohorts, it can be seen that one quarter of schools held fewer than 30 per cent of the Year 10 students to Year 12, while one quarter of schools held more than 46 per cent of Year 10 students to Year 12. The smallest average retention rate for this transition was 12 per cent and the largest was 71 per cent.

Table 3.3 also contains information indicating retention rates for each of the three years. There was no evidence of a statewide trend over these years but there was a wider dispersion of retention rates for each separate year than for the average over three years.

Table 3.4 Variance Components for Average Retention Year 10 to Year 12

Variance component	Proportion of variance in average retention (Year 10-Year 12) explained
Unique to retention Years 10-11	0.14
Unique to retention Years 11-12	0.49
Common to retention(10-11), retention(11-12)	0.37

The data in Table 3.3 showed that the effect of excluding the special cases described was to give a slightly lower overall mean and a smaller dispersion. The few excluded schools generally had very high apparent retention rates (for example, in excess of 150 per cent) probably resulting from transfers into the school. However, the inclusion of these special cases gives a better index of the holding power of the high school system as a whole.

Which Transition Contributes Most to Between-School Differences?

Two transitions contributed to the overall retention rate from Year 10 to Year 12. The first was the transition from Year 10 to Year 11 and the second was the transition from Year 11 to Year 12. Although schools differed in terms of retention at each transition, it was of interest to investigate which contributed the most to the between-school differences in overall retention rate.

The data in Table 3.1 showed that for Victorian high schools (excluding the special cases) there was slightly greater dispersion of retention from Year 11 to Year 12 than from Year 10 to Year 11. These data suggested the possibility that it was the transition from Year 11 to Year 12 which most influenced differences between schools in retention rates. To test this further, the relation between overall retention from Year 10 to Year 12 and the retention rates at each of the two transitions was examined.

The technique used was commonality analysis through which the total variance in overall retention rate was partitioned into that arising from variance in retention from Year 10 to Year 11, that arising from variance in retention from Year 11 to Year 12, and that arising from joint variance in retention at both levels. The results shown in Table 3.4 suggested the following:

(a) Only 14 per cent of the variance in retention rates was uniquely associated with variance in retention from Year 10 to Year 11.

(b) Some 37 per cent of the variance in retention rates was associated with variance at both levels.

Table 3.5 Changes in School Retention Rates from Year 10 to Year 12 for 1980-81 and 1981-82

Retention rate G(10,12) change (percentage points)	Percentage schools 1982-1981	Percentage schools 1981-1980
18.0 or greater	5	2
13.0 to 17.9	6	4
8.0 to 12.9	11	13
3.0 to 7.9	18	24
-2.9 to 2.9	24	21
-7.9 to -3.0	18	13
-12.9 to -8.0	11	10
-13.0 to -17.9	5	7
-18.0 or greater	2	4
Mean change	1.0	0.0
Standard deviation	10.3	10.8
1st quartile	-5	-7
2nd quartile	0	2
3rd quartile	6	6
Mean magnitude of change	7.5	7.8
Standard deviation	7.0	6.4
1st quartile	3	3
2nd quartile	6	6
3rd quartile	11	11

(c) About 49 per cent of the variance in retention rates was uniquely associated with variance in retention from Year 11 to Year 12.

In brief the results suggested that, in examining differences between schools in retention rate, it was of the greatest importance to examine the transition from Year 11 to Year 12.

The Stability of Retention Rates

School retention rates fluctuate from year to year. Over the period from 1980 to 1982 when there was little change in the mean retention rate for high schools in Victoria, there were changes in retention rates for individual schools. The changes in the retention from Year 10 to Year 12 between 1980 and 1981 and between 1981 and 1982 have been shown in Table 3.5. Those data show that between 1980 and 1981 a quarter of schools had a decline of 7 percentage points or more and a quarter of schools recorded an increase of 6 percentage points or more. The corresponding figures for the changes between 1981 and 1982 were 5 percentage points and 6 percentage points. If only the magnitude of the change (and not its direction) was considered, the mean change from one year to the next in this period was between 7 and 8 percentage points. Thus, even in a time of little nett change in retention rate for the system, there was some fluctuation in the retention rates for individual schools. To elaborate this point further, the correlation coefficients between retention rates for each year are shown in Table 3.6.

Table 3.6 Correlation Coefficients between Retention Rates for Different Cohorts

	Retention rate 1981	Retention rate 1982	Retention rate 1983
Retention rate 1980	0.70	0.6[illegible]	0.49
Retention rate 1981		0.72	0.65
Retention rate 1982			0.71

Even though they indicate an underlying association, the figures are somewhat less than one. Retention rates do fluctuate from year to year.

One implication of these results is that there are risks in examining the effects of school policies on retention rates, or other outcomes, using data derived from a single cohort. Year-to-year fluctuations such as those described would tend to reduce the chance of identifying school effects which may be present. Throughout the present chapter, when examining differences between schools, both average retention rates over three successive cohorts and single year retention rates have been used. In selecting schools for further study, as reported in subsequent chapters, it was important to use the established retention over the three successive cohorts.

It seemed unlikely that the fluctuations would be solely due to changes in the social background of the school population. Changes in social area characteristics would usually be slower and less widespread than would explain these fluctuations. It was possible that some of the changes could be explained by school factors such as changes in curriculum, changes in organization, or changes in personnel.

If that were general, the changes might be expected to be enduring rather than transient. However, if changes in some schools resulted in the nett transfer of students into the schools, there would be an increase in the retention of those schools and a corresponding decline in other schools. In those circumstances, an increase in the dispersion of apparent school retention rates would be expected. The data in Table 3.3 showed only a slight increase in dispersion over the years from 1980 to 1983 when special cases were excluded. Another possible explanation for the fluctuations observed is that they could reflect a 'cohort effect'. As most teachers would testify, there may be 'good years' and 'bad years' in terms of student interest, behaviour, and performance. There is some research evidence to support the presence of cohort effects in elementary schools (Rowan et al., 1983). Explanations of how such an effect might operate could possibly involve the structures and relations in peer groups which reinforce chance variations in initial aptitude and motivation.

Factors Associated with Differences in Retention Rate

In the preceding sections, it was suggested that there were differences between high

Table 3.7 Results of Regression Analysis of Retention Rates on Socioeconomic Level, Ethnicity, and Location

Independent variable[a]	Metric regression coefficient(b)	Standard error of b	Standardised coefficient(B)
Socioeconomic level	0.75	0.12	0.40
Ethnicity	3.83	0.89	0.36
Location	4.69	1.83	0.19

Multiple R = 0.463
Percentage variance explained = 0.214

a See Chapter 2 for definitions.

schools in retention rates, that these differences were largely (but not entirely) attributable to differences in retention from Year 11 to Year 12, and that there were fluctuations in the retention rates for individual schools. It remains to probe some of these differences to find the extent to which they reflect differences in the communities served by schools and the extent to which school policies might contribute to the differences. We first examined the influence of the environment on high school retention rates, and then made a preliminary study of possible associations between retention rates and general school policies.

The Influence of the Social Environment on High School Retention Rates

This section is concerned with the extent to which between-school differences in retention were attributable to the social characteristics of the population being served: its socioeconomic level, its ethnicity, and its location. The social indicators which were used have been described in Chapter 2. Basically the technique was to use regression analysis with a retention rate measure as the criterion and the three indicators of the social environment as predictors. This form of analysis permitted inferences of the 'other things equal' type to be drawn. In other words, instead of a simple examination of raw correlation coefficients, it was possible to obtain data which allowed inferences to be drawn - for example, about the strength of the relationship between average socioeconomic level and school retention rate, holding ethnicity, and location constant. In each analysis special cases have been excluded.

Average retention Year 10 to Year 12: 1980-1982. In this analysis, the average school retention rate over three years was used as the criterion since it seemed this would provide a more stable index of school effects than the rate for each year. Data for the regression of average G(10,12) over the three years indicated are shown in Table 3.7.

The data in Table 3.7 suggested that socioeconomic level, ethnicity, and location were all associated with school retention rate. In combination the multiple correlation coefficient between these variables and retention rate was 0.46. That is equivalent to saying that a combination of these variables explains 21 per cent of the variance in average school retention rates. In spite of the potential instability arising from any collinearity among the independent variables, it is worth making a tentative interpretation of the effects of individual variables.

(a) Socioeconomic level. Other things equal, schools serving a population of high average socioeconomic level had a higher average retention rate than schools serving a population of low socioeconomic level. The data in Table 3.7 suggested that there would be an expected difference of 7 percentage points in retention rate between schools at the 25th (lower SEL) and 75th (upper SEL) centiles of socioeconomic level if they were similar in other respects.

(b) Ethnicity. Other things equal, the higher the percentage of students of migrant families entering the school at Year 7, the higher the retention rate of the school. We can illustrate the data in Table 3.7 by the interpolation that a school with 32 per cent of its students from migrant families would have a retention rate nearly 8 percentage points higher than a school with only 3 per cent of its students from migrant families if other characteristics of the schools were equivalent. The conclusion that a high proportion of students of migrant background is associated with a high retention rate is consistent with other research in the field.

(c) Location. Schools in metropolitan regions have, other things equal, higher retention rates than schools in non-metropolitan regions. To illustrate this feature of Table 3.7, we can compare two hypothetical schools of the same average socioeconomic level and ethnicity, but of different location. In this example, the metropolitan school would be expected to have a retention rate some 5 percentage points higher than that of the non-metropolitan school.

An interesting additional point was that the regression coefficient linking retention rate and socioeconomic level was large even though the raw correlation coefficient was not as large as would have been expected, being only 0.14. A possible explanation for this could lie in different patterns of relations between socioeconomic level and retention existing for schools with low and high percentage of students of migrant background, and for metropolitan versus non-metropolitan schools. There was evidence that the expected relation between average socioeconomic level and retention rate was found for metropolitan schools with fewer than 11 per cent of their students of migrant background; but the relation was not so strong for schools with a high percentage of students of migrant backgrounds, or for non-metropolitan students. In terms of ethnicity, it could be that different patterns of educational aspiration might have applied

Table 3.8 Results of Regression Analysis of Retention Rates Year 10 to 12 on Socioeconomic Level, Ethnicity, and Location

Year	R^2	R	Metric coefficients			Standardized coefficients		
			SEL	Eth	Locn	SEL	Eth	Locn
1983	.109	.33	.65	3.4	5.3	.27	.24	.16
1982	.168	.41	.77	4.5	4.0	.35	.35	.14
1981	.176	.42	.87	4.2	3.8	.42	.35	.14
1980	.152	.39	.66	3.1	4.5	.33	.28	.18

for students of migrant families when compared with students of Australian-born parents. Students from migrant families of lower socioeconomic backgrounds may have had similar high aspirations to those from families of higher socioeconomic status. The aggregated effect of this would then be reflected in retention rate. Such an explanation would be consistent with other research work in the field. In the case of non-metropolitan schools, the explanation would be likely to be more prosaic: the coding of social status on the basis of parental occupation is less accurate in non-metropolitan settings.

From the regression analyses, it was possible to obtain results which allowed more detailed probing of the data about these relations than would have been possible from the raw correlation coefficients. In particular the results obtained allowed interpretation of the 'other things equal' form, so necessary to an understanding of the relation between school retention rates and the social environment.

Retention Year 10 to Year 12: Single Years. In Table 3.8 are recorded data arising from the regression of retention rates from Year 10 to Year 12 for each year on the three social area indicators. In general the pattern obtained matched that shown in Table 3.7 and discussed above. For each year studied, retention rates were higher for schools serving an area of higher socioeconomic level, which had a higher percentage of students of migrant background, and which were located in a metropolitan rather than a non-metropolitan area. However the effect of location was not significantly different from zero in 1981 and 1982. In addition two other observations can be made about the data in Table 3.8.

First, the association between the combination of social indicators and retention rate, as reflected in the multiple correlation coefficient (R), was less strong for any given year than for the average over 1980 to 1982. This probably indicates that average retention rate over several cohorts provides a more stable measure of underlying retention than the figure for a given year.

Secondly, the associations between retention rate and socioeconomic level or ethnicity were only slightly less strong in 1983 than 1982. Thus there was no evidence of a big change in the association between school social characteristics and retention rate over these two years.

Table 3.9 Results of Regression Analysis of Retention Rates Year 11 to 12 on Socioeconomic Level, Ethnicity, and Location

Year	R^2	R	Metric coefficients SEL	Eth	Locn	Standardized coefficients SEL	Eth	Locn
1983	.123	.35	.73	2.6	7.4	.29	.18	.22
1982	.137	.37	.76	3.8	4.1	.34	.29	.14
1981	.203	.45	1.04	4.4	3.9	.46	.34	.13
1980	.123	.35	.58	3.0	4.3	.28	.26	.16
1979	.144	.38	.55	2.5	7.3	.26	.20	.26

Single year level transitions. Tables 3.9 and 3.10 record the results of regression analyses using the transitions from Year 10 to Year 11 and from Year 11 to Year 12 for 1979 to 1983 . Two points emerge from these data.

First, the retention rate for the transition from Year 10 to Year 11 was less strongly related to social characteristics than the retention rate for the transition from Year 11 to Year 12. It was especially noticeable that location had almost no effect on the transition from Year 10 to Year 11 in any of the years studied. In other words the differences between metropolitan and non-metropolitan schools were differences which arose in the transition to Year 12 rather than in the transition to Year 11.

The Influence of the School Environment

Even though some of the differences between schools with regard to retention rates were associated with differences in the social characteristics of their intake, there remained differences which could not be explained in this way. Most of the exploration of factors associated with these remaining differences was undertaken in the study of the sixteen schools. However, there were some analyses which could be conducted on the population of Victorian high schools. These analyses provided estimates of the magnitude of the effects of school factors on retention rates.

The term, 'school environment', is perhaps too grand to apply to the variables which were included in this analysis. First, we tested whether differences in retention rate

Table 3.10 Results of Regression Analysis of Retention Rates Year 10 to 11 on Socioeconomic Level, Ethnicity, and Location

Year	R^2	R	Metric coefficients SEL	Eth	Locn	Standardized coefficients SEL	Eth	Locn
1983	.053	.23	.37	2.6	.89	.19	.23	.03
1982	.036	.19	.28	2.8	-2.4	.15	.26	(-.09
1981	.073	.27	.35	3.3	-0.1	.20	.31	.00
1980	.040	.20	.31	2.5	0.1	.17	.22	.00
1979	.048	.22	.37	1.4	2.0	.22	.15	.09

were associated with differences in school size (enrolment), nett of the effects of the social environment of the school. Secondly, we tested whether the type of curriculum offered at Year 12 was associated with differences in retention rate from Year 11 to Year 12. To examine the effect of curriculum, two variables were created. One was a dichotomous variable indicating whether or not the school was conducting a VISE Approved Study Structure: commonly a Sixth Form and Tertiary Entrance Certificate (STC) course. The second was simply the number of approved HSC Group 2 subjects offered in the school. In these analyses the dependent variable was the apparent retention rate from Year 11 to Year 12.

The results of the blockwise regression analyses for retention rates in 1983 and 1982 are shown in Table 3.11. For each year two types of data are recorded. First, the table contains the multiple correlations and total variance explained after the addition of each block and the additional variance accounted for by the addition of each block. Secondly, the table contains the regression coefficients for each of the dependent variables when all variables were included in the analysis.

From the information about the variance accounted for by each block, it could be seen that school size accounted for very little of the variance in retention rates, nett of the effect of the social environment. However, that conclusion needed to be qualified in two ways. First it was possible that part of the reason for the difference found between metropolitan and non-metropolitan schools was due to the difference in their size. However, some other analyses which were conducted suggested that the differences between metropolitan and non-metropolitan schools were not attributable to differences in size. Secondly, the test was for linear relationships and it remains possible that there was a non-linear relationship between school size and retention rate which was not detected.

In addition the information about the variance accounted for by each block suggested that the curriculum variables accounted for a substantial amount of the variance in retention rate. Indeed, in 1983, differences in curriculum accounted for a similar proportion of the variance in retention rate as did differences in the social environment variables.

Information from the regression coefficients in Table 3.11 gave some indication of the size of this effect. In 1983 the offering of an alternative course at Year 12 was associated with a retention rate of nearly 20 percentage points higher than would be the case where other factors were the same but no alternative course was available. For 1982 the corresponding figure was 13 percentage points. In effect, each Group 2 subject which was offered was associated with a retention rate about 2.5 percentage points higher than would otherwise have been predicted. However, these were probably over-estimates of the effects of these curriculum factors because alternative courses were mainly offered in metropolitan schools and were often associated with schools

Table 3.11 Regression of Retention Rates from Year 11 to Year 12 on Social Environment, Enrolment, and Curriculum Variables

		1983 retention					1982 retention				
Block	Independent variable	Metric coeff.	Stand. coeff.	Multi. corr(R)	Block var. (R^2)	Total var. R^2	Metric coeff.	Stand. coeff.	Multi. corr(R)	Block var. (R^2)	Total var. R^2
1	Socioeconomic level	0.92	0.37				0.85	0.38			
	Ethnicity	1.53	0.10				2.59	0.19			
	Location	8.51	0.25	.351	.123	.123	2.96	0.10	.366	.134	.134
2	School Size	0.00	-0.06	.356	.003	.126	0.01	0.10	.377	.008	.142
3	Group 2 subjects	2.44	0.17				2.66	0.13			
	Alternative course	19.71	0.31	.480	.105	.231	12.77	0.22	.439	.051	.193

Table 3.12 Retention Rates from Year 11 to Year 12 for Schools with Different Types of Curriculum Structure[a]

Curriculum structure	1983 retention rate (Year 11-Year 12)		1982 retention rate (Year 11-Year 12)	
	Unadjusted retention rate	Residual retention rate	Unadjusted retention rate	Residual retention rate
Group 1 subjects	55.2	-2.4	48.6	-1.6
One or two Group 2 subjects	57.7	0.5	53.5	2.4
Three or more Group 2 subjects	64.3	8.7	58.9	7.7
Alternative course	73.2	15.5	60.2	9.4
All schools	57.5	0.0	50.3	0.0

[a] Excludes schools with special intake characteristics.

having a high percentage of students of non-English-speaking background. Both were factors already associated with higher retention rates.

To obtain a better estimate of the size of the effect of curriculum factors on retention from Year 11 to Year 12 both the raw retention rates and the residual retention rates for schools of different curriculum structures were compared. The residual retention rate was the difference between the actual retention rate and that which would have been predicted from the social environment of the school (see Table 3.9). The reason for using it in addition to the unadjusted figures was that the effects of ethnicity and location on retention rate had been established for the years prior to the introduction of the new courses. Therefore, it seemed that statistical allowance for the influence of the social environment should be made before examining the effect of school factors. Results of these analyses for 1983 and 1982 have been shown in Table 3.12. On the basis of those data it seemed that, other things equal, schools which offered alternative courses had retention rates from Year 11 to Year 12 about 16 percentage points higher than the average for all high schools, and about 18 percentage points higher than for schools which offered only Group 1 subjects. In 1982, the corresponding figures were 9 percentage points and 11 percentage points respectively. For both 1983 and 1982, offering one or two Group 2 subjects resulted in a small increment in retention ratio but offering three or more such subjects had a rather greater effect.

In Summary

These analyses examined retention rates in Victorian high schools over a number of years. It was found that differences in retention rates were associated with differences in the social environment in which the school was located and with differences in the curriculum offered at Year 12. In terms of the social environment, there were no

Table 3.13 Differences between Projected and Actual Enrolments in Year 12 for High Schools in 1983

Absolute difference		Percentage difference	
Range	Frequency (%)	Range	Frequency (%)
less than -14	2	less than -30	3
-14 to -10	2	-29 to -20	3
-9 to -5	3	-19 to -10	4
-4 to 0	17	-9 to 0	14
1 to 5	30	1 to 10	20
6 to 10	19	11 to 20	17
11 to 15	9	21 to 30	14
16 to 20	11	31 to 40	6
21 to 25	3	41 to 50	6
26 to 30	1	51 to 60	4
greater than 30	3	greater than 60	9
Mean	6.6		19.2
SD	10.1		31.0
1st quartile	1		2
2nd quartile	5		13
3rd quartile	11		30

surprises in relation to results established in other studies. Retention rates were higher in schools serving areas of higher socioeconomic status, in schools with a higher percentage of students of migrant background, and in metropolitan rather than non-metropolitan schools. In terms of the school environment it was found that the type of curriculum offered at Year 12 (alternative courses, Group 2 subjects) had a substantial influence on retention. This result had not previously been established and was an issue pursued in greater detail through the study of the sixteen schools.

Changes between 1982 and 1983

Information presented in Tables 3.1 and 3.2 in this chapter showed an increase in retention rate to Year 12 in 1983 over that of 1982. To examine this change further, projected Year 12 enrolments for 1983, according to information from the Education Department, were compared with actual confirmed February enrolments in Year 12 for 1983. Two measures of the change from 1982 patterns of retention to 1983 were used. The first was the increase in holding power and was simply the difference between the actual and projected enrolment figures:

$$D = A(12,83) - P(12,83)$$

where D = the increase in the holding power of Year 12,

A(12,83) = the actual enrolments in Year 12, and

P(12,83) = the projected enrolments for Year 12.

The second measure was the proportionate increase in Year 12 enrolments in which the measure of holding power was adjusted for school size.

$$E = D \times 100/P$$

where E = the proportionate increase in holding power,

D = the absolute increase in holding power, and

P = the projected enrolments in Year 12.

Patterns of Change

Even though there was a general increase in retention from 1982 to 1983, the increase was not uniform across schools. In Table 3.13 the distribution of increased holding power across high schools has been recorded. Those data show that, on average, actual Year 12 enrolments exceeded projected enrolments by just under seven students, and that the average proportionate difference between actual and projected enrolments was 19 per cent. The difference between the mean (19 per cent)and the median (13 per cent) proportionate change reflected that the distribution was skewed by some very large proportionate changes. Some 24 per cent of schools recorded either no difference between actual and projected enrolments or a negative difference. A negative difference implies that actual enrolments were smaller than those projected. At the other end of the scale, 25 per cent of schools had actual enrolments which exceeded projected enrolments by 11 students or more, and 25 per cent of schools experienced proportionate differences greater than 30 per cent. There was, in these data, evidence that the increased holding power of schools was not uniformly distributed.

Social and School Influences on Increased Holding Power

In order to examine whether differences in the increased holding power of schools were associated with the social and school factors described, regression analyses were conducted using both increased holding power (D) and proportionate increased holding power (E) as the dependent variables.

Results of blockwise regression analyses are presented in Tables 3.14 and 3.15. From these data, it is possible to examine the nett associations between each variable and the measure of increased holding power, and to examine the contribution of each block of variables to the variance in increased holding power.

Social environment. The block of social environment measures contributed only a small amount to the variance in holding power increase and none of the individual variables in the block was significantly associated with holding power increase. The same comment applies with respect to proportionate change in holding power. In Table 3.15 the moderate path coefficient for location emerged only after school size was introduced into the analysis.

Table 3.14 Results of Regression Analysis of Increased Holding Power of Schools in 1983 on Social and School Characteristics

Block	Independent variable	Metric coeff.	Stand. coeff.	Multiple correlation(R)	Block variance	Total variance(R^2)
1	Socioeconomic level	0.08	0.05			
	Ethnicity	0.18	0.02			
	Location	1.37	0.07	0.22	0.04	0.04
2	School size	.006	0.15	0.25	0.02	0.06
3	Group 2 subjects	1.41	0.16			
	Alternative course	11.21	0.29	0.39	0.10	0.15

Table 3.15 Results of Regression Analysis of Increased Holding Power of Schools in 1983 Expressed as Percentage of Projected Year 12 Enrolment on Social and School Characteristics

Block	Independent variable	Metric coeff.	Stand. coeff.	Multiple correlation(R)	Block variance	Total variance(R^2)
1	Socioeconomic level	0.02	0.01			
	Ethnicity	-2.29	-0.08			
	Location	7.34	0.12	0.05	0.00	0.00
2	School size	-0.02	-0.18	0.16	0.03	0.03
3	Group 2 subjects	2.29	0.09			
	Alternative course	15.05	0.13	0.21	0.02	0.05

School size. School size was positively associated with increased holding power such that an increase in size of 100 students was associated with a gain of six additional students in Year 12. This result was not surprising in that in larger schools there would be a bigger base from which to attract students. When the proportionate gain in holding power was considered, there was a negative association with school size. In other words, the bigger proportionate gains occurred in smaller schools. In such schools, a given gain in student numbers would show as a greater proportionate gain than in large schools.

School factors. Both absolute gain in holding power and proportionate gain in holding power were associated with school curriculum factors. In terms of absolute gain in holding power, this block of school factors accounted for 10 per cent of the variance. A school offering an alternative course of study had an average gain of 11 more students in Year 12 over the projected enrolment than an equivalent school which did not offer such a course. The effect size for Group 2 subjects was smaller but significant. A similar result, but of smaller effect size, was found when the proportionate gain in holding power was used as the dependent variable. In general, less of the variance was explained by the combination of variables for the proportionate than for the absolute gain in holding power.

The results obtained from this analysis of the difference between actual and projected enrolments reinforced the results obtained in the cross-sectional studies of each year: the curriculum factors considered were associated with gains in retention as well as higher retention rates. In addition, no association was found between gains in holding power and differences in the measures of the social environment which were used in the analyses.

In Summary

From the official data on retention rates in Victorian high schools it was noted that the proportion of students remaining from Year 10 to Year 12 had been relatively static for three years from 1980 to 1982 but had increased in 1983. In each year there was substantial variation in the retention rates for individual schools. For example, in 1982 when an average of 39 per cent of students from Year 10 had remained to Year 12, a quarter of the high schools had retention rates (Year 10 to 12) in excess of 49 per cent and one quarter had retention rates (Year 10 to 12) less than 29 per cent. These differences between schools apparently arose more from differences in the transition from Year 11 to Year 12 than from the transition from Year 10 to Year 11.

In exploring the ways in which differences in retention rates might be associated with the social characteristics of the area served by the school and with school factors, several interesting results emerged. As would have been expected, high retention rates were associated with a school area of high socioeconomic level, a high proportion of

students with a non-English-speaking background, and a city rather than a country location. Yet, even after allowing for these factors, there remained differences between schools. Some of those remaining differences in retention rates appeared to be associated with differences in the type of curriculum at Year 12. Schools which offered alternatives to Group 1 HSC subjects had higher retention rates than those which did not.

Just as there were differences between schools in retention rates for each year studied, so there were differences between schools in the increased holding power of Year 12 between 1982 and 1983. Even though there was a general increase in holding power observed, about one quarter of schools recorded Year 12 enrolments less than the projected level. Differences between schools in the level of increases in holding power were not associated with differences in the social characteristics of their population but were associated with the curriculum offered. Larger increases were recorded where alternatives to Group 1 studies were offered.

The conclusions to this chapter need to be qualified by the fact that the data used were apparent retention rates. Hence, it was not possible to separate the retention from within the school from the the nett transfers into the school. Notwithstanding that qualification, the effect of curriculum type seems important, and has been investigated further in subsequent chapters.

CHAPTER 4

SIXTEEN SCHOOLS: AN INTRODUCTORY LOOK

The analyses reported in Chapter 3 were concerned with official data on apparent retention rates and other characteristics of the population of Victorian high schools. The results of those analyses both suggested the extent of the association between retention rates and the social background of the school population, and provided an indication that some aspects of the school curriculum were also associated with differences in retention rates. Our examination of school factors related to retention have largely focused on more intensive studies of the sixteen schools. In order to indicate how the sixteen schools related to Victorian high schools in general, this chapter contains a description of the way in which those schools were selected and some of their characteristics.

The Basis for Selection of the Sixteen Schools

It was the initial intention of the study to examine in detail just eight schools. Four of these were to be schools with above expected retention rates and four were to be schools with lower than expected retention rates. The design would have then been simple with the two groups being compared. As the plan for the study developed, some of the problems associated with simplistic studies of extreme groups (see Rowan et al., 1983) become apparent and the design for the selection was modified in two ways. First, five schools were selected from the middle range so that the sample then covered a span of retention rates rather than the extremes. Secondly, three schools with known characteristics were selected. These three schools all had high retention rates. One had a traditional curriculum structure, one had an innovative curriculum structure, and one was notable for the recent surge in its retention rates. Consequently the sample of sixteen schools was made up of two main groups. First, there were thirteen schools selected because they had above expected, about expected, or low expected retention rates. Secondly, there were three schools with high retention with some special features of interest to the study.

The Data Base

The data which were used for the selection of schools were the retention rates for Year 10 to Year 12 over the cohorts completing school in 1980, 1981, and 1982. At the time the selection was begun, the data for 1983 were not available. Hence there were some schools for which the 1983 data represented a change from the average pattern from 1980 to 1982. One, school 14, was selected using a random selection procedure to replace a school which declined to participate. It was a new school which had no

established retention rate over 1980 to 1982 and was placed in the middle retention category. Its retention rate from Year 10 to Year 12 was 52 per cent in 1983. As this was 3 per cent above the expected value for a school in the type of social area it served, it seemed correct to classify it in the middle group of schools.

It was considered important to use the average retention rate for three cohorts rather than a single cohort to provide stability in the selection criteria. In Chapter 3 it was noted that retention rates tended to fluctuate from year to year. The same results have been found in studies of achievement (see Peaker, 1975). Apparently some cohorts in schools respond differently to similar programs provided by the schools.

The Selection Criteria

Studies of school effects have attempted for some time to address the problem of how to separate the effects of home background from those of school. The previous research into retention rates which has been reviewed in Chapter 1 was interpreted as suggesting that school retention rates would be influenced by the background characteristics of the student body: its average socioeconomic level, the percentage of students of non-English-speaking background, and its location. Analyses reported in Chapter 3 confirmed that differences in these characteristics were associated with differences in retention rates. In a study of the effect of school policy and practice on retention rates, it was necessary to make allowance for the influence of these factors on retention rates. As one researcher commented in the context of another study: 'Schools are to be judged on how they play their hands, not upon what cards they have from the deal' (Peaker, 1971). Other writers have made the point differently:

> The effectiveness of the education provided by the school must be assessed by what is achieved, after allowance has been made for the nature of the community in which the school is operating.
> (Comber and Keeves, 1973:195)

In the present study, allowance for these effects was made by comparing actual retention rates with the retention rates which would be predicted on the basis of the population served by the schoo'. The difference, which is called the residual retention rate, would then provide a measure of retention adjusted for differences in social characteristics. In this sense it was analogous to the corrected times used to judge the results of a yacht race. In that sport, the performance of the captain and crew is assessed not on the order of crossing the finishing line but by the time taken when the size of the yacht and its sails have been taken into account (see Comber and Keeves, 1973:195).

According to the results of the regression analysis presented in Chapter 3, the expected average retention rate from Year 10 to Year 12 of Victorian high schools for

1980 to 1982 could be predicted on the basis of social characteristics of its intake by means of the following equation:

$$\hat{G}_{(10,12)} = (0.75 \times S) + (3.83 \times M) + (4.69 \times L) - 13.34$$

where $\hat{G}_{(10,12)}$ = the expected rate from Year 10 to Year 12,

S = the average socioeconomic level of the school intake

M = the quartile score reflecting proportion of students of non-English speaking background, and

L = the location of the school (metropolitan/non-metropolitan)

Thus the residual retention rate would be

$$R_{(10,12)} = C_{(10,12)} - \hat{G}_{(10,12)}$$

where $R_{(10,12)}$ = the residual retention rate

$G_{(10,12)}$ = the actual average retention rate from Year 10 to Year 12

$\hat{G}_{(10,12)}$ = the expected average retention rate as defined above.

Table 4.1 records some statistics, for the period 1980 to 1982, concerning the residual retention rates. The mean was zero by definition, reflecting the fact that positive residuals (greater than expected) balance negative residuals (less than expected). The standard deviation was 10.5 indicating that two-thirds of all schools had actual retention rates within 10 per cent of that predicted on the basis of the equation above: 16 per cent of schools had retention rates more than 10 per cent lower than that expected on the basis of their social characteristics and 16 per cent had retention rates more than 10 per cent above that which would have been expected. The minimum residual corresponded to a retention rate of 21 per cent below that expected and the maximum residual corresponded to a retention rate nearly 34 per cent above that expected. In brief there remained differences in retention rates between schools, even after allowing for the influence of differences in the social characteristics of the school intakes. These remaining differences could have reflected differences in the environment of the school, or the intake of the school which had not been captured by the indicators described. Alternatively they could have reflected differences in the curriculum and organization of the schools as suggested in the latter part of Chapter 3.

Selection Procedures

Using these criteria, schools were selected in four groups. The first was a group of four schools with higher than expected retention rates, which for convenience has been called the 'high retention group'. The second was a group of four schools with lower than expected retention: known as the 'low retention group'. The third was a group of schools with retention approximately what would be expected, which has been called the 'middle retention group'. The fourth was the group of schools with higher than expected

Table 4.1 Residuals from the Regression of Retention Rate on Social Characteristics

	Average retention	Retention 1982	Retention 1981	Retention 1980
Mean residual	0.0	0.0	0.0	0.0
Standard deviation	10.5	12.8	11.9	11.5
Minimum	-20.9	-29.7	-28.7	-24.3
Maximum	33.6	40.9	43.1	39.8
Durbin Watson Statistic[a]	1.81	1.80	1.95	1.80

a Statistic indicates that no significant autocorrelation of residual exists (Chatterjee and Price, 1977:125-128).

retention rates but selected because they possessed other special features. For most of the discussion in Chapter 6 (and the supporting appendixes) those schools have been considered with the high retention group.

The high retention and low retention groups. To select these groups, four schools with average retention rates more than 20 per cent above that expected, and four schools with average retention rates more than 14 per cent below that expected were identified. The different cut-off points were necessary because the distribution of the residuals was asymetrical. From those identified, schools were chosen with similar demographic characteristics for each group. Each group contained a non-metropolitan school, and each contained three metropolitan schools. In each group, a school of low, middle, and high socioeconomic level was chosen from the metropolitan area. Where possible, the schools were chosen so as to serve similar types of area in other respects. One of the high retention schools which was approached declined to participate and was replaced.

The middle retention group. The middle group of schools consisted of four metropolitan and one non-metropolitan, selected from among those schools with residual retention rates between the bounds specified above. In the selection process, schools with a single-sex student body and schools with selective intakes were excluded. One selected metropolitan school declined to participate and was replaced.

The special interest group. Three schools were selected so as to ensure that certain issues were embraced within the sample. All of these schools had high residual retention rates and were known to have special characteristics. One (School 2) had experienced a notable surge in retention rates in 1982 and 1983. Another (School 1) was known to have a traditional curriculum structure in the senior school. The third (School 9) had an innovative structure in which it offered only an approved study structure in Year 12 with no Group 1 HSC subjects. As all had retention rates above the expected value, in much of the discussion they have been grouped with the high retention schools.

The Schools

Characteristics of the Schools

Table 4.2 lists the sixteen schools under category headings and gives both residual retention rates and raw retention rates. It also contains some information about demographic characteristics of the schools which were taken into account during the selection process: socioeconomic level, ethnicity, and location.

Some other information which emerged during the study as relevant to an understanding of retention rates has also been recorded: student transfers into the school at senior levels, and the type of curriculum offered at the school. Information about the curriculum type was derived from the school visits and was more comprehensive than that from official records used in Chapter 3.

The first two columns of Table 4.2 contain information about the average retention rate from Year 10 to Year 12 over the period 1980 to 1982. The first column gives the residual retention rate for this transition: defined as the difference between the actual and expected retention rates. Those figures were the primary data used to select the schools. The second column contains the average retention rates from Year 10 to Year 12 over the period 1980 to 1982. The order of the residual retention rates generally corresponds to that of the actual retention rates. However, on the basis of actual retention rates, School 12 would be a high retention school but the residual rate shows it to be only a moderate amount above the expected value. It was the highest of the middle category of schools.

The third, fourth, and fifth columns of the table give the 1983 retention rates for the transition from Year 10 to 12, Year 10 to 11, and Year 11 to 12 for the sixteen schools. The next two columns provide an index of the transfers into the school in 1983 in Year 10 and Year 12. The indices are the number of transfers into the school at the year level expressed as a percentage of the 1982 enrolment for the preceding year level. Thus they are calculated on the same base as the apparent retention rates. In schools where the figure is high at both Year 10 and Year 12, there is probably a high degree of mobility in the school population. Where the figure is much higher at Year 12 than Year 10, it probably indicates transfers into the school at the senior level in order to undertake study there. The following two columns contain information about the socioeconomic level and ethnic composition of the school populations. The information is derived from data concerning all government high schools in Victoria. The last column indicates the curriculum type, expressed as one of three groupings of Year 12 curricula: schools that offered HSC Group 1 subjects only; schools that offered HSC Group 1 subjects and one or two Group 2 subjects; and schools that offered HSC Group 1 subjects and three or more Group 2 subjects or an alternative course, or an alternative course only.

Table 4.2 Characteristics of Schools with High, Medium, and Low Retention Rates

School number	Retention rates 1980-82: Residual retention Yr10-12	Retention rates 1980-82: Average retention Yr10-12	Retention rates 1983[a]: Yr10-12	Retention rates 1983[a]: Yr10-11	Retention rates 1983[a]: Yr11-12	Social characteristics (high schools): SEL[b]	Social characteristics (high schools): Eth[c]	Transfers into school 1983(%): Yr10	Transfers into school 1983(%): Yr12	Curric. type[d]
Low retention										
7	-19	17	26	89	35(36)	33	64	14	5	3
4	-15	28	35	107(101)	40(40)	43	34	9	3	2
5	-14	27	33(26)	62	62(49)	50	4	12	0	1
8[e]	-14	24	33	77	55(59)	52	5	4	7	1
Middle retention										
15	-8	36	40	98	66(62)	49	15	12	9	2
13	-7	37	35	81(73)	46(39)	48	12	12	4	1
16[e]	0	34	54	80	73(75)	48	3	6	6	3
14	(+6)[f]	-	55	77	82(78)	52	7	1	8	1
12	+12	60	82	98	85(9.)	49	33	7	31	1
High retention										
11[e]	+21	54	52	86(76)	63(62)	51	2	3	6	2
3	+25	71	80	79	101(92)	47	37	12	30	2
10	+25	62	74	85(78)	82(83)	50	2	5	19	2
6	+32	65	77	98	85(80)	29	52	19	16	3
High retention: Special										
9	+19	60	110	81	121(124)	45	13	20	64	3
2	+21	63	101	90	114(112)	42	53	9	21	3
1	+21	71	65	112	71(69)	56	13	5	13	2

a Retention rates based on February enrolments. July figures have been shown in brackets.
b Average socioeconomic level (see Chapter 2).
c Percentage of students with a non-English-speaking family background.
d Based on 1 = HSC Group 1 only; 2 = HSC Group 1 and one to two Group 2 subjects, 3 = HSC Group 1 and/or alternative course.
e Denotes non-metropolitan school.
f Estimate based on 1983 figures.

In selecting the high and low retention schools for further study, a conscious attempt was made to provide as wide a range as possible within the two groups as far as the three social environment factors already shown to be pertinent to retention were concerned. As can be seen from Table 4.1, the school populations in both groups contained both high and low socioeconomic and migrancy levels. In addition, both groups contained schools from different locations, not only metropolitan and rural, but also inner and outer suburban and eastern and western suburban. The schools in the middle group were from a variety of locations, but there was less variety in their socioeconomic levels.

Changes in 1983

It has been noted that schools were selected on the basis of data up to and including 1982. As retention rates based on February enrolments for 1983 became available, it was apparent that there were some variations from previously established patterns. Some explanation of those changes is needed. In examining the changes, account has been taken of a general increase of about 6 percentage points in the retention rate from Year 10 to 12 across Victorian high schools and allowance has been made for a year-to-year fluctuation of up to 7 percentage points. Hence, for the Year 10 to 12 retention, comment has been made only where the increase in retention rate exceeded 13 percentage points. Even though this is a fairly arbitrary figure, it has some justification.

Two of the medium category schools had recorded substantial increases in the Year 10 to 12 retention rates from 1982 to 1983. School 12, which was the highest of the middle group even for 1980 to 1982, recorded an increase to 87 per cent. This would have shifted it to the upper category. The increase was due to an increase in the retention from Year 11 to 12 from 71 per cent in 1982 to 85 per cent in 1983. A possible explanation for this could have been the high proportion of transfers to the school between 1982 and 1983. There was the prospect of a reorganization of secondary school provision in that area at the time which may have prompted some transfers. School 16, a non-metropolitan school, recorded an increase in retention from Year 10 to Year 12 from 38 per cent in 1982 to 54 per cent in 1983. This increase would have made it comparable to School 11, the high retention country school. The change did not appear to result from an influx of transfers but was associated with changes within the school itself. It was a result of an increase in the retention rate from Year 11 to Year 12 rising from 52 per cent in 1982 to 73 per cent in 1983.

There were two big increases in retention among the high retention, special interest schools. School 2 had been chosen for this reason and its retention rate from Year 10 to Year 12 increased from an already high average of 63 per cent (66 per cent in 1982) to 101 per cent. This was due to an increase in the retention from Year 11 to Year

12 (from 89 per cent in 1982 to 114 per cent in 1983) rather than from Year 10 to Year 11. Part, but not all, was attributable to transfers, and the issues associated with the pattern of retention in this school are discussed in Chapter 6. School 9, which had an innovative curriculum (only an Approved Study Structure) experienced an increase in retention to Year 12 which appeared to be mainly due to a very large number of transfers into the school at Year 12.

The comments so far have referred to retention to Year 12. There were some schools which recorded substantial increases in the retention rate from Year 10 to Year 11. Most notably, School 15 recorded a retention rate for this transition of 98 per cent in 1983. In the years 1980 to 1982, the figures had been 64, 69, and 60 per cent respectively. Schools 4, 7, and 6 also showed an increase in retention to Year 11 which was worth noting but was not as large as for School 15. In these cases, the change was a continuation of a trend over 1981 and 1982, and it appeared possible that the changes might flow on to Year 12 in subsequent years. School 1 recorded an increase in retention to Year 11 in 1981 but this appeared to be due to transfers into the school at this level. In the descriptions of the schools in the following chapters, particular attention has been paid to commenting on school factors which may have been linked to these changes in retention patterns.

The Influence of Transfers

Most of the data in this report are concerned with apparent retention rates. In the data contained in Table 4.2, it was evident that transfers into a school may have made important contributions to the apparent retention rates for some schools. Based on transfer information supplied from records for the sixteen schools, it was possible to examine the apparent retention rates from Year 11 to Year 12 in relation to internal retention rates - the retention only of students already enrolled in the school.

In this analysis, retention rates based on July 1983 enrolments have been used because the transfer records referred to the period from July 1982 to July 1983. As shown in Figure 4.1, the apparent retention rates were closely correlated with the internal retention rates. The correlation coefficient was 0.8. However, this general association tended to mask the different impact of transfers on different schools. There was a high number of transfers into Year 12 at Schools 9, 12, and 3. In general there was a tendency for the transfers to a school to be greater where the internal retention rate was higher ($r = 0.3$).

Transfers into and out of schools influence the apparent retention rates measured at different times during the year. The most marked examples have been shown in Tables 4.2. Schools, 3, 5, and 13 had noticeably lower retention rates for Year 11 to Year 12 in 1983 when based on July figures than when based on February enrolments. By

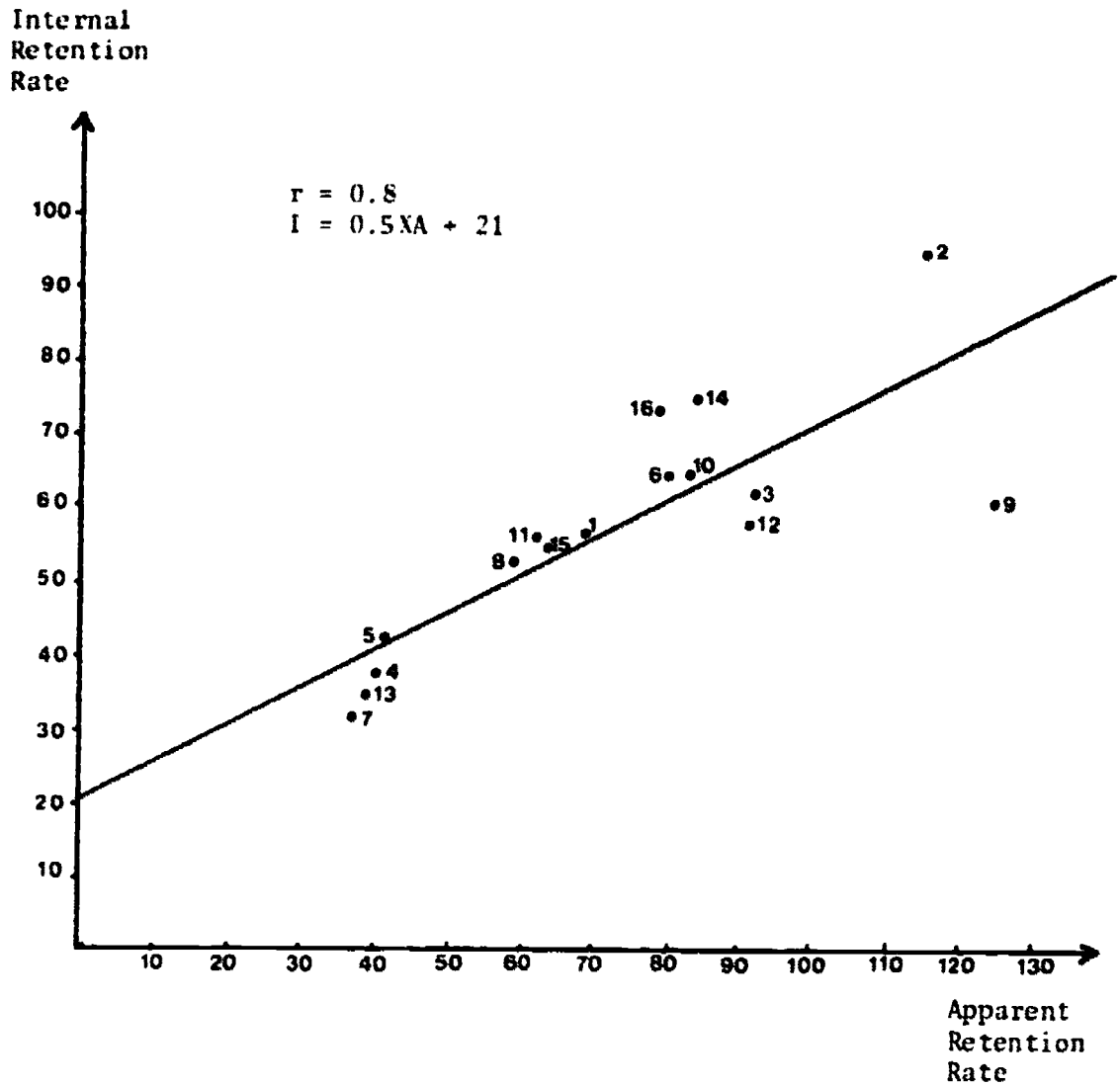


Figure 4.1 The Association between Internal and Apparent Retention Rates from Year 11 to Year 12 in 1983

contrast, School 12 had a higher retention rate for the same transition according to July data rather than February data. Such variations can arise not only from transfers out or in between February and July in the year being studied, but also from transfers in or out for the same period in the previous year, when the cohort was in Year 11.

CHAPTER 5

STUDENTS IN YEAR 10 AND YEAR 12

In previous chapters, the focus of attention has been on schools and the ways in which differences in school policy and practice appeared to be associated with differences in retention rates. The present chapter is concerned with students; their reasons for deciding to stay at school and their views of school life. For the most part the data have been drawn from questionnaires administered to students in the sixteen schools selected and interviews with small groups of students in fifteen of these schools. At one point, these data have been supplemented by information from another study based on a much larger sample. This supplementary information drawn from the ACER Post-compulsory Schooling Project (October survey) has been used to provide a base which enables Year 10 high school students to be compared with Year 10 students in technical schools and which enables more accurate generalizations.

Staying at School: Year 10 Students

The questionnaire to Year 10 students in the sixteen schools contained three items related to students' education and work plans. Respondents were asked initially when they planned to leave school and were given three alternative response categories: before completing Year 12, after completing Year 12, and undecided. Each response category led to a further question concerning the importance of various influences on the decision to stay at school or leave. A later item asked students to give some indication of their post-school job and study plans, both from their own point of view and from the points of view of their parents, teachers, and friends.

Intentions Regarding School Leaving

Table 5.1 shows the distribution of students across three response categories, with just over half the students stating their intention to complete Year 12 and one quarter remaining uncertain. The frequency figures given in the table have been weighted to allow for representation from each of the sixteen schools in proportion to the year level enrolment at each school. Estimates of retention rates from Year 10 to Year 12 in Victorian high schools over the period 1980 to 1983 (discussed in Chapter 3) showed that the average apparent retention rate from 1980-82 remained stable at about 39 per cent; the Year 10 to 12 apparent retention rate for 1983 (February) was 46 per cent. It is difficult to predict from the information to hand whether this increase will be maintained in future years. This is especially true since the average retention rate in the sixteen schools studied was a little higher for 1983 than the retention rate for

Table 5.1 Intentions Regarding School Leaving: Year 10 Students from Two Surveys

Sixteen school study[a]		October survey (high schools)[b]	
Plan to leave school	%	Plan to leave school	%
Before completing Year 12	24	At the end of Year 10	9]28
		At the end of Year 11	19]
After completing Year 12	53	At the end of Year 12	51
I haven't made up my mind	24	I haven't made up my mind	20

a See Chapter 2 for details.
b Based on 1437 students from 28 schools.

Victoria as a whole. However, one could conjecture that, while there could be some loss from the 53 per cent of students who planned to remain at school to Year 12, there would also be some proportion of the undecided 24 per cent who will opt to stay on to Year 12. This general pattern was supported by evidence from a study in progress at the ACER which involved a larger survey of 1437 Year 10 students from 28 randomly selected Victorian high schools (Ainley, Batten, and Miller, 1983). In that survey, 51 per cent of Year 10 students indicated that they would remain at school to the end of Year 12, 19 per cent said that they would leave after completing Year 11, 9 per cent would leave at the end of Year 10, and 20 per cent were undecided. Given that the larger survey was conducted later in the year (and hence fewer students were undecided), the results were consistent with those from the sixteen schools. On this basis it seemed likely that the increased retention rates observed in 1983 were likely to be sustained or, at least, maintained over the next few years.

Influences on Decision to Stay at School or Leave

Tables 5.2, 5.3, and 5.4 show how important the various reasons were in influencing the students in the three response groups in the sixteen schools to stay on at school or leave. In each table, the reasons are listed in perceived order of importance. For all three groups, the least important influences were the opinions of teachers and the plans of friends. Parents' opinions were of little importance to early leavers and to the undecided group, but they were of greater importance in their influence on students who had decided to stay on to Year 12.

Enjoyment of school and interest in schoolwork were middle-range reasons for students in the three groups deciding to stay on at school or leave. There was unanimity also in the three groups in the type of reason that had most influence on their decision, although the rank order of individual items varied from group to group. The most important reasons were connected with school achievement and future career. For the early leavers, these reasons were: earning money, having a job, and having enough

Table 5.2 Year 10 Students : Influences on Decision to Leave School before Year 12

Reason	Mean rating[b] (1-4)		
	Males	Females	Persons
I want to earn my own money	3.54	3.61	3.58
I will have enough education for what I want to do	3.14	3.26	3.22
I will have a job to go to	3.07	3.06	3.06
I think it is better to get into the job market early	3.01	2.73	2.84
I am not doing well enough at school	2.81	2.56	2.69
School work is not interesting	2.59	2.46	2.51
I do not enjoy school	2.48	2.53	2.52
I could not do subjects that would be useful to me	2.56	2.41	2.47
My parents do not want me to stay on at school	2.01	1.60*	1.78
Most of my friends plan to leave school early	1.88	1.65	1.75
My teachers do not think I should stay at school	1.79	1.62	1.69

a N = 124
b 1 = not at all important;
2 = slightly important;
3 = fairly important;
4 = very important.
* Difference significant at the 5 per cent level allowing for a design effect factor of 2.

Table 5.3 Year 10 Students : Influences on Decision to Complete Year 12

Reason	Mean Rating[b] (1-4)		
	Males	Females	Persons
I need a pass at Year 12 for my future career	3.65	3.75	3.71
I do well in my school work	3.54	3.57	3.56
I can do subjects that are useful to me	3.50	3.57	3.54
My parents want me to stay at school	3.11	2.85[c]	2.95
School work is interesting	2.89	2.76	2.81
I enjoy school	2.68	2.72	2.71
My teachers think I should stay at school	2.44	2.33	2.37
Most of my friends plan to stay on at school	1.97	1.90	1.92

a N = 473
b 1 = not at all important;
2 = slightly important;
3 = fairly important;
4 = very important.
c Difference appoaches significance at the five per cent level after allowing for design effects. Without allowance for the clustered sample, the difference would appear to be significant.

Table 5.4 Year 10 Students[a] : Potential Influences on Students who Were Undecided

Reason	Mean Rating[b] (1-4)		
	Males	Females	Persons
Doing well in my school work	3.54	3.68	3.61
Being able to do subjects that are useful to me	3.58	3.65	3.61
Not being able to find a job	3.15	3.24	3.20
Needing a pass in Year 12 for my future career	3.06	3.30	3.19
School work is interesting	3.00	3.11	3.06
Enjoying school	2.90	3.09	3.00
My parents wanting me to stay at school	3.07	2.91	2.99
Having no other plans	2.58	2.60	2.59
My teachers thinking I should stay at school	2.31	2.35	2.33
My friends deciding to stay at school	1.94	2.06	2.00

a N = 210.
b 1 = not at all important; 2 = slightly important; 3 = fairly important; 4 = very important.

education for a future career. The three reasons that were most important to both the undecided group and the Year 12 completion group were: doing well at school, doing useful subjects, and needing a pass in Year 12 for a future career, with the latter reason being most important to those students who had already decided to complete Year 12, and 'doing well at school work' being most important to the undecided group.

Ratings given to potential influences have been recorded separately for males and females as well as for students overall. Few differences were found between males and females in the importance which they accorded to the stated reasons for staying at or leaving school, though there was a tendency for males to rate parents' wishes as more important than did females.

Chapter 1 stated that the factors studied in the sixteen schools would be grounded in the notion that young people would remain at school if they believed school was a satisfying place in terms of their immediate experience and if they believed that there were benefits to be gained in the long run from what schools offered, at least in comparison with the alternatives available. It would seem from the evidence provided by the student questionnaire that the educational decisions of these Year 10 students were more strongly governed by personal investment factors than by school enjoyment factors.

Post-school Intentions

Students were asked for a general indication of their plans after leaving school, and also for an indication of parents' and teachers' opinions and friends' plans. Table 5.5 gives the overall percentage frequencies for eight combinations of employment and education and a 'don't know' category.

Table 5.5 Year 10 Students : Intentions after Leaving School

Percentages recorded	Own opinion	Parents' opinion	Teachers' opinion	Friends
Full-time study alone	21	20	12	7
Full-time study and part-time job	3	2	0	1
Full-time study/full-time job[b]	6	6	1	4
Part-time study and part-time job	4	2	1	2
Full-time job and part-time study	6	3	0	1
Full-time job alone	49	43	10	42
Part-time job alone	1	1	0	5
Part-time study alone	2	3	1	1
Don't know	8	21	75	38

a N = 810 valid cases.

b This response is interpreted as indicating that the student would choose either of these two options.

Nearly all students appeared to know what they wanted to do when they left school: there were only 8 per cent in the 'don't know' category. Although there were entries in all eight categories, it was clear that most students (76 per cent) were looking for a full-time commitment to one area, whether it was employment (49 per cent) or further study (21 per cent); a further 6 per cent indicated that they would choose either a full-time job or full-time study.

As far as the other groups were concerned (parents, teachers, and friends), there was a close matching of student opinion and parent opinion in the eight categories. A reasonably high proportion of students (38 per cent) did not know their friends' intentions, perhaps indicating that post-school plans did not comprise an area where peer-group pressure was strongly felt. It certainly did not appear to be an area where teacher opinion was sought by students, as 75 per cent indicated that they did not know what their teachers thought about their post-school occupations. Both of these results were consistent with the low importance ratings accorded to friends' plans and teachers' opinions in Tables 5.2, 5.3 and 5.4.

Tables 5.6, 5.7, and 5.8 contain the percentages recorded for the various categories when the student group was broken up into its three components: the prospective early school leavers, those planning to complete Year 12, and students who were still undecided.

As might be expected, most of those planning to leave before Year 12 (84 per cent) planned to take a full-time job, either alone or combined with part-time study. Probably because their post-school futures were closer to hand than those of the other two groups, the percentage of uncommitted students was smaller in this group (3 per cent, compared with 9 and 11 per cent).

Table 5.6 Year 10 Students[a] : Intentions after Leaving School for Early Leavers

Percentages recorded	Own opinion	Parents' opinion	Teachers' opinion	Friends
Full-time study alone	6	9	8	6
Full-time study and part-time job	1	2	0	1
Full-time study/full-time job[b]	1	2	1	2
Part-time study and part-time job	3	1	1	0
Full-time job and part-time study	5	2	0	1
Full-time job alone	79	66	17	51
Part-time job alone	1	1	1	5
Part-time study alone	2	2	1	1
Don't know	3	15	73	34

a N = 183 valid cases.
b This response is interpreted as indicating that the student would choose either of these two options.

Table 5.7 Year 10 Students[a] : Intentions after Leaving School for those Planning Year 12

Percentages recorded	Own opinion	Parents' opinion	Teachers' opinion	Friends
Full-time study alone	33	30	14	9
Full-time study and part-time job	6	2	0	1
Full-time study/full-time job[b]	7	8	1	6
Part-time study and part-time job	6	2	0	2
Full-time job and part-time study	4	1	0	1
Full-time job alone	32	31	8	34
Part-time job alone	0	0	0	5
Part-time study alone	3	2	0	1
Don't know	9	24	76	41

a N = 423 valid cases.
b This response is interpreted as indicating that the student would choose either of these two options.

Table 5.8 Year 10 Students[a] : Intentions after Leaving School for those Undecided

Percentages reco-ded	Own opinion	Parents' opinion	Teachers' opinion	Friends
Full-time study alone	10	15	11	7
Full-time study and part-time job	1	1	1	0
Full-time study/full-time job[b]	4	3	1	2
Part-time study and part-time job	3	2	0	1
Full-time job and part-time study	7	3	1	0
Full-time job alone	64	51	11	47
Part-time job alone	1	1	0	4
Part-time study alone	0	3	1	1
Don't know	11	21	75	39

a N = 189 valid cases.
b This response is interpreted as indicating that the student would choose either of these two options.

Among the group planning to complete Year 12, students were equally committed to full-time study and full-time work (39 per cent in the first category and 36 per cent in the other). The undecided group were more similar in their plans to the early school leaver group than the Year 12 group, with 71 per cent indicating that they would like a full-time job and only 11 per cent preferring full-time study.

Although more than one-third of the students in each group did not know their friends' intentions, for those who did, the intention pattern was similar to the students' own intentions. Parents' opinions showed a similar trend, although there was a slight tendency apparent in the early leavers and undecided groups for students to believe that their parents had a stronger preference for a full-time study commitment than they did themselves.

Staying at School: A Second Data Base

As already mentioned, the October survey also examined reasons given by Year 10 students for staying at school or leaving. The data from the sixteen schools was collected during the second half of second term in 1983. The other study gathered data by questionnaire during October 1983, and involved a larger number of students in a larger number of randomly selected schools. In all, there were 1437 students from 28 high schools and 519 students from 11 technical schools. The response rate from these schools was 98 per cent. The list of reasons which students were asked to rate differed from those in the study of the sixteen schools because the focus of the study was a little different. Despite such differences, the second study was able to be used to check the validity of the data in the sixteen school study and provide additional information.

Reasons for Planning to Leave School

Table 5.9 contains an indication of the importance accorded to various reasons for leaving school, given by students who planned to leave school at the end of Year 10. Even though these data are not strictly comparable with those in Table 5.2, which concerned reasons for leaving before Year 12, the general pattern is similar with the most importantly rated reasons being 'getting a job', 'earning my own money', 'having enough education', 'starting an apprenticeship', and 'getting into the job market early'. The middle-ranked reasons concerned enjoyment of school, interest in school work, or relative success in school. The least importantly rated reasons were the advice of teachers and parents or the plans of friends.

Differences between males and females were evident among high school students only for the reason 'I intend to start an apprenticeship', with males rating this more important than females. This applied among technical school students as well as among high school students.

Students were also asked to indicate which was the most important influence on their decision to leave school. Detailed results have been shown in Figure 5.1. Generally the reason for planning to leave school, which was most often designated by male students as most important, was 'to start an apprenticeship', followed by either hoping 'to get a job' for high school students, or wanting 'to earn my own money' for technical school students. For female high school students, the three reasons most frequently designated as the most important factors in planning to leave school were 'to earn my own money', 'to start an apprenticeship', or 'not enjoying school'. In the case of female technical school students, the two reasons most frequently indicated as most important were 'to get a job' and 'not enjoying school'. Overall these results point to the importance of independence, seen in relation to work, as being prominent in the plans of Year 10 students to leave school.

Reasons for Planning to Stay at School

Table 5.10 contains information from the larger sample of students concerning reasons for staying at school beyond Year 10. Since it does not separate those planning to leave at the end of Year 11, or those who were undecided, from those continuing to Year 12, it is not strictly comparable with Table 5.3. In Table 5.10, reasons for continuing at school are listed in descending order according to the importance ratings given by high school students.

In examining the pattern for high school students, the most important reasons for continuing were related to future career, occupation, and success at school. Enjoyment of school and interest in school work were middle-ranked reasons for continuing at school. Parents' wishes were considered to be of comparable importance to these

Table 5.9 October Survey, Year 10 Students: Influences on Decision to Leave School at the End of Year 10

I will leave school because:	Mean rating[ab]					
	High schools[b]			Technical schools[c]		
	Males	Females	Persons	Males	Females	Persons
I hope to get a job	3.66	3.59	3.62	3.58	3.83	3.70
I want to earn my own money	3.21	3.26	3.23	3.50	3.67	3.52
I will have enough education for what I want to do	2.94	2.83	2.88	3.00	1.90*	2.89
I intend to start an apprenticeship	3.63	2.06***	2.82	3.61	2.09***	3.45
I think it is better to get into the job market early	2.79	2.85	2.82	3.19	3.10	3.18
I will have a job to go to	2.85	2.62	2.73	3.21	2.82	3.16
I do not enjoy school	2.65	2.65	2.65	2.53	2.92	2.58
School work is not interesting	2.34	2.55	2.44	2.33	2.20	2.32
I am not doing well enough at school	2.48	2.37	2.42	2.14	2.08	2.13
I could not do subjects that would be useful to me	2.08	2.38	2.24	2.04	1.80	2.02
My teachers do not think I should stay at school	1.56	1.49	1.52	1.70	1.56	1.68
My parents do not want me to stay on at school	1.29	1.43	1.36	1.53	1.45	1.52
Most of my friends plan to leave school early	1.23	1.26	1.24	1.52	1.20	1.49

a 1 = not at all important; 2 = slightly important; 3 = fairly important; 4 = very important.
b N = 128.
c N = 105.
*** difference significant at the 0.1 per cent level.
* difference significant at the 5 per cent level.
(Design effect factor has been assumed as 2).

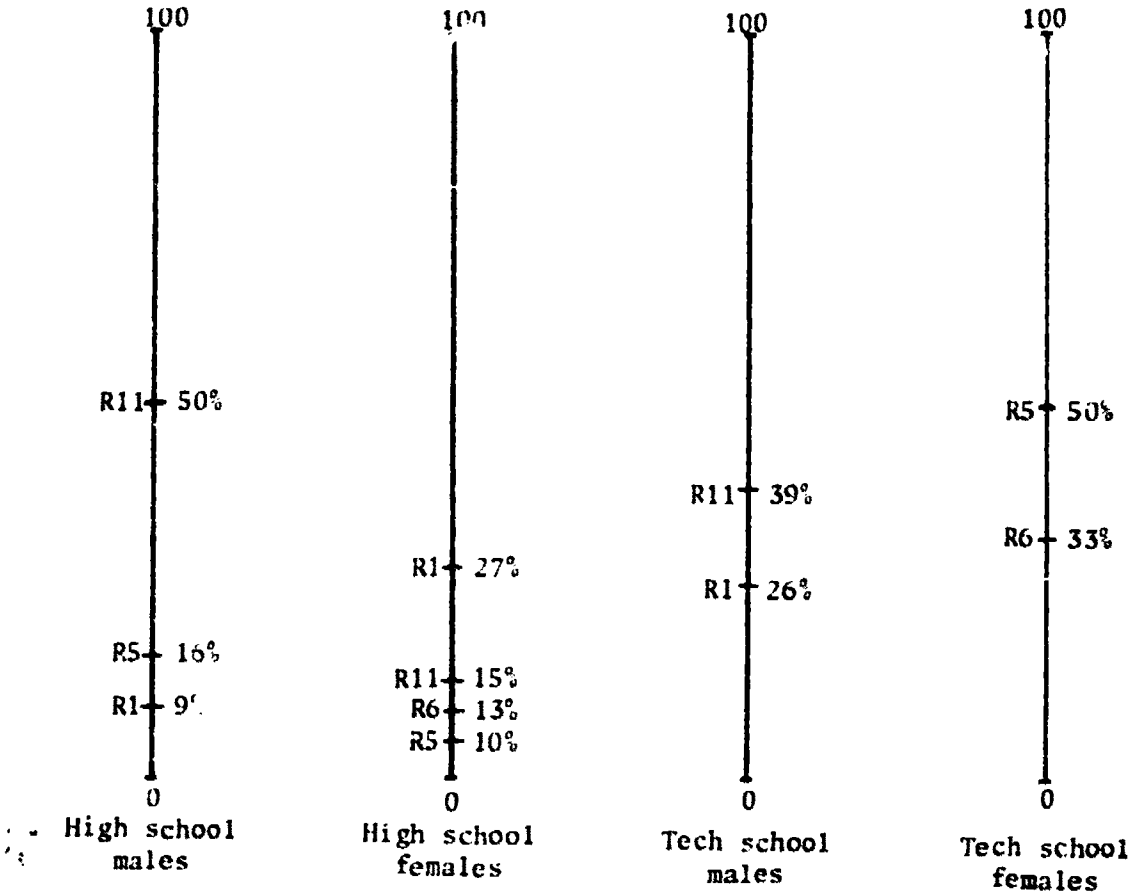


Figure 5.1 October Survey, Year 10 Students: Reasons for Planning to Leave School Rated as Most Important

Note: R11 = I intend to start an apprenticeship.
R1 = I want to earn my own money.
R5 = I hope to get a job.
R6 = I do not enjoy school.

factors. The least important influences were the opinions of teachers and friends. Negative factors such as not being able to get a job, not being able to get an apprenticeship, or having no other plans were rated among the less important influences on staying on at school.

Among high school students there were some differences between males and females. Females rated school-related influences (e.g. doing well in school work, school is interesting, enjoying school) as more important than did males. This aspect of the different ratings accorded to school factors by females and males was consistent with earlier observations and will be noted in a subsequent analysis. Female students also attached more importance to the requirements of a future career than did males. Among technical school students, not being able to get an apprenticeship tended to be rated as more important by males than females.

Table 5.10 October Survey, Year 10 Students: Influences on Staying at School beyond Year 10

I will stay on at school if	Mean rating[ab]					
	High schools[b]			Technical schools[c]		
	Males	Females	Persons	Males	Females	Persons
I need to complete Year 11 · 12 for my future career	3.51	3.66*	3.60	2.99	3.27	3.04
I can do subjects that are ·.ful to me	3.47	3.53	3.51	3.35	3.47	3.37
Another year at school co · help me to get a job	3.31	3.41	3.37	3.39	3.30	3.37
I am doing well in my sch · work	3.25	3.44**	3.36	3.09	3.15	3.10
I find school work int ·es ing	2.46	2.62*	2.56	2.22	2.62*	2.31
My parents wanted me to · ay at school	2.53	2.56	2.55	2.62	2.49	2.60
I am enjoying school	2.40	2.55*	2.49	2.14	2.27	2.17
I cannot find a job	2.36	2.50	2.45	2.57	2.77	2.61
I have no other plans	2.12	2.28	2.22	2.17	2.46	2.23
My teachers think I should stay on at school	2.07	2.09	2.08	1.94	1.89	1.93
I cannot get an apprenticeship	2.12	2.00	2.05	2.60	2.20*	2.20
My friends decide to stay at school	1.34	1.40	1.38	1.45	1.30	1.42

a 1 = not at all important; 2 = slightly important; 3 = fairly important; 4 = very important.
b N = 1292.
c N = 402.
** difference significant at the 1 per cent level
* difference significant at the 5 per cent level
(Design effect factor has been assumed as 2).

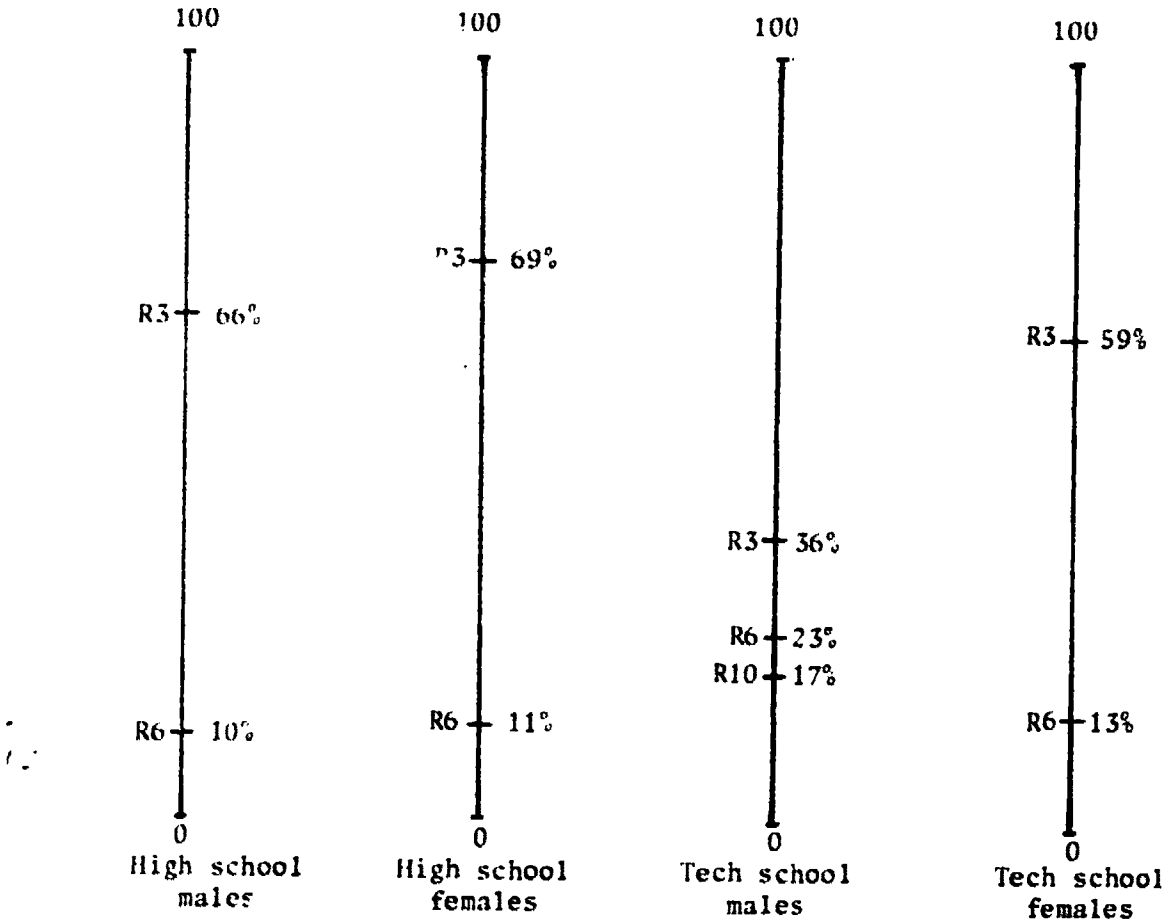


Figure 5.2 October Survey, Year 10 Students: Reasons for Planning to Stay on at School Rated as Most Important

Note: R3 = I need to complete Year 11 or 12 for my future career.
R6 = Another year at school could help me to get a job.
R10 = I cannot get an apprenticeship.

The results of students' indications of the most important reason for returning to school, as presented in Figure 5.2, showed two reasons standing out from the others. The reason most frequently nominated as most important by all groups was 'I need to complete Year 11 or 12 for future career'. The second most frequently nominated reason was 'another year at school could help me to get a job'. For technical school male students, not being able to get an apprenticeship was also frequently nominated as the most important reason for returning to school.

Staying or Leaving: A Summary

The data from the larger sample were broadly consistent with those from the students in the sixteen schools. In general, personal investment factors seemed to influence the educational decisions of Year 10 students more strongly than did school enjoyment factors. Nevertheless, school enjoyment factors were of moderate importance to students in deciding whether to stay at school or to leave.

Student Interviews

The analyses presented in Chapter 3 suggested a relationship between curriculum offerings and retention rates. Some of the reasons given by students in questionnaire responses suggested that 'doing useful subjects' was an important reason for staying on and that satisfaction with school was a middle-level influence on planning to stay at school. It was decided to augment this information, and explore these issues further, by conducting interviews with some of the Year 10 students in the sixteen schools.

The methodology has been described in Chapter 2. Briefly, two groups of six to eight students were interviewed in each school; each group was selected to cover a range of abilities and attitudes to school. The interview format directed discussion towards the curriculum and organization for Years 10, 11, and 12, and student opinion of 'useful subjects' and areas for change.

More than 200 students took part in the group interviews. Their educational intentions were as follows: approximately 60 per cent intended to complete Year 12, while 30 per cent thought they would leave at the end of Year 11 and 10 per cent at the end of Year 10.

Comments on Year 10

The one aspect of the year's work that received overwhelming support from students was careers education. Positive comments were made about careers teachers, careers rooms, careers units or electives, and work experience was seen as interesting, involving, and very important to students.

As far as subjects were concerned, a greater number of positive comments were made about elective subjects than about core subjects. The elective subject most frequently singled out for commendation was consumer education, which students valued because of the insight it provided into the way in which the adult world operated and basic skills that were needed to cope with that world. Other electives that were mentioned several times were cooking, sewing, computers, and community studies. All were considered to be interesting because of their practical nature and their immediate relevance to the world outside school.

The core subjects that drew favourable comments from students were mainly in the humanities area, particulary English, more in relation to writing, practical exercises, and discussion than to the study of literature. Students in two of the schools were eager to explain why integrated studies and social science were such good subjects. They appreciated both the subject content and the teaching methods, which incoporated the concept of a negotiated curriculum.

We would go and find out about things we really wanted to know about, go to places, and have people in to talk to us.

You do topics that teach you more about after school life and how to get along in the world.

The most important thing the course teaches you is self-motivation.

It's good because you still learn what you're supposed to learn, the basic stuff, then you learn whatever else interests you.

Negative comments were frequently made about core subjects, particularly mathematics, history, and geography. The main criticisms were that the subjects were a re-run of last year's work (which suggested a lack of co-ordination between subject teachers at different year levels), and that the work was not relevant to students' present or future lives.

The most specific, and frequently made, complaint was about computer studies. The subject itself was seen to be important by students, but they were not happy with the way it was taught. They did not feel that the teachers in charge of the subject were really qualified to teach it, often knowing less than some of the students, and they felt they were not given enough hands-on practical work.

There were a number of general complaints about the year: 'School is boring', 'Nothing good or new or different has happened this year', 'We don't learn things that would be helpful in a job', and 'It's been a waste of a year'. Nevertheless, even in schools where students seemed to be unhappiest, there was a strong conviction that 'you have to stay on so you can get a better job'. There was also a certain amount of inertia evident, in that students would prefer to put up with the inadequacies of the school they knew rather than change to another school.

Opinions were divided about some of the organizational aspects of the work in Year 10. Some students thought that there should be a greater freedom of subject choice in the middle school, while others believed that all students needed to experience the same range of subjects, although there was some disagreement about the composition of the core. Differing views were expressed about the unit system (taking subjects for a term rather than a year). Supporters felt the system gave them the opportunity to cover a wide range of subject areas, and the flexibility to be able to change from an uninteresting unit during the year or to continue on for the full year with units of interest. Detractors felt that it was not possible with units to 'get a really good grip on a subject', and that the organization of the unit system meant that early comers were given the subjects of their choice 'but if you're at the end, you mightn't get anything you want'.

There were some complaints about students being inadequately informed about new subjects before the beginning of the year, and one student suggested that at the end of Year 9 there should be a short trial period of subjects similar to work experience.

There was a strong feeling expressed in more than half the groups interviewed that Year 10 should prepare students better for Year 11, mainly by teachers setting more examinations and being stricter with students about getting work done.

Comments on Year 11

On the whole, students were not looking forward with any real enthusiasm to the two final years of secondary schooling. The most common reaction to the prospect of Year 11 was that it was a 'big jump' from Year 10 to Year 11, which involved harder work and more of it. In addition, students were intimidated by the thought of examinations.

The most common positive statements referred to the wider range of subjects and greater freedom of subject choice at Year 11. Three subjects rated a specific mention because of their positive attributes: legal studies, which was 'good because you learn what your rights are'; social awareness, because 'it tells you what's going on in the world'; and English, where it involved drama, discussion, and oral work.

The alternative courses or subjects which were offered in a few of the schools drew positive responses even when students were not personally involved in such courses. The way these subjects were taught was seen to be characterized by smaller working groups of students and more individual help from teachers. The more practical emphasis of the course was seen as 'a better way of learning, more fun', resulting in students developing more confidence and independence.

> You go out into the community a lot, which is a good idea because we're in school and we don't see much of life outside and it's pretty interesting. In normal subjects you study a textbook, but in Active Learning you do things and go out and look at things.

Comments on Year 12

Year 12 was still too far away from them for most students to have thought much about it. Comments tended to be negative, particularly in relation to HSC Group 1 subjects. The words 'frightening' and 'terrifying' were used; reference was made to the increased pressure, work load, and competition. Students disliked the way so much depended on one exam and the fact that, because of the way the system was organized, a certain number of students had to fail. Despite these gloomy prognostications, the HSC year was generally considered to be worth the effort involved because 'it can get you into the course you want' and 'it gives you a better chance of getting a job'.

Much more positive comment was made about the STC course that was offered in several of the schools, although it was acknowledged that the qualification gave restricted admittance to tertiary institutions. Students liked the idea of a final report which took account of the whole year's work and attitude and participation, and was not just an examination result. Students approved the approach used in the course:

It's a different way of teaching - students have a say in the course and can do the course that will help them when they leave school.

Teachers don't push you - if you can do it, it's your own thing. It makes you grow up a bit more.

Comments on Teaching

Students made widely varied comments about the quality of the teaching which they experienced. According to the dissatisfied students, teachers 'are the worst thing about school', 'seem to give their attention only to students who are going to do well', 'don't really care about students', 'don't relate to you or talk to you, they lecture you'. By contrast the satisfied students saw their teachers as people who 'are kind', 'listen to you', 'really care about you', 'are like friends', 'help you if you fall behind', 'treat you as an equal', 'have a really close relationship with students'.

Every school was perceived to have both 'good' and 'bad' teachers, but in several schools there seemed to be, according to the students, more of one category than the other. One particularly sad comment was that 'the whole school is in a state of apathy - no-one cares any more about the school, neither the teachers nor the kids'.

Special comments were made about a particular teaching technique, writing information on the board for transcription:

We should have more discussion in class. Most teachers just write things on the board for you to copy down.

Science is boring, just writing things down off the board - the words don't go into your head. We should do more things.

At other schools you don't think for yourselves, teachers just put stuff on the board and you copy it all down. Here you discuss things, you learn how to be independent, you feel more like a grown-up.

Useful Subjects

Students were almost unanimous in their interpretation of the phrase 'useful subject': it was something that was directly related to the career path the student wanted to follow. Specific examples were given of useful subjects, such as typing, shorthand, accounting, computer studies, English, and mathematics.

Most students seemed to agree that staying on at school was a means to an end, a passport to a better job. Some students said they would leave during the year if they were offered a good job (with a stress on the word 'good'), but most who were undecided about their careers felt they would stay on at school as long as they continued to be successful there.

The question of liking school as a factor in the decision to stay on was not of particular importance to students. One student said, 'School enjoyable? That's beside the point really: it doesn't help you very much being enjoyable'.

Some students did mention useful subjects or subject areas for reasons that were not career linked:

> Computer studies and media studies because they are relevant to students and the world and to other subjects.
>
> Daily living skills.
>
> Home economics makes you able to look after yourself.
>
> Subjects that allow you to understand people's behaviour and the problems the world is facing at present.
>
> A subject that would be useful to your hobbies.

Two students were able to defend the stance they took in defining two traditional academic subjects as useful. One student felt that a study of Asian history was useful because 'it influenced the way the world is today and you understand it better, like Vietnam'. The other student responded to an attack on the study of Shakespeare's plays ('they're not much use to us') by saying:

> But it advances your brain. You can't be staid all your life and say 'I haven't done this so I'm not going to ever do it'. It widens your views of everything - now you know it and you'd have an opinion in an argument.

Changes

Some of the students' suggestions for change have already been covered in the sections on teachers and on curriculum at different year levels. Students reiterated that teachers should be stricter with their classes, and that schools should offer more practical, technical, and technological subjects, either by adding new subjects to the curriculum or by adapting ones that are already there. One student suggested that biology, for instance, 'should have things like animal care as well as working from a textbook'.

At one school, students asked that student allowances should be increased to enable them to stay on to Year 12. Students at other schools wanted money spent on better facilities and resources to service areas such as art, sport, and computer studies. Several groups were dissatisfied with the restricted access they had to the library and wanted additional staff in this area. Students in four of the schools wanted common rooms for senior students, and in three schools students wanted a smoking area.

Many of the groups felt that senior students should be given more freedom and should be treated as adults by the teachers. There were also complaints about 'stupid, petty rules' that restricted student movement around the school.

Students in ten of the groups would have liked to see an increased emphasis in their schools on leisure activities, sport, camps, and excursions, as well as 'something to do at lunchtime'.

In several schools a plea was made for teacher continuity. As one student said, 'When the teacher changes four times in the one year, it makes it hard to learn'.

Students regretted that teacher turnover often meant that subjects disappeared altogether:

> Rural studies was the best subject I've ever done - we built sheds for the animals and learnt how to keep them and feed them. Then the teacher left. Now the animals have gone and the sheds are in ruins, and no one can do the subject any more.

From the students' comments in this and other sections, certain recurring themes emerge that are an indication of what these Year 10 students considered to be important about the senior years of secondary school. To many of the students, particularly those in traditional academic schools, the two final years of secondary school seemed to be merely a stage to be endured in order to qualify for the next stage, a tertiary course or a job. In order to achieve this goal, it was often necessary to take theory-oriented subjects and submit to the HSC final examination system, but there was a strong indication from students that they did and would prefer different types of subjects and different approaches to learning. Students seemed to appreciate teaching modes that varied from the traditional lecture and study of texts, and they expressed a preference for subjects that had a personal relevance to them or a contemporary social relevance.

Teachers were obviously a critical factor in determining student satisfaction with school in general and with the study of particular subjects. The ability of teachers to cope with the affective domains of schooling as well as the cognitive domains was important to students.

Most of these findings from the student interviews reinforced the findings from the Year 10 survey. In addition, from the interview data it was possible to identify the particular features of the alternative courses that attracted student participation: the emphasis on community and work-related subjects, the use of descriptive assessment rather than end-of-year examinations, and the encouragement of student independence and involvement in decision making. An issue that emerged from the student interviews that was not specifically addressed in the questionnaires was the importance of careers education to Year 10 students. It would be difficult to determine the degree to which the provision of careers education directly affected student retention, but students appeared to value this experience because it gave them a clearer and more informed basis from which to make a decision.

The Intentions of Year 10 Students to Remain at School

Certain characteristics of students and schools appeared to be associated with the propensity of Year 10 students to remain at school.

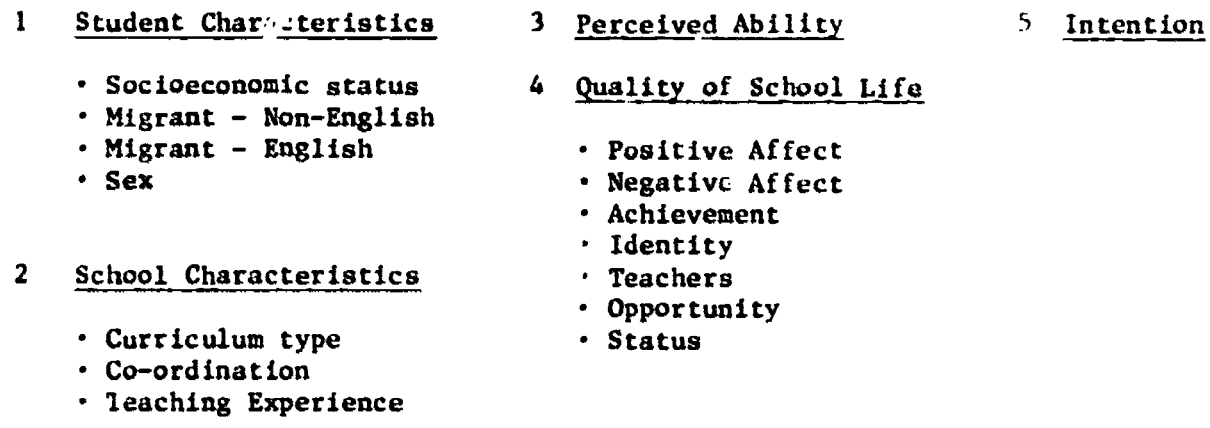


Figure 5.3 Model for the Analysis of Student Intentions

The Model

Chapter 1 outlined factors identified in other research studies as linked to student decisions to remain at school (socioeconomic status, ethnicity, perceived ability), as well as some possible factors, such as quality of school life. In addition, it was suggested that the influence of school curricula (especially at Year 12) and school organization (especially the extent of co-ordination of the program) deserved investigation.

For the present analysis, the variables were grouped as independent variables (either student characteristics such as socioeconomic status, ethnicity and sex, or school characteristics such as curriculum type and extent of program co-ordination), mediating variables (perceived ability and the quality of school life), and the dependent variable (the intention to remain at school). The model underlying the analysis has been represented in Figure 5.3. The variables used in the model were defined as follows.

(a) Socioeconomic status was based on the father's occupation coded on the 16-point ANU scale.

(b) Ethnicity was embodied as two dummy variables based on the country of father's birth. The first referred to students whose father was born in a non-English-speaking country, which was coded as 1 with others coded as 0. The second referred to students whose father was born in an English-speaking country other than Australia. The reference group were students whose fathers were born in Australia.

(c) Sex was dichotomous, with males coded as 1 and females coded as 2.

(d) Curriculum type referred to the program offered at Year 12 in which 1 = either Group 1 HSC subjects alone (five schools) or between one and two Group 2 subjects in addition to Group 1 (five schools), and 2 = an alternative course comprising either an STC course (three schools), or a range of Group 2 subjects making a

course (two schools), or a school certificate course (one school). Exploratory work had suggested that this dichotomous grouping into traditional and innovative curriculum types was both sounder statistically and more easily interpreted. Chapter 6 contains more detail of the course structures operating in the sixteen schools.

(e) Co-ordination referred to the extent to which teachers saw the school program as co-ordinated. It was the average score for teachers at the school on a five-item scale of satisfactory reliability (see Appendix II). A number of correlates which could not be included in the analysis because of problems of collinearity at school level are discussed later.

(f) Teaching experience referred to the average number of years of teaching experience of the staff. This was obtained from the teacher questionnaires.

(g) Perceived ability was a single-item 5-point scale asking students to rate their ability from 'a lot below average' .o 'a lot above average'.

(h) Quality of school life was discussed in Chapter 2. The full instrument contained seven sub-scales designated as positive affect, negative affect, identity, opportunity, status, achievement, and teachers. Because there was evidence of multi-collinearity between some of these scales, the regression analyses was based on the most general measure of satisfaction with school: positive affect. Correlations between other scales and intention to remain at school have also been reported in a separate sub-section. Psychometric properties of the Quality of School Life questionnaire have been described in Appendix II.

(i) 'Intention' was the student's intention regarding staying at school to Year 12 coded as 1 = leave at the end of Year 10 or don't know, and 2 = stay to complete Year 12.

Analysis

Regression analysis was used to examine the relations between the variables in the model. In addition to conducting the analysis for all students, separate analyses were performed for males and females. This enabled an examination of the differences between males and females in the way various factors were related to an intention to remain at school. Two specific points of analysis which were of a technical nature deserve brief mention: handling missing data and statistical significance.

Missing data. In the analyses, pairwise deletion of missing data was used. Even though coping with missing data is a persistent problem in survey research for which there is no simple and universally correct solution, Hertel (1976) recommends pairwise deletion in calculation of the correlation matrix as the preferred procedure of those readily available. Under this procedure, each correlation coefficient in the matrix is calculated on the basis of all the cases for which data on both variables were present.

The procedure makes use of much more of the available data than other methods. In the present analysis, there was typically just under 5 per cent missing data but, for socioeconomic status, 12 per cent of the cases had missing data.

Statistical and substantive significance. In presenting the results of the analysis, all path coefficients have been recorded in the tables. In approaching the question of statistical significance, we have been aware of the need for caution because of the nature of the sample. The sixteen schools were selected to represent variation of patterns of retention rather than a simple random sample. There are two criteria by which one might simplify the data in such tables. One is to examine statistical significance and comment on these coefficients which are statistically significant at the 5 per cent level. In the tables, coefficients which meet this criterion have been underlined. However, we have allowed for clustering in the sample and, on the basis of work by Ross (1978), we have set our criterion for statistical significance of regression coefficients as requiring the coefficient to be 2.5 times the standard error rather than twice the standard error. The other criterion is to use a measure of effect size to determine whether a result is substantive - a procedure which is probably more appropriate in a sample of the present design. For this study, we have deemed standardized coefficients which reached 0.1 or greater to be substantive. The discussion has concentrated on results which are both substantive and significant but also refers to results which are statistically significant but not substantive and results which appear to be substantive but not statistically significant.

Results for Year 10 Students

The results of the regression analyses implied by Figure 5.3 have been recorded in Table 5.11. The information can be summarized as follows. Each of the statements carries the implication: other things equal, with other things meaning the independent variables specified.

Perceived ability. Student intentions to remain at school were related to their perceptions of their ability. Students who rated their ability higher were more inclined to intend to remain at school. The relation between perceived ability and socioeconomic status was just smaller than the effect size criterion stated above and just failed to reach statistical significance. No other variable appeared to be related to perceived ability.

Home background. Students of non-English-speaking background were more likely to intend to remain at school than their peers whose fathers were born in Australia. The relation between socioeconomic status and intention to remain at school was statistically significant but just below the level for substantive significance. It was positive,

Table 5.11 Year 10 Students: Regression of Intention to Remain at School to Year 12 on Personal and School Variables

Independent variables	Dependent variables: Perceived ability Metric	Perceived ability Stand.	Positive affect Metric	Positive affect Stand.	Intention Metric	Intention Stand.
Sex	-.01	-.01	.07	.01	.15	.05
SES	.02	.09	.62	.08	.01	.09
Non-English migrant	.10	.05	.64	.09	.10	.10
English migrant	.06	.02	-.12	-.01	.03	.02
Curriculum	.09	.05	1.23	.18	-.04	-.03
Co-ordination	-.04	-.06	.39	.13	.00	.01
Teaching experience	-.03	-.06	-.04	-.03	.03	.11
Perceived ability					.18	.30
Positive affect					.04	.27
Multiple R	.13		.28		.49	

Note: Coefficients significant at the 5 per cent level have been underlined. The allowance made for clustering in the sample of 892 cases has been discussed in the text.

indicating a tendency for high socioeconomic status to be associated with staying at school.

Quality of school life. Students who perceived the quality of school life to be higher in terms of positive affect (school is an interesting, enjoyable place) were more likely to remain at school. None of the non-school factors was significantly or substantively linked to positive affect.

School factors. There was a positive link between the average experience of teachers in the schools and the intention of Year 10 students to remain at school to Year 12. In schools where the average level of teacher experience was greater, students were more inclined to plan to do Year 12. This possibly reflects that the more established schools attract more students to remain at school, or the more stable schools attract more experienced teachers.

Both the extent of co-ordination of the school program and the type of curriculum offered were associated with positive affect. Positive affect was higher in schools which were reported by teachers to have a more strongly co-ordinated program and in schools which had an alternative curriculum in Year 12. The influences were both significant and substantive. However, the overall influence on intentions was small since it was a transmitted rather than a direct influence. It is worth commenting further on each of these variables. The co-ordination scale was based on teacher ratings of the strength of co-ordination of the school program. It correlated positively with the extent to which teachers reported interdependence of work activity, the frequency of communication with the principal or vice-principal, and satisfaction with the organizational environment

Table 5.12 Correlations between School Means for Measures of Structural Coupling and Teacher Satisfaction[a]

	Co-ord.	Inter.	Princ.	Hd Dept	Org.env.
Co-ordination[b]		.69	.57	.50	.60
Interaction[c]			.42	.47	.47
Principal[d]				.47	.58
Head of Dept.[e]					.05
Org. environment[e]					

a For the sixteen schools, the critical value of the correlation coefficient was 0.40
b Co-ordination scale
c Interaction between teachers
d Communication with principal or vice-principal
e Communication with the head of department
f Satisfaction with organizational environment

of the school. The correlations between the school mean scores have been reported in Table 5.12. It can be seen that co-ordination was positively correlated with work interdependence, communication with the administration, and communication with the head of department. All (except the head of department scale) correlated with the organizational environment satisfaction scale. The reason for this difference between the head of department scale and the other measures was that in several of the schools the important unit of middle management was not the head of department but a year level grouping or a team. In general it appeared that, in schools with a higher level of co-ordination, both teachers and students were more satisfied and that student satisfaction contributed to student intentions to remain at school.

We also probed for an explanation why the differences in curriculum type at Year 12 were associated with positive affect at Year 10. Higher scores for a school on the curriculum type scale were correlated with teachers placing a strong emphasis on the role of schooling in Years 11 and 12 which could be called 'general' (defined by an emphasis on such things as a wide range of subjects, enabling all to experience success, developing worth and personal identity) and less emphasis on the 'academic/career' role of schooling in Years 11 and 12 (see Chapter 2). In addition, higher scores on the curriculum scale were associated with teachers indicating that, in advising students to stay at school, more emphasis was placed on items related to enjoyment and interest (Advice 1) and less on items related to success, career, and teacher opinions (Advice 2). Relevant correlation coefficients have been shown in Table 5.13. It seems that the variable designated curriculum type may be associated with differences between schools in what teachers convey to students about schooling and staying at school. Thus the

Table 5.13 Correlations between Curriculum Emphasis Measures[a] (mean scores for schools)

	Curriculum	Role A	Role B	Advice 1	Advice 2
Curriculum[b]		.51	-.66	.56	-.45
Role A[c]			-.71	.53	-.09
Role B[d]				-.37	.52
Advice 1[e]					.10
Advice 2[e]					

a The critical value of the correlation coefficient for the sixteen schools was 0.40.

b See text for definition.

c Scale based on eight items:
- offer a wide range of subjects, both academic and general
- equip students with daily living skills (e.g. driver education, budgeting, human relationships)
- enable all students to experience success and acquire confidence
- encourage students to develop links with the community (e.g. work experience, community service)
- develop students' sense of worth and personal identity
- develop student independence in thought and action
- give all students the opportunity to continue their education

d Scale based on three items:
- concentrate on academic subjects in preparation for HSC
- prepare students for their future careers
- aim to achieve a high standard of performance in Year 12 examinations

e See Appendix II and Chapter 2.

effect may not necessarily be of the curriculum itself but of the curriculum in association with teacher attitudes. The quantitative data does not allow further debate at this stage.

Many of the schools which had adopted innovative curriculum structures at Year 12 had also been engaged in curriculum review and development over the whole school. In these circumstances, it may not follow that curriculum change at Year 12 would have, of itself, the same effect on a general basis in other schools.

Correlates of Other Quality of School Life Scales

It has been mentioned that it was not possible to include all seven sub-scales of the quality of school life measure in the regression analysis. The relations between these other scales and intentions to remain at school were investigated using simple correlation coefficients. The results have been shown in Table 5.14. Because correlation coefficients have been used, the inferences drawn from these data do not carry the caveat 'other things equal'.

Table 5.14 Year 10 Students: Correlation Coefficients between Quality of School Life Scales and Other Variables

Quality of school life	Student background				School factors			
	SES	Sex	Eng. Mig.	Non-Eng. Mig.	Curr.	Co-ord.	T.exp.	Intentions
Positive affect	.02	-.02	-.04	.11	.22	.19	-.01	.36
Absence of negative affect	.04	-.01	-.07	-.04	-.07	.06	.11	.21
Teachers	.06	.03	-.06	-.02	.14	.16	.05	.29
Status	-.03	-.15	-.07	.15	.13	.05	-.10	.14
Identity	.02	.03	.00	.02	.07	.03	-.03	.04
Opportunity	.05	-. .	-.08	.07	.07	.09	.01	.30
Achievement	.06	-.04	-.03	.14	.11	.06	-.01	.36

Note: Coefficients greater than 10 have been underlined.

a For a sample of 892, assuming a design effect factor of two results in a critical value of the correlation coefficient of 0.08 to reach the 5 per cent level of significance.

Quality of school life and intention to remain at school. Intention to remain at school to Year 12 was positively correlated with six of the seven quality of school life scales (not identity). Apart from positive affect, the most important specific aspects of the quality of school life appeared to be the following:

Achievement:	students feeling they are successful in the work they do at school
Opportunity:	students feeling that the work they do at school, will be useful in the future
Teachers:	students feeling that they have good relations with teachers in that teachers are supportive and fair.

More modest associations were found between intention to remain at school and 'the absence of negative effect' (not experiencing loneliness and worry), and 'status' (the prestige accorded by significant others).

Quality of school life and student background. Of the three scales most strongly associated with planning to remain at school, only 'achievement' was associated with any aspect of student background: students of a non-English-speaking background expressed greater satisfaction with that aspect of school than other students. Status scores were associated with two aspects of student background. Female students tended to record lower status scores than male students and students of non-English-speaking background tended to record higher satisfaction with status at school than did other students.

Quality of school life and school factors. Scores on the achievement scale tended to be higher for students in schools with an alternative Year 12 curriculum. Satisfaction with relations with teachers tended to be higher in schools with an alternative curriculum, and in schools where a high degree of program co-ordination was reported. Both of these quality of school life scales were also linked to student intentions to remain at school. Of the other scales, only status was linked to school factors, with students in schools with an alternative curriculum tending to record higher scores.

Overall the correlational analysis suggested some specific aspects of the quality of school life which were associated with an intention to remain at school. Achievement, opportunity, and teacher-student relations, which appeared to be aspects of the quality of school life most strongly linked to staying on at school, were also linked to school and student background variables. Teacher-student relations were reportedly more favourable in well co-ordinated schools with some evidence of curriculum innovation, and satisfaction with both achievement and status was associated with curriculum innovation. In terms of student background, it appeared that female students were less satisfied with their status than males and that students of non-English-speaking background were more satisfied with achievement and status than other students.

Table 5.15 Regression of Intention to Remain at School to Year 12 on Personal and School Variables: Year 10 Male Students

	Dependent variables					
	Perceived ability		Positive affect		Intention	
	Metric	Stand.	Metric	Stand.	Metric	Stand.
SES	.01	.04	.03	.03	.02	.13
Non-English migrant	.13	.07	1.02	.14	.16	.16
English migrant	.05	.02	.81	.09	.09	.07
Curriculum	.09	.05	1.61	.23	-.04	-.04
Co-ordination	-.05	-.06	.20	.07	.01	.02
Teaching experience	-.04	-.10	-.08	-.05	.03	.13
Perceived ability					.17	.30
Positive affect					.03	.24
Multiple R	.15		.32		.50	

Note: Coefficients significant at the 5 per cent level have been underlined. N = 344 valid cases.

Differences Between Male and Females Students

As an extension of the analysis for all Year 10 students, separate regression analyses were conducted for the male and female students in the sample. Such an extension was necessary to probe whether the processes leading to an intention to remain at school differed between males and females. That is, it seemed possible that some of the factors investigated might have influenced the decision of one group more strongly than the other. The results of the two sets of analyses are presented in Tables 5.15 and 5.16. In drawing inferences from these data we have referred to the magnitude of the 'metric' rather than the 'standardized' regression coefficients. The metric coefficients should be compared when examining the same variable in different equations and the standardized coefficients when comparing different variables in the same equation. Above all, in this examination of the data it was necessary to examine the relative effect size rather than simply look at whether or not a given significance level had or had not been reached for one group but not the other. Testing the significance of the difference between regression coefficients is difficult even for simple models and, when possible, is prone to type two errors. Consequently comparison between the regression coefficients in Tables 5.15 and 5.16 was based on inspection of the relative effect size rather than on a test of statistical significance.

Effects on intention to remain at school. In terms of direct influences on intention to remain at school, there were stronger associations between student background and intention to remain at school for males than females. For males, the effect of a non-English-speaking background tended to be greater than for females (though it was in the same direction for each). This suggested that the influence of home

Table 5.16 Regression of Intention to Remain at School to Year 12 on Personal and School Variables: Year 10 Female Students[a]

Independent variables	Dependent variables					
	Perceived ability		Positive affect		Intention	
	Metric	Stand.	Metric	Stand.	Metric	Stand.
SES	.03	.14	.09	.12	.01	.08
Non-English migrant	.11	.07	.49	.07	.09	.08
English migrant	.08	.03	-.80	-.08	.01	.00
Curriculum	.10	.06	1.14	.17	-.03	-.03
Co-ordination	-.04	-.06	.49	.16	-.01	-.01
Teaching experience	-.01	-.03	-.02	-.01	.03	.10
Perceived ability					.19	.29
Positive affect					.05	.29
Multiple R	.16		.29		.48	

Note: Coefficients significant at the five per cent level have been underlined.

a N = 535 valid cases.

and peer aspirations was more strongly in the direction of staying at school for males of non-English-speaking background than for females of the same background. Similarly the effect of socioeconomic status on intention to remain at school tended to be a little greater for males than females.

In previous sections, it has been noted that there was a hint that satisfaction with school was more important in planning to remain at school for females than males. The data in Tables 5.15 and 5.16 tended to support this though the difference in the effect size was small.

Effects on perceived ability. For both males and females, high perceived ability was associated with an intention to remain at school to Year 12. Among females, perceived ability was more strongly linked to socioeconomic status than for males. Expressed in another form, this suggested that, among female students, high perceived ability was associated with high socioeconomic status but that the relationship was much weaker for male students.

Effects on positive affect. In the general analysis, it was noted that positive affect was higher in schools with an alternative curriculum in Year 12 and in schools where stronger program co-ordination was reported. From the separate analyses for males and females, it appeared that there was little difference in the effect of curriculum but there was a difference in the effect of program co-ordination, which on positive affect was stronger for females than for males.

In terms of student background, there was a substantive, although non-significant, effect of non-English-speaking background on positive affect for males rather than

females. Similarly there was a substantive, though statistically non-significant, effect of socioeconomic status on positive affect for females rather than males.

Correlates of other quality of school life scales. In this section we comment on those associations for which there was a statistically significant difference between the correlation coefficients in the male and female samples (Ferguson, 1981). In this computation, allowance was made for the clustering in the sample (see Ross, 1978). Two associations were different for male and female students. The first was that between absence of negative affect and a non-English-speaking background. For males the association was positive (r = 0.16) indicating that males of non-English-speaking background scored higher on 'absence of negative effect' (i.e. had fewer negative feelings) than other males. By contrast, for females the association was negative (r = -0.16) indicating that females of non-English-speaking background scored lower on 'absence of negative effect' (i.e. had more negative feelings) than other females. In other words the direction of the association for males was the reverse of that for females and, in the analysis for all students, the two associations cancelled each other out.

The second association which differed between males and females concerned the link between non-English-speaking background and 'opportunity'. For female students the correlation coefficient was almost zero (r = -0.02) but for males the correlation coefficient was positive (r = 0.18). This indicated that male students of a non-English-speaking background were more satisfied with the opportunity domain ('school work is relevant') than other male students. For female students there was no difference in terms of the opportunity scale between satisfaction expressed by those of non-English-speaking background and other students.

None of the correlations between quality of school life scales and intention to remain at school showed a significant difference between male and female students.

In discussing the results, it is important to stress that the two most powerful influences on student intentions to remain at school were the same for males and females. For both groups, perceived ability and positive affect were the strongest influences on student intentions to remain at school and the strength of the effect was similar in each case. However, there were suggestions of some differences between males and females in other processes involved in the model outlined in Figure 5.3.

In Summary

Overall the results suggest that students' perceptions of their ability and the quality of school life, in terms of positive effect, are linked to their intentions to remain at school. An interpretation of the magnitude of these effects is somewhat tenuous when variables which do not involve a concrete metric are considered. The following

illustrations provide an indication of magnitude of the effects represented by the metric coefficients for positive affect and perceived ability. In the first illustration, a group of students with scores on the positive affect scale at the 75th percentile could be compared with a group at the 50th percentile on that scale who were similar in other respects. According to the results presented here, the group with higher scores would contain 9 per cent more students who intended to stay at school to Year 12. The second illustration compares a group of students at the 75th percentile on the perceived ability scale with a group similar in other respects but who were at the 50th percentile on that scale. According to the results, the group with higher perceived ability would contain 10 per cent more students who planned to stay at school to Year 12 than the group with average perceived ability.

Moreover, school factors (related to organization and curriculum emphasis) appeared linked to positive affect. One qualification needs to be added: since the relation between the measured school factors and intention to remain at school is a transmitted effect, its total impact is small. The transmitted effect of the presence of an alternative Year 12 course can be considered in relation to the metric coefficients presented. When an alternative Year 12 program was present in a school, average scores on the positive affect scale were 1.2 units higher than if this were not the case, and this would be reflected by 5 per cent more students planning to complete Year 12, provided other things were equivalent. The transmitted effect of co-ordination appeared to be rather smaller.

In the data there was also some evidence of differences in the processes resulting in an intention to remain at school for females and males. Such differences are probably worth more detailed consideration in future studies.

Staying at School: Year 12 Students

Year 12 students filled in a questionnaire that was similar to the Year 10 questionnaire, asking questions related to their reasons for staying on to Year 12 and to their post-school intentions.

Influences on the Decision to Complete Year 12

Table 5.17 gives an indication of the importance that Year 12 students placed on the various reasons that may lie behind a decision to stay on to Year 12: the mean ratings (calculated on the original four-point scale) are listed in rank order. Least important to these students were teachers' opinions and friends' decisions, but parents' opinions were of rather more importance. Enjoyment of school and interest in school work were in the middle to lower range of importance, while achievement and career-related reasons were the most important, thus reinforcing the finding from the Year 10 data analysis that

Table 5.17 Year 12 Students: Influences on Decision to Complete Year 12

Reason	Mean rating[a] (1-4) Males	Females	Persons
I need a pass at Year 12 for my future career	3.40	3.61*	3.53
I do well in my school work	3.01	3.10	3.06
I can do subjects that are useful to me	2.78	3.00*	2.92
My parents want me to stay at school	2.63	2.64	2.64
I enjoy school	2.42	2.60	2.53
School work is interesting	2.29	2.52*	3.43
My teachers thought I should stay at school	1.86	1.96	1.92
Most of my friends stayed on at school	1.77	1.64	1.69

a 1 = not at all important; 2 = slightly important; 3 = fairly important; 4 = very important.
b * = difference significant at the 5 per cent level assuming a design effect factor of 2.

utility factors were more important than enjoyment factors in convincing students to stay on at school or leave. With the exception of a switch in the fifth and sixth rankings, the rankings of reasons were identical for the Year 12 students and those Year 10 students who planned to complete Year 12.

Some differences between male and female students were evident in the data in Table 5.17. Two school influences ('school work is interesting' and 'do subjects that are interesting') were rated as more important by females than by males and a third ('enjoy school') tended to show a difference in the same direction. These differences were small in size but they confirm similar small differences between the perceived strength of influences on students of each sex in some other sections of the study. In addition the female students accorded more importance to the need to pass at Year 12 for their future career than did male students.

Post-school Intentions

The pattern of post-school intentions for Year 12 students was different from any for the Year 10 groups, although it was closest to the group that planned to complete Year 12. By Year 12 there was a much clearer commitment to full-time study: 52 per cent of the students planned to undertake full-time study, 27 per cent a full-time job, and a further 9 per cent indicated that they would choose one of these two options (see Table 5.18).

Comparing the influence of other people on students' post-school plans in Years 10 and 12, knowledge of teachers' opinions was still largely unknown in Year 12, but the 'don't know' category responses were 10 per cent less than in Year 10. There was a similar increase in Year 12 in the knowledge of friends' destinations, with the highest frequency occurring in the 'full-time study' category. As with the Year 10 students, the Year 12 students' plans were in close accord with parents' opinions, as indicated by the

Table 5.18 Year 12 Students[a] : Post-school Intentions

Percentages recorded	Own opinion	Parents' opinion	Teachers' opinion	Friends
Full-time study alone	43	46	23	29
Full-time study and part-time job	9	3	0	1
Full-time study/full-time job[b]	9	10	3	15
Part-time study and part-time job	4	1	1	1
Full-time job and part-time study	4	2	0	0
Full-time job alone	23	20	8	24
Part-time job alone	0	0	0	1
Part-time study alone	2	1	1	1
Don't know	7	16	65	28

a N = 721 valid cases.
b This response is interpreted as indicating that the student would choose either of these two options.

percentages in the eight categories, and only 16 per cent of students were unaware of their parents' opinions.

Several interpretations are possible for the stronger commitment to full-time study among Year 12 students than among Year 10 students planning to complete Year 12. There are four which seem plausible. First, the Year 10 cohort might include students who plan to complete Year 12 but who might not actually fulfil those plans. Such students might leave school as jobs became available. Secondly, an increase in retention to Year 12 might be imminent with additional students having different post-school plans to those who were in Year 12 in 1983. Thirdly, the data could indicate a shift in the value attached to post-secondary education by young people. Fourthly, the data could reflect a change in post-school intentions which arises as students proceed through the final years of secondary school. There was no data available from which to determine the relative merits of these interpretations. They are mentioned to ensure that a number of possibilities are considered when examining the data.

Year 12 Students and their Courses

In other sections of this report the influence of alternative courses of study to the traditional HSC subjects, known as Group 1 subjects, has been mentioned. In the sixteen schools, three types of alternative course were noted: an Approved Study Structure (usually the STC course), a course based on a combination of separately accredited Group 2 subjects, or a school certificate course based on subjects not accredited by the Victorian Institute of Secondary Education (VISE). The discussion which follows concerns trends in the Group 2 subjects and approved study structures accredited by VISE.

Table 5.19 Ten Most Popular Group 2 Subjects in 1982 and 1983

1982		1983	
Subject	Enrolments[a]	Subject	Enrolments[a]
Business Maths	280	Business Maths	648
English A	181	English A	408
Psychology	135	Creative Arts	355
Creative Arts	133	Intro. Accounting	338
Maths at Work	123	English B	337
Drama	118	Advanced Typing	330
Intro. Accounting	103	Psychology	276
English B	97	Intro. Business Law	257
Advanced Typing	89	Maths at Work	254
Commercial Maths	71	Drama	142[b]

a Denotes final entry figures.
b Denotes preliminary enrolments.

Source: Victorian Institute of Secondary Education.

Elements of Year 12 Courses

The terminology used to describe Year 12 programs dated from 1981 when the assessment of students changed from being predominantly based on external examination to being based in varying degrees on school assessments. Four different elements could be discerned within the VISE Year 12 framework:

(a) Group 1 subjects are basically previous HSC subjects and are structured so as to comprise a core (two units) and an optional unit (one unit). The optional unit is school assessed and the core is assessed partly by external examination (50-70 per cent) and partly by the school. School assessments and external examination results are combined to give an overall result. There were 55 Group 1 subjects in 1983.

(b) Group 2 subjects require the course of study (three units of work) to be accredited by VISE but the assessment is conducted entirely at school level. There were 36 Group 2 subjects in 1983. Group 2 subjects contain a wide range of vocationally oriented as well as liberal studies. In Table 5.19 the ten Group 2 subjects with the highest enrolments in 1982 and 1983 have been shown. Those lists contain a mix of different types of study.

(c) Group 2 single units comprise an element of study of approximately 35 to 40 hours of class time. Units which could be studied singly mainly involve religous studies. There were six Group 2 single units in 1983.

(d) Approved Study Structures are based on the notion that the components of the course are integrated such that students study a program which is coherent. The most common approved study structure (six were accredited in 1983) is the 'Schools Year Twelve and Tertiary Entrance Certificate': the STC course.

The handbook for the STC course described its main features (VISE, 1981). The STC course originated in 1976 with the aim of offering an alternative Year 12 course which was seen by the initiators as more responsive than the Higher School Certificate to changing circumstances in employment and entry requirements for post-secondary education. From 1981 it has operated as an accredited VISE Group 2 course. Schools which offered this course were responsible for the adaptation and operation of the course, but they were required to participate in the STC Group Council (two representatives per school), to agree to certain rules, and to submit their course for approval. Some key features of the STC course outlined in the course handbook were:

The course was to be seen as a unified program rather than a set of discrete activities.

Students were to participate in managing their curriculum through a School Year 12 Committee and in other ways. This has resulted in some explorations of a negotiated curriculum. Notwithstanding this principle, English was a compulsory study for all in the STC group.

The course was to be flexible in responding to changing interests of students or changes in the resources available.

Assessment was to be non-competitive making use of descriptive statements of students' strengths and weaknesses rather than marks or letter grades.

Work experience and visits to tertiary institutions were stressed as important and were to be integrated with the course of study.

Trends in Enrolments

The data in Table 5.20 record enrolment trends in different types of subjects and courses over the period from 1981 to 1983. There was a marked increase in the number of schools offering some Group 2 courses, though for the majority the increase was in Group 2 subjects rather than alternative courses. There was also an increase in enrolments both in Group 2 subjects and in approved study structures, which far exceeded the relatively small increase in HSC entries. Between 1982 and 1983 there was a 7 per cent increase in overall HSC enrolments with a 5 per cent increase in Group 1 enrolments, a 146 per cent increase in Group 2 subject enrolments, and a 39 per cent increase in enrolments in approved study structures.

It also appeared from the data in Table 5.20 that most students studying Group 2 subjects took one such subject in conjunction with Group 1 subjects (the mean was 1.34 Group 2 subjects per student in 1981 and 1.43 in 1982). Other data suggest that, of those enrolled in at least one Group 2 subject in 1981, the most common pattern (72 per cent of candidates) was for one Group 2 subject in conjunction with a set of between one and

Table 5.20 Trends in VISE Group 2 Courses 1981 to 1983

	1981[a]	1982[b]	1983[c] A	1983[c] B
Group 2 Subjects				
Number of subjects	22	28[d]	36[d]	36[d]
Number of students	586	1236[e]	(2647)[g]	2673
Number of enrolments	834	1774	4691	4535
Enrolments per student	1.42	1.44	(1.77)[g]	1.70
Group 2 Single Units[f]				
Number of single units	-	6	6	6
Number of students	-	722[e]	(1546)[g]	1715
Number of enrolments	-	1063	2411	2360
Enrolments per student	-	1.47	(1.56)[g]	1.37
Approved Study Structures				
Number of study structures	5	5	6	6
Number of students	469	725	1018	1007
Number of schools	20	28	36	36
Number of students (STC)	355	547	826	819
Number of schools (STC)	16	20	28	28
Group 1 Subjects				
Number of subjects	54	54	55	55
Number of enrolments	110102	108397	116771	114142[g]
Total schools with Group 2 course	77	149	212	212
Total HSC entries	26887	26770	-	28698

a Based on final entry date 18 September (VISE Circular, No.34, September 1982) and Report on HSC Assessment Program 1981 (VISE, 1982a).
b Based on Report on HSC Assessment Program 1982 (VISE, 1983b).
c Figures in column A refer to enrolments at closing date 8 July 1983. Figures in column B refer to the final entry date for 1983. Information provided from VISE.
d Excludes subjects for which the enrolment was nil.
e Estimated figures. A total of 1958 students were enrolled in at least one Group 2 subject or unit.
f Single units constitute the equivalent of one-third of a subject.
g Estimated only.

five Group 1 subjects (VISE, 1982b). Only 5 per cent had taken four or five Group 2 subjects only. In 1982, about 12 per cent of Group 2 enrolments involved more than one Group 2 subject. There was a suggestion in the estimates for 1983 that a greater proportion of the Group 2 enrolments involved two or more Group 2 subjects, but this inference needs confirmation.

In general, the trend over three years was for enrolments in Group 2 courses accredited by VISE to increase more rapidly than enrolments in Group 1 subjects.

Destinations of Year 12 Students

It would appear to be mistaken to assume that students in alternative Year 12 programs do not proceed to post-secondary education. Data presented by Jones (1983) suggested

that the level of new enrolments in post-secondary education in 1981 was 64 per cent of the enrolment in HSC in 1980. However some of the new enrolments would have come from sources other than HSC. Only 70 per cent of all new enrolments were normal entrants from HSC with Group 1 subjects. Hence, between 50 and 60 per cent of students in Year 12 in 1980 appeared to have proceeded to post-secondary study in 1981.

A study of the placement of students in VISE Group 2 courses in 1982 showed varied destinations for these students (VISE, 1983b). Those data suggested some 33 per cent of students in the STC courses and around 31 per cent of those taking two or more Group 2 subjects proceeded to post-secondary education. Even though this represented a smaller proportion of the group going to further study than for other Year 12 students, it was still a substantial number. Apparently the alternative Year 12 program provided for further study as well as employment. They were not terminal courses.

Views of Courses

The data available from the Year 12 survey were incomplete in respect of the type of course undertaken. Enrolment in an alternative program was clearly identified for students of those schools where a coherent alternative course was offered and not in schools where the alternative was a set of Group 2 subjects. Even then, in one of the schools, coding of course type was only possible for some two-thirds of the students. As a result of these difficulties, distinctions between student views according to course type was somewhat tenuous and should be treated as indicative rather than definitive.

Table 5.21 records information about the importance ratings given to various reasons for staying at school by students in different courses. Because of the uncertainties already outlined, the data have been recorded for all schools, and for three schools in which students of both course types were identified. Enjoyment of school, doing useful subjects, and friends' decisions were rated as more important by students in the alternative programs than by other students. Needing a pass for a future career was rated as less important by students identified as in those courses than by other students. However, the differences were small and the overlap between the groups should be stressed as much as the differences in the means.

Some differences were also reported in terms of the quality of school life scales. These data have been recorded in Table 5.22. In terms of achievement (feeling successful in the work done at school), and absence of negative affect (the absence of feelings of loneliness and worry), students in the alternative programs were more satisfied than other students. Smaller differences in favour of the alternative group were found on the opportunity scale (feeling that school learning was relevant) and the status scale (prestige accorded by others). There were no differences in quality of school life scores related to teacher-student relations (supportiveness and fairness), and identity (feelings of self-awareness) between the groups. A small difference between the groups

Table 5.21 Year 12 Students: Influences on Decision to Complete Year 12 for Students in Different Courses

Reason	Mean rating[a]			
	All schools[b]		Three schools[c]	
	Alternative	Other	Alternative	Other
I need a pass at Year 12 for my future career	3.30	3.61**	3.28	3.59
I do well in my school work	3.95	3.05	3.20	3.20
I do subjects that are useful	3.22	2.81***	3.23	2.99
My parents wanted me to stay at school	2.56	2.64	2.75	2.84
I enjoy school	2.77	2.45*	2.81	2.38*
School work is interesting	2.55	2.38	2.56	2.54
My teachers thought I should stay at school	1.99	1.90	2.14	2.08
Most of my friends stayed at school	1.94	1.63**	2.13	1.77
N	128	538	78	90

a 1 = not at all important; 2 = slightly important; 3 = fairly important
4 = very important
b N = 672 valid cases.
c N = 172 valid cases.
*** difference significant at the 0.1 per cent level
** difference significant at the 1 per cent level
* difference significant at the 5 per cent level.
Design effect factor assumed as 2.

Table 5.22 Quality of School Life Scores for Year 12 Students by Course Type

Scale	Mean score			
	All schools[a]		Three schools[b]	
	Alt.[c]	Other	Alt.[c]	Other
Positive affect	14.76	14.12	14.91	13.82
Absence of negative affect	15.64	14.01***	15.34	13.26**
Achievement	15.92	14.52***	16.20	14.37***
Teachers	15.35	15.05	14.95	15.40
Status	13.01	12.25*	13.23	11.78*
Identity	15.80	15.50	15.85	14.96
Opportunity	15.97	14.95**	15.85	14.86
N	130	546	77	89

a N = 663 valid cases.
b N = 168 valid cases.
c *** difference significant at the 0.1 per cent level.
** difference significant at the 1 per cent level.
* difference significant at the 5 per cent level.
Design effect factor assumed to be 2.

c Denotes identified alternative course.

(not significant at the 5 per cent level) was found in terms of positive affect. In general, the domains in which the differences in mean scores between course types were found corresponded to the sort of difference one would expect for those courses.

Students in Years 10 and 12: A Summary

Previous chapters based on school level analyses have suggested that differences in school curriculum arrangements were associated with differences in retention rates. This chapter has been based on student perspectives and complements those previous chapters. The reasons given by students for continuing at school, the factors associated with an intention to remain at school, and the responses of students to their courses were broadly consistent with the pattern of factors associated with differences in retention rates.

Among the reasons given by students as influencing their decision to complete Year 12, future career requirements loomed prominent. This probably reflected the views of students with strongly developed intentions to enter post-secondary education or particular occupations. Yet it seemed both from questionnaires and interviews that the perception of subjects as useful to work and leisure was also important. In this area, it seemed that the school curriculum could be important. In addition, enjoyment and interest factors were accorded a middle ranking in terms of importance, so that, while these were not major factors, they could have been an influence on some students.

It seemed that an intention to complete Year 12 was strongly linked to students' perceived ability and their quality of school life. Aspects of the quality of school life which were important were positive effect (interest, enjoyment), achievement (feeling successful), opportunity (school work will be useful), and teacher-student relations. These domains of the quality of school life reflected both the notion of personal investment and the notion of satisfaction. The analyses in this chapter suggested that both curriculum factors and the strength of co-ordination in the school could be linked to various aspects of the quality of school life.

The possibility that differences in retention rates were associated with curriculum differences received suppport from trends in enrolments at Year 12 and in the responses of Year 12 students from different courses in terms of the quality of school life. It appeared to be in alternative programs that enrolments had grown most rapidly and, in the small sample in this study, students in the alternative programs expressed greater satisfaction with school.

Within these general conclusions there were some differences in the responses of students from different home backgrounds, and some differences between males and females which will be discussed in the final chapter.

CHAPTER 6

THE SCHOOLS: AN OVERVIEW

In Chapter 1 it was conjectured that certain within-school factors might affect the decisions of students to remain at school, factors such as school organization, curriculum range, and student satisfaction with school. In order to explore these relationships, we undertook detailed studies of the sixteen schools, which incorporated questionnaire surveys of present students, former students, teachers, and parents, and interviews with principals, teachers, and students. The outcomes of the surveys and interviews for each of these school community groups are discussed in Chapters 5 and 7. The purpose of Chapter 6 is to draw on this information, particularly the qualitative component, as well as additional information collected on school visits to describe the characteristics of each of the sixteen schools and to discuss the ways in which within-school factors appeared to affect retention levels in schools. More detailed descriptions of the sixteen schools can be found in Appendixes III, IV, and V, representing high, medium, and low retention schools. In these appendixes, the information about each school has been presented in four sections: background details of school location, history, and population; curriculum and organization in Years 7 to 12; processes of school management, and the involvement of staff and parents; and planned future changes in curriculum or organization.

The School Visits

In Chapter 2 the nature of the visits to the schools was described. Each of the metropolitan schools was visited between three and six times; visits to the non-metropolitan schools, because of the travelling time involved, were fewer in number but of longer duration.

In the visits to schools the following tasks were accomplished:

1 explanation of the study to the principal and, in many cases, to assembled staff or year level co-ordinators;
2 interview with the principal;
3 interviews with teachers such as Year 10, Year 11, and Year 12 co-ordinators, careers teachers, and transition education co-ordinators;
4 distribution of teacher questionnaire to all teachers;
5 administration of questionnaires to Year 10 and Year 12 students;
6 identification of Year 10 parents and former students for surveys;
7 collection of any relevant documentation such as school review reports, course details, enrolment figures, handbooks, surveys of students, and interviews with groups of Year 10 students.

High Retention Schools

The analysis of the data on curriculum and retention in Chapter 3 showed that high apparent rates of retention to Year 12 were associated with the offering of alternative curricula at Year 12. With this in mind, the high retention schools will be considered in two groups: the four schools that offered an alternative course at Year 12 or more than three HSC Group 2 subjects, usually in addition to HSC Group 1 subjects (Schools 2, 6, 9, and 11); and the three schools that offered one or two HSC Group 2 subjects and/or HSC Group 1 subjects (Schools 1, 3, and 10).

Schools 2, 6, 9, and 11

School 2. This was a long-established school in the western suburbs that had changed its philosophy and mode of operation quite radically over the past few years because its traditionally academic orientation was no longer felt to be appropriate for a large proportion of the student population. The remarkable increase in retention from Year 11 to Year 12 (from 60 per cent in 1980 to 114 per cent in 1983) could probably be substantially attributed to these changes. The greatest change had been the introduction of the STC course at Year 12, beginning in 1981 with 25 students, now attracting over 80 students without affecting the number of students taking HSC Group 1 subjects. In 1983, 25 students in Year 12 had transferred to the school, mainly into the STC course. The features of the STC course that seemed to appeal to staff and students were descriptive assessment, curricular flexibility, individualized learning programs, and student involvement in the operation of the course. During the same period, the Year 11 course had been greatly expanded to include, in addition to a range of traditional and academic subjects, creative arts and physical education programs, technical subjects (with the co-operation of a nearby technical school), and a compulsory 'social awareness course'. A new course in social science was introduced in Year 10 in 1983, based on the approaches used in the STC course and Year 11 social awareness. In the Year 10 interviews, students spoke enthusiastically about the subject, and felt it increased their self-confidence, motivation to learn, and knowledge of the community. Students said that having such a wide range of subjects offered to them in Year 11 and having different types of subjects, such as social awareness, made them inclined to stay at school longer. In the questionnaires to Year 10 and Year 12 students at this school, students recorded higher than average levels of satisfaction with school, particularly on items dealing with enjoyment of learning and feeling successful as a student.

School 6. The school, unlike other high schools in the area, had a consistently high retention rate to Years 11 and 12, which seemed to be linked to organizational and curriculum changes that took place at the end of the 1970s. For the past five years the

school had operated in a vertical structure of teams across Years 7 to 10, with teams of teachers catering for the academic and pastoral needs of the students in their care. The system was introduced initially because of the large size of the school and had been maintained, even though student numbers had decreased, because it received strong support from students and teachers. For students there was a greater consistency in teacher contact over the four years and more support from teachers; teachers too found it a more supportive and cohesive structure, one that minimized the sense of isolation that teachers could experience in a horizontal structure. Students in general spoke positively about their teachers and appreciated the access to support people (language aides, social workers, youth workers) which had been made possible through the Disadvantaged Schools Program. For at least seven years, alternative courses had been available in Years 11 and 12 (STC), and currently they enrolled over half the student cohort at these levels. The Year 11 course had changed since its inception as a terminal course: in 1983, students could proceed to any Year 12 course; instead of a collection of individual subjects, it had become a 'package deal' like the STC course; and attempts had been made to introduce some approaches used in the STC course, such as self-assessment, group activities, and student participation in the organization of courses. The courses were introduced after lengthy staff deliberation in order to cater for the wide range of abilities and interests at the senior levels. The school was in an area that had a transitory population, as reflected in high yearly student turnover figures, but at Year 12 two groups of students have sought out the school - one from South East Asia to do the HSC course in preparation for tertiary entrance, and the other from local schools to do the STC course. In the student questionnaire, the Year 10 and Year 12 students from School 6 showed above average levels of satisfaction with six of the seven domains of schooling.

School 9. Like School 6, School 9 had made organizational and curricular changes since the late 1970s that were associated with a high retention rate to Year 12. In 1983, the apparent retention rate from Year 11 to Year 12 was 121 per cent; the high level is explained by the 64 percentage points which could be attributed to students who had transferred to this school to do the STC course (like School 6 this was one of the original schools in the scheme). This is the one school in the sample which did not offer any HSC Group 1 subjects. The students in Year 12 appeared to be well satisfied with the way the course operated - on the student questionnaire, they had above average scores in all domains, particularly in items dealing with teacher-student relationships, relevance of schooling, and feeling successful as a student. The school embarked on the STC program to complement its general studies program in Years 7 to 10, in which each teacher covered a broad range of topics and areas and had pastoral as well as academic responsibilities. In 1983, the STC concept of a negotiated curriculum was introduced

into some elective units in Years 9 and 10. In the teacher questionnaire, the level of teacher communication and co-ordination of the teaching program was much higher in School 9 than at other schools. A member of staff made the following comment on the way in which the school operated:

> A number of teachers have been here for years and the past has flavoured the present. They work in harmony by virtue of a number of committee and group meetings which are held frequently. A lot of the operation of the school is developed through the consensus decision making of those meetings.

Pastoral care was of paramount concern to the staff. For students in Years 7-10, pastoral care lay in the hands of the home group/general studies teacher. The home groups in this school were seen by teachers to entail a much closer and more complete involvement with the lives of the students than similar schemes operating in other schools. In Years 11 and 12, tutorial/pastoral sessions were held once per week with small groups of students, and there was a weekly meeting of delegates from the pastoral groups with teachers. All students in the group interviews spoke very positively about the programs at Years 10, 11, and 12, and all remarked on the friendly atmosphere of the school and the good relationships both among students and between students and teachers.

> Most of the teachers here are friends with you, and they'll notice if you're down.
>
> The students can relate to teachers, and that's a help in class.
>
> The teachers here will help you if you fall behind. At some other schools, the teachers only take notice of the ones with brains, but here they treat all students the same.

School 11. Over the period 1980-82 the school had a retention rate from Year 10 to Year 12 of 54 per cent, lower than the other schools in this category, but high for a country school. The school had an orthodox organizational structure complemented by diversity in its curriculum offerings. An alternative program had been introduced in Years 8, 9, and 10 for students with behaviour problems; it involved small group learning, more individual attention, and pastoral care. The Year 10 students in the group interviews spoke quite positively about various aspects of schooling, and in the questionnaire they recorded about average or above average levels of satisfaction with school in all but one of the domains of schooling. Alternative subjects had been available to Year 11 students but, as the staff have not been entirely satisfied with the system, a changed format was to be introduced in 1984. Two courses would be offered: an alternative course and a two-semester system of units (enabling continuity through the year or change mid-way). Three-quarters of the students in Year 12 studied HSC Group 1 subjects; the remainder undertook a school certificate course in secretarial studies (which has been available for the past five years). Staff saw a need to make the school environment less custodial for the Year 12 students, and the students themselves, on the student questionnaire, expressed their dissatisfaction, particularly with items concerning

feelings of importance, enjoyment of school, and interest in work. The secretarial studies students were more positive about school than the Group 1 students, perhaps because of the emphasis in that course on teacher-student relationships, personal development, and job skills and experience. The school planned to introduce an STC course in 1984 in order to provide continuity for the Year 11 alternative course students and to broaden the range of options in Year 12.

Schools 1, 3, and 10

School 1. The most outstanding feature of this school, the one most often referred to by staff, parents and students, was its academic tradition and record of high achievement. The school population had the highest socioeconomic level of any school in the sample, and both parent and student expectations were that most children would stay on at school to Year 12 and follow an academic line. An attempt was made to introduce a broader Year 11 curriculum for 1984 but, as insufficient interest was expressed by students in the new subjects, the idea was abandoned. There were certain indications that some changes might be welcome in the school, but the direction to be followed was yet to be determined. Students recorded lower than average levels of satisfaction with school, and in interviews spoke of a prevailing apathy; parents in a survey indicated that they would support the introduction of alternative courses in Years 11 and 12; and staff had applied to an external agency for assistance with curriculum processes, and had expressed concern about the lack of a pastoral care policy. Although Group 2 subjects were offered, they were not popular with students. Some staff felt that this was because students developed an academic orientation through their experience of the school curriculum in the early years. The principal was aware of the need to move carefully with any new developments so that the school could still maintain its record of achievement, but he felt that a more practical and technological emphasis could be incorporated into the curriculum.

School 3. Like School 1, this school had recorded a steady high retention rate across the years of post-compulsory schooling. It must be noted that, although retention figure for 1983 from Year 11 to Year 12 was a high 101 per cent (falling to 92 per cent in the July figures), 30 percentage points (28 students) should be attributed to students who had transferred into the school at this level, mostly overseas students from South East Asia who needed a tertiary entrance qualification. In the questionnaires, the Year 12 students recorded average levels of satisfaction with school, but Year 10 students were less satisfied with teacher-student relationships and the relevance of the subjects they were doing. In the interviews, students mentioned that they would like to see the academic subject offering expanded to include other types of subject, 'ones that are relevant to everyday life', 'teach you about the outside world', 'teach you things that

would be helpful for a job, real things'. The staff seemed aware of these areas of dissatisfaction: in 1983 some inservice time had been devoted to the development of counselling skills, and several years ago an alternative Year 11 course had been researched and planned and accepted by students, but vetoed by parents. An attempt had been made to involve parents more in the operation of the school by creating a parent resource group. Staff were persevering with discussions on broadening the curriculum, and were investigating two possibilities: the provision of alternative courses within the school, and the involvement of other local schools in the present reciprocal arrangement with one other school in the area for some Year 11 and 12 subjects.

School 10. This school also had a reputation as an academic high school, and most staff and parents wanted this to be maintained, although some teachers felt that the number of HSC Group 2 subjects offered by the school would probably have to increase in the future because of the increased number of non-academically inclined students staying on to Year 12. Other factors that were seen by staff to influen · students in their decision to stay on to Year 12 were parental pressure and the way in which students identified strongly with the local area and its high youth unemployment statistics. Perhaps parental expectations and the changing nature of the Year 12 cohort, as well as the current curriculum offering, could explain why the questionnaire responses of the Year 12 students seemed to indicate a lack of personal and academic self-confidence. A number of students come into the school for the HSC year (19 per cent of the 1983 cohort), including some mature-age students, who were probably attracted by the senior college structure (Years 7 to 9 were located on a separate campus); also some Group 1 subjects were offered by the school that were not available at other schools in the area. In the interviews, the Year 10 students expressed support for the split campus concept; as far as the curriculum was concerned, they were particularly enthusiastic about some of the elective subjects (such as consumer education, cooking, and computer science) and would have liked to see more practical and community-based subjects available at senior levels. Like students from all the schools, they spoke very positively about work experience. With regard to the type of curriculum offered, one student commented: 'For people who want to go to university, the school's supplying them with the right education; but for people who want to go straight into a job, it's not good enough'.

Low Retention Schools

The four schools with a reasonably low rate of retention to Year 12 were situated in inner and outer suburban, semi-rural, and country areas. All had relatively small Year 12 cohorts, varying from 17 to 54. From the patterns of retention to Years 11 and 12 over the past four years, several trends emerge.

School 5. Retention rates had remained low and stationary in Year 11. In Year 12 there had been a slight increase in February 1983 but even this was not evident in the July figures (49 per cent).

School 8. This country school had shown a slow but steady rise in retention from Years 11 to Year 12, and a fluctuating pattern from Year 10 to Year 11, with the recent rise over 1982 and 1983 bringing it up to the 1980 level.

School 4. Retention rates had shown some fluctuation at the Year 12 level, but there had been a rapid rise in retention from Year 10 to Year 11, an increase of 34 percentage points over the last two years.

School 7. The retention rate to Year 12 had been low and stable (apart from a dip in 1982), but there had been a 26 percentage point rise over the past two years from Year 10 to Year 11.

The rises in Year 10 to 11 retention rates in Schools 4 and 7 were the highest recorded in any of the sixteen schools (apart from the fluctuating rate in School 15). This may be an indication that these are potential or actual 'turn-around' schools, schools that are in the process of turning from low into high retention rate schools. A further indication of possible turn around came from the questionnaire to Year 10 students, in which 64 per cent of School 4 students and 51 per cent of School 7 students indicated their intention to complete Year 12, compared with an all-school average of 53 per cent (varying from a low of 31 per cent to a high of 70 per cent).

Do the detailed studies provide any evidence of the reasons for the turn around?

'Turn-around Schools'

School 4. This school was in a suburban location on the outskirts of an industrial area. Youth unemployment was high - about 20 students who left school in 1982 at the end of the Year 10 returned to do Year 11 in 1983 only because they could not find work. A school review was undertaken in 1980 in School 4, and since then some organizational and curricular changes have taken place. The main organizational change was the formation of the Curriculum Committee to counteract the faculty orientation and fragmentation that had previously characterized school operations. The Committee had undertaken a major curriculum review in 1983, involving consultation with parents, ex-students, and staff in other local schools. Curricular changes had been introduced at the middle and senior levels of the school: an elective program had been operating for two years in Years 9 and 10; and, in 1983, a transition education course was introduced in Year 11, based on community studies and an 'active learning' style which was student-centred rather than teacher-centred, with an emphasis on negotiation of the curriculum. There were 27 students taking active learning subjects in 1983, and over 100

students were expected to take these subjects in 1984. It was planned to extend the active learning approach down to Year 10 in 1984.

Monthly meetings had been introduced for parents, students, and teachers from the alternative Year 11 course. Feedback from parents was positive; they reported changes in students' perceptions of school and behaviour at home. The school had received funding for a three-day residential inservice education program on negotiating the curriculum, to be undertaken by the nine active learning teachers and four other teachers at the end of 1983, with a follow-up program in mid-1984. The principal felt that 'inservice education is the starting point for things to happen in a school but only when a significant number of staff see it as important that it should happen'.

There were no projected changes for the Year 12 curriculum in the immediate future - it was still an academic curriculum, offering HSC Group 1 subjects only, and many Year 11 students have sought advice from the careers teacher on alternatives to HSC. The initiatives for change in Years 10 and 11, and the lack of change in Year 12 could explain the higher than average level of satisfaction recorded by Year 10 students at School 4 on the Quality of School Life questionnaire, and the lower than average level of satisfaction recorded by Year 12 students.

School 7. The school had for some years provided a traditionally based curriculum, with additional emphasis on English language development to cater for the large number of students from a non-English-speaking background. However, in recent years and especially in 1983, there had been some significant changes in aspects of the school program. A system of core teams of teachers and students was introduced in 1983 to operate at each year level in Years 7 to 10 to provide (as well as normal teaching) pastoral care, academic reinforcement, and community activities. In Year 11 a business studies course was available, and specialist science subjects were introduced for the first time in 1982 (the school has been long established but without an academic tradition - until 1978 no Year 12 program was available at the school). In 1982 a Year 12 course with a business studies orientation was introduced, comprising a range of HSC Group 2 subjects; in 1983 a full range of mathematics and science subjects was offered for the first time.

In terms of policy formulation at School 7, three structures appeared to be important. First, the school had as a curriculum co-ordinator a member of staff appointed with a special duties allowance. That person had co-ordinated suggestions from other members of staff and facilitated the discussion of new ideas. Secondly, there was a long-established curriculum planning sub-committee of the school council which had a number of teachers on it. Recommendations for changes were placed before this committee which advised the school council and principal. Thirdly, in 1983 a curriculum task force had been formed with financial assistance from the Transition Education

Advisory Committee. It comprised five teachers and the careers teacher, and its first tasks were to explore the concept and supervise the implementation of a negotiated curriculum and goal-based assessment.

Students' appreciation of the attempt to cater more fully for a range of student needs at the middle and senior school level was reflected in the outcomes of the questionnaire to Year 10 and Year 12 students - at both year levels, students showed an above average level of satisfaction with nearly all domains of schooling.

Schools 5 and 8

In School 5, the retention rate from Year 11 to Year 12 had risen slightly over the past four years and the retention rate from Year 10 to 11 had fallen slightly; the overall rate of retention to the senior years was low. There was a big loss of students at the end of Year 10 - the retention rate of 62 per cent to Year 11 was the lowest in the sample. Why did these students leave? Some explanation was provided by the data from the group interviews and questionnaires to Year 10 students. On the School Life questionnaire, the students from this school recorded the lowest level of satisfaction in four of the seven domains of schooling; they were least positive in items that dealt with interest in school work, enjoyment of school, coping with school work, and feeling important. In the interviews, the Year 10 students made it clear that they did not like the exclusively academic emphasis in Years 11 and 12, and would have preferred the teaching of more practical subjects and skills.

Up to Year 10, the school had made a real attempt to cater for a range of student interests and abilities: a special learning program had been operating in Years 7 and 8 for the past four years; a series of diverse elective units was introduced in Year 9 in 1983; and in 1984 technical subjects would be offered to Year 9 students in a new special-purpose building.

The small number of students that remained to Year 12 did so because the academic orientation (HSC Group 1 subjects only) was what they wanted: in the School Life questionnaire their level of satisfaction was about the average for the sixteen schools. The problem lay with the bulk of early school leavers who could not find what they wanted in the senior levels of the school. The problem had been compounded in recent years because of the changed nature of the Year 11 cohort - many teachers claimed brighter students were leaving school to get into the labour market early, thus taking the jobs that would previously have fallen to the less academically able, and forcing these students to return to school and an academic curriculum. The school did not seem to have come to terms with the recommendations of the school review that took place a couple of years ago; the major criticism made by the review panel was that the school was not catering adequately for the full range of students in its care, especially at the higher levels.

School 8 was a small country high school, with only 17 students in Year 12. In 1980-81 it had the lowest retention rate to Year 12 of any of the 16 schools: since then it has shown a slow but steady increase, and in July 1983 had the highest Year 11 to Year 12 retention rate in the group of low retention schools. It was a stable school with a traditional academic approach and, as surveys had shown, it was held in high regard by the community. Those students who did remain to Year 12 seemed to be well pleased with what the school had to offer them: in the questionnaire to Year 12 students, these students recorded much higher than average satisfaction with several of the domains of schooling, particularly in items that concerned enjoyment of school, interest in learning, teacher-student relationships, and feeling successful as a student.

In the group interviews with Year 10 students, some students said they would like subjects with a more practical orientation to be available to them in Years 11 and 12, and some staff had put forward for discussion proposals for alternative courses at the senior level. However, the principal and most staff, as well as the community, felt that the school's capacity for change was limited by its small size, and that the school should concentrate on doing what it knew it could do well - provide a sound academic education, even if it was only for a small sector of the school population at the Year 12 level.

Medium Retention Schools

As with the schools in other categories, the five schools with medium retention rates to Years 11 and 12 were in widely spread locations. The socioeconomic level of the school populations was not as varied as in the other categories - all were higher than the average for Victorian schools; however there was some variation in the proportion of students from non-English-speaking family backgrounds. All but one of the schools offered a traditional academic curriculum at the senior levels.

School 12 deserves a special note because, even though it was selected in the medium retention category on the basis of its residual retention rate, it would have been classed as high retention on the basis of the 1983 data or even on the basis of unadjusted retention rates. School 16 also showed evidence of an increase in its retention in 1983.

School 12. The school had maintained a high retention rate to Year 11, and over the past four years has shown an increasing retention to Year 12, from 60 per cent in 1980 to 85 per cent in 1983; 31 percentage points of the latter figure could be attributed to students who had come into the school to do the HSC Group 1 subjects, probably because of the school's good academic reputation. The school was located in an area where there were decreasing enrolments in secondary schools; possible closures would lead to increased numbers of students at School 12, and perhaps the establishment of a senior college. It seemed unlikely that the school would change its academic orientation and its policy of offering HSC Group 1 subjects only, as long as this emphasis continued

to receive strong support from staff and parents. Students too seemed to have an academic inclination - 78 per cent of the Year 12 students planned to go on to full-time study, 18 per cent more than the average for all students in the sixteen schools. For these students, the level of satisfaction with school that emerged from the student questionnaire was above average. Year 10 students' responses varied about the mean; in the group interviews, students were particularly supportive of the Year 10 program in consumer education, careers education, and music, and indicated that they would like to see some practical and technical subjects offered at the senior level.

School 16. There was some evidence that School 16 was a 'turn-around' school. It had shown a gradually increasing retention rate with a big jump to 73 per cent retention from Year 11 to Year 12 in 1983 - very high for a country school, and it seemed to be meeting the needs of its senior students by offering Year 12 students an academic course and what amounted to an alternative course with four Group 2 subjects (supplemented by other Group 2 subjects available through the technical school). As well, 65 per cent of the Year 10 students stated a firm intention to continue to Year 12 - the third highest percentage for the 16 schools. A lot of effort had been put into curriculum planning in the school. A wide range of electives was available to students as they progressed through the school, particularly at Year 11 where the curriculum included academic, vocational, and general subjects. In Year 12, students could choose from HSC Group 1 subjects and Group 2 English, with Group 2 subjects from the business and secretarial studies area as well as Year 12 subjects at the technical school. Staff recognized the need for this vocational orientation at the senior level, for many of the Year 12 students entered the workforce rather than tertiary education; in the Year 12 questionnaire 47 per cent of students from this school planned to take a full-time job alone compared with an average of 23 per cent. The success of the school's operation was evident in the questionnaire responses: Year 10 students' level of satisfaction was particularly high in schooling; and teachers showed high levels of satisfaction with students, work conditions, and the organizational environment.

School 13. The school had an academic tradition, which parents had supported, but staff had recently queried the advisability of continuing this philosophy; they felt that, in order to encourage retention and to meet the needs of the students in Years 11 and 12, it might be necessary to introduce alternative subjects or courses at these levels. In both the interviews and the questionnaires, Year 10 students indicated that they did not find school a particularly enjoyable or interesting experience. Teacher satisfaction, according to questionnaire results, was also rather low - perhaps explained by the lack of continuity in the leadership of the school which staff felt had reduced their incentive to initiate change. Some moves have been made to broaden the curriculum, such as the inclusion of subject options at the local technical school.

School 15. This was another school with an academic tradition that was supported by most parents and teachers. Some teachers felt that there was a need to expand the curriculum offering so that the needs of all students could be met. The achievements, aspirations, and attitudes to Year 12 students would support this idea: the pass rate at HSC was relatively low (between 55 and 65 per cent); fewer Year 12 students planned to undertake further full-time study (46 per cent compared with a 60 per cent average for students in all schools in the sample); and the level of satisfaction with school was lower for these students than the average for all schools in six of the seven domains. The school had begun a broadening of its curriculum by offering a terminal alternative Year 11 course, which might have explained the increase in retention of students to Year 11 from an average of 64 per cent in the period 1980-82 to 98 per cent in 1983, making it a possible candidate as a future 'turn-around' school. An HSC Group 2 subject was offered to Year 12 students for the first time in 1983.

School 14. This school faced the problem of having to make a name for itself as a new school in the community. It had chosen to follow the traditional academic line and, as a small school (with a Year 12 cohort for the first time in 1983), it could offer only a limited range of subjects. Year 10 students complained of these limitations in the group interviews, and both Year 10 and Year 12 students showed a lower than average level of enjoyment of school and interest in school work in the student questionnaires.

In Summary

In Chapter 1 we hypothesized that young people remained at school if they believed that school was a satisfactory place to be in terms of their school experience and that there were future benefits to be gained from what schools offered. Thus the focus of the study of the sixteen schools was on curricular orientations and organizational structures, and on students' attitudes towards these factors.

One of the analyses of Victorian high school retention data discussed in Chapter 3 suggested that the provision of alternative courses of study in the post-compulsory years of secondary school was linked to higher retention rates. This finding seemed to be reinforced by the information gathered in the study of the sixteen schools. The schools which offered alternative courses at Years 11 and/or 12 were all high retention or possible turn-around schools. It was in these schools, rather than in the others, that students made positive comments about enjoyment of school, good teacher-student relationships, and interest and relevance of school work. In addition, most of these schools showed evidence of program co-ordination across year levels and organizational structures that facilitated the pastoral care of students. A recent report on Australian schools (Batten, 1983) has shown that the various factors discussed in this paragraph were related to successful school practice. In that report, the three common elements

of observed successful practices related to school program were continuity and co-ordination of program, provision of alternative curricula, and matching programs to the needs of students.

The high retention schools that did not offer an alternative curriculum at Years 11 and 12 were all schools with an academic orientation and successful HSC records, factors shown by Power (1983) to be associated with high retention rates. These schools, as well as medium and low retention schools with an academic orientation, felt that they were fulfilling the expectations of the school community by offering an academic curriculum, although some of the schools were exploring possible ways of broadening the curriculum at the senior levels. Year 10 students in most of the academically oriented schools expressed a wish for the inclusion of subjects with a practical, technical, technological, and social emphasis in the senior curriculum. There was almost universal agreement among the Year 10 students interviewed that Year 12, when it involved HSC Group 1 subjects, was a year to be dreaded because of the intense pressure, the heavy workload, and the dependence on the outcome of one examination; yet students felt locked into the system because of tertiary entrance requirements and employer attitudes.

There was a strong indication from the group interviews and the student questionnaires that students did, or would, appreciate different approaches to learning and a range of different types of subjects. Those who had experienced or heard about alternative courses spoke positively about aspects such as a more practical emphasis, student involvement in planning, more and closer interaction with teachers, emphasis on increasing self-confidence and developing independence, and relating school work to the world outside the school fence. The individual Year 10 subjects that students had particularly enjoyed and felt had been of benefit to them were those with a practical relevance to students, such as consumer education, careers education, and English.

The study of the sixteen schools had two components: the questionnaire surveys of Year 10 and Year 12 students, former students, teachers, and parents; and the interviews with teachers, principals, and Year 10 students. The outcomes of the second component of the study served to reinforce and illuminate the quantitative findings in the ways which have been described in previous paragraphs. In addition, the outcomes provided some new insights into the school processes which contributed to high levels of student retention. There were four aspects of the school process that deserve particular mention. In schools where an alternative course had been introduced in Year 11 or Year 12, those innovations had an effect on the curriculum at lower year levels, which could be seen in greater curriculum diversity, more community-linked subjects, and teaching approaches that placed more emphasis on the development of student independence and student participation in course planning. Most of the schools which offered an alternative course at the senior level had incorporated pastoral care structures into the organization of the school to support the innovations in academic structure. The visits

to schools and the discussions with staff and students revealed that there were two types of high retention schools - those that sought to maintain an established record of high academic achievement, and those that had consciously sought a broader educational orientation and offering at the senior levels. Year 10 students in the latter schools expressed support and enthusiasm for the alternative approaches, while students at the academic schools were not as satisfied with their present or prospective school experiences and expressed a preference for a broadening of the curriculum at Year 12. The final insight provided by the visits to the schools was that successful curriculum innovation had not been achieved by administrative imposition nor by the singular efforts of individuals. It appeared to grow from and develop within the framework and philosophy of the school, and could best be brought to fruition through the co-ordinated endeavour of a group of teachers.

The actions of schools and the opinions of students discussed in this section find support in a report from the Schools Commission (1980), Schooling for 15 and 16 Year Olds. A major conclusion of the study was that 'in their general orientation most schools lag in their adjustment to the needs of the full range of students for the last two decades of the twentieth century' (Schools Commission, 1980:5). The report goes on to call for a fundamental reappraisal of the approach to the compulsory years of schooling, which has serious implications for the final two years of secondary school.

The Commission outlined two principles which it believed should govern the adjustment which schools need to make. The first principle was valuing the whole age-group, thus increasing the confidence and competence of all students: 'every student should be valued and positively expected to succeed' (Schools Commission, 1980:7). The second principle was relating knowledge to life. The Commission rejected the sole reliance on a mode of learning suited to those bound for tertiary education, and also rejected curriculum content that was based solely on student interest. It believed that 'schools must fulfil both these functions: they must pass on the cultural content but in a way which engages with the learner's present experience' (Schools Commission, 1980:11).

Both these principles underlie much of the thinking and actions that have taken place in those schools in our study which have discussed and implemented curricular and organizational change.

CHAPTER 7

TEACHERS, PARENTS, AND FORMER STUDENTS

Chapter 5 was concerned with students in high schools and the influences which might have shaped their decision to remain at school until Year 12. The present chapter explores the perspectives of parents, teachers, and former students. It examines the views of those groups about the roles of schooling in Years 11 and 12, the factors which they saw as influential on the decision to remain at school and, in the case of former students, their retrospective views about the quality of their school experience. The retrospective views of former students were examined in two ways. One approach was to analyse the responses given to an 11-item scale concerned with how well school prepared them for adult life. The other was to report the comments made by these respondents about their school experience. Also contained in the chapter are some brief comments by former students about their activities and 'quality of life' since leaving school.

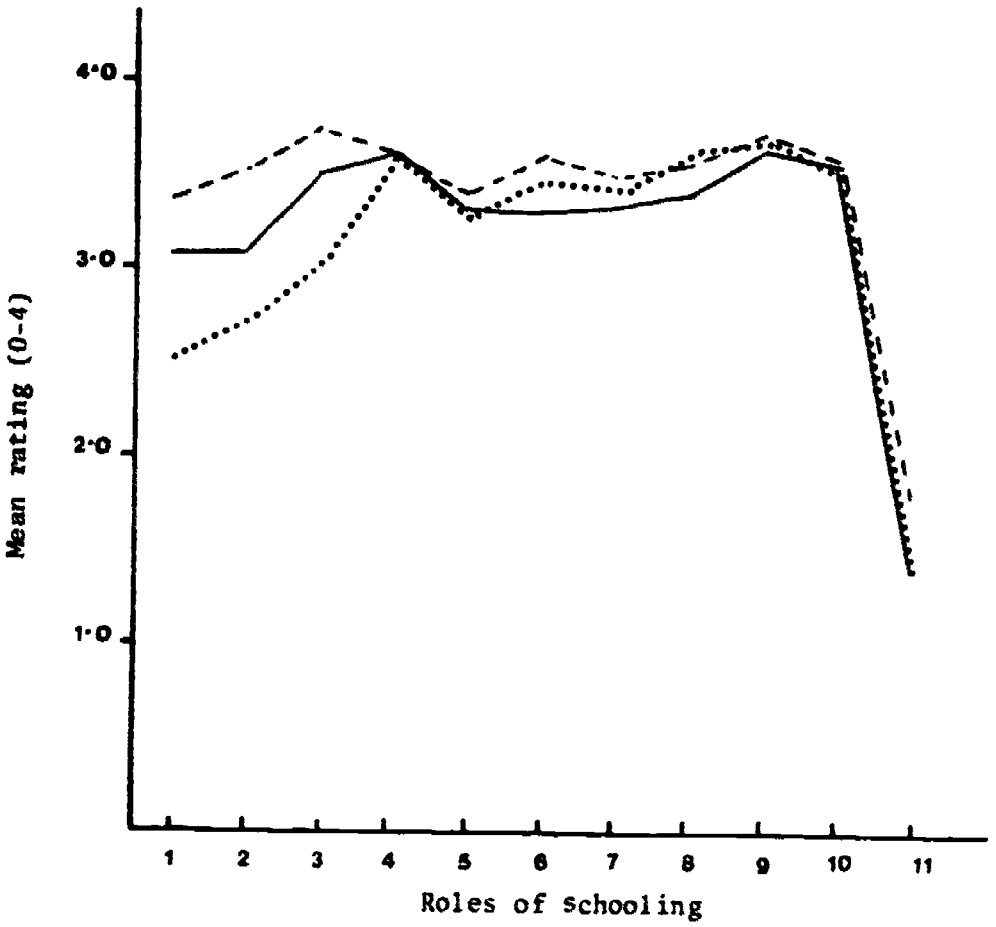
Details of the three surveys involved were provided in Chapter 2. The former students were those from the fifteen schools who had completed Year 12 during 1982 (one of the sixteen schools did not have a Year 12 until 1983). Some 77 per cent of the target sample responded to the survey. The parents were parents of a sample of students from Year 10 in the sixteen schools in 1983. Replies were obtained from 84 per cent of the families involved. In practice this yielded 862 replies as replies were sought from both parents if that was possible. The teachers were approached in the schools during our visits. Some 493, replied which represented just under 70 per cent of the teaching staff at the schools.

The Roles of Schooling in Years 11 and 12

In comparing the perspectives of the three groups of people surveyed, the study examined the way in which the responses to 11 statements about the roles of schools formed clusters of items to which similar responses were given, the similarity of the profile of responses by each group, and differences in responses to particular items. In addition, some comments have been made about differences among former students, parents, and teachers in the emphasis they accorded to different roles of schooling.

Group Comparisons

Item clusters. One difference in the perspectives of former students, parents, and teachers was noted in Chapter 2. For both parents and teachers, the set of 11 statements about the roles of schooling in Years 11 and 12 could be grouped in two



Key: Roles of Schooling

1 concentrate on academic subjects in preparation for HSC
2 aim to achieve a high standard of performance in Year 12 examinations
3 prepare students for their future careers
4 offer a wide range of subjects, both academic and general
5 equip students with daily living skills
6 enable all students to experience success and acquire confidence
7 encourage students to develop links with the community
8 develop students' sense of worth and personal identity
9 develop student independence in thought and action
10 give all students the opportunity to continue their education
11 cater for only the most able students

..... Teachers
——— Former Students
– – – Parents

Figure 7.1 Roles of Schooling in Years 11 and 12 as Perceived by Teachers, Former Students, and Parents

clusters. One set of three items related to an academic or career orientation to schooling. In Chapter 2 this was designated as 'Role B'. A further cluster of seven items was concerned with a general or liberal role of schooling which was designated as 'Role A'. For both groups, the item 'cater only for the most able students' was not able to be assigned to either cluster; few people agreed with that view.

The pattern of clustering among the items for the former students differed from that described above in only one respect. The item 'prepare students for their future career' was part of the 'Role A' cluster for former students whereas it had been part of the 'Role B' group for parents and for teachers. One interpretation of this difference could have been that teachers and parents saw career preparation as linked to academic success, whereas former students saw preparation for a career as involving the broader aspects of schooling which formed part of 'Role A'.

Profile comparison. To examine the congruence of the perspectives of former students, parents, and teachers in greater detail, an analysis of the profile similarity across the 11 items was conducted. Both the overall similarity and the similarity for each item were inspected. The profiles, represented by the mean ratings for each group on each item, have been shown in Figure 7.1.

In examining the overall similarity, two measures have been used: the product moment correlation (r) and the distance measure (D). The product moment correlation measured the extent to which each pair of profiles possessed the same overall shape. The greater the similarity of shape, the closer the value of the correlation coefficient would be to unity. The more dissimilar the profiles, the closer would the value of the correlation coefficient approach zero. Values of the correlation coefficient indicated the similarity of the shapes of profiles, but profiles of similar shape could differ in terms of the level of effect and in terms of the dispersion or scatter. The distance measure (D), as described by Nunally (1967), provided a measure of profile similarity which combined shape, dispersion, and level considerations. The greater the value of D, the greater the difference between the profiles; and the smaller the value of D, the more similar the profiles. From Nunally, the value of D for two profiles was calculated as the square root of the sum of the squared differences between the means on the profile variables.

Values of the correlation coefficients and the distance measures for the comparisons of the three profiles have been recorded in Table 7.1. These data suggest a general similarity of views about the role of schooling in Years 11 and 12. The only area of slight difference was in the three Role B items. Parents tended to accord greater importance to those items (e.g. 'aim to achieve a high standard of performance in Year 12 examinations') than did teachers. Former students had views on those items which fell between the views of parents and teachers. On the items concerned with Role A

Table 7.1 Profile Similarity in Roles of Schooling

	Correlation coefficients[a]		D-values	
	Former students	Parents	Former students	Parents
Teachers	0.91	0.85	0.95	1.48
Former students		0.98		0.73

a Between mean ratings on items.

(e.g. 'develop students sense of worth and personal identity') there was no difference between the three groups. Neither was there any difference between the groups in expressing strong disagreement with the proposition that schools in Years 11 and 12 should 'cater only for the most able students'.

Differences among Former Students

There were differences in the emphasis placed by former students on Role A and Role B statements which were associated with the sex of the former student and the type of course which they had undertaken. Type of course referred to whether the student had been identified from school records as having been enrolled in an alternative program (either an STC course or, in one school, a school certificate course) or in a mainly Group 1 HSC program. Generally, female respondents placed a slightly greater emphasis on Role A statements than did male respondents, and respondents who had been enrolled in an alternative program during 1982 placed greater emphasis on Role A statements than did those who had been enrolled in the Group 1 HSC program. In terms of emphasis on Role B statements, there was no significant difference between males and females but there was a difference between the graduates of different programs. Students from alternative programs placed less emphasis on Role B than did those from Group 1 HSC programs. Details of the results have been recorded in Table 7.2 Initially a two-way analysis of variance was conducted. This showed that both sex and type of course had an effect on Role A but that the interaction term was not significant. A similar analysis showed that, for Role B only, type of course had a significant effect.

The difference between male and females students will be discussed later in conjunction with other sex differences. At this point, it is worth noting that in Chapter 5 it was reported that school factors were considered a more important influence on the decision to remain at school by females currently in Year 12, than by males. In terms of differences between former students from different types of program, the caveats should be applied that comparatively few of the sample were from alternative programs and that the study may not have identified all who were in such courses. Despite this, it did appear that the difference was in a direction which was congruent with the intentions of

Table 7.2 Former Student Views of the Roles of Schooling in Years 11 and 12 (mean scale scores are recorded)[a]

Course	Role A[b] Sex			Role B[c] Sex		
	Males	Females	Persons	Males	Females	Persons
Group 1	26.6	28.4	27.7	6.4	6.4	6.4
Alternative	27.9	30.2	29.4	5.2	5.6	5.5
All	26.8	28.7	28.0	6.2	6.3	6.3

a Of the 497 respondents, there were 471 cases with valid data. Of these there were 390 former students from Group 1 (146 males and 244 females) and 81 former students from alternative programs (28 males and 53 females).

b A two-way analysis of variance showed significant main effects for sex ($F = 35.9$, $p<0.001$) and course ($F = 15.8$, $p<.01$) but no significant interaction. A design effect value of 2 was assumed.

c A two-way analysis of variance showed a significant main effect for course ($F = 32.3$, $p<0.001$) but no effect for sex or for the interaction. A design effect value of 2 was assumed.

the alternative programs. Possibly the programs enrolled students of that disposition, or possibly the programs may have helped shape those views. Evidence from Chapter 5 suggested a similar orientation among students currently enrolled in Year 12.

Differences among Teachers

Differences among teachers in the emphasis placed on 'Role A' were not systematically associated with the years of teaching experience reported. The emphasis placed on Role

Table 7.3 Teacher Views of the Roles of Schooling in Years 11 and 12

Subject area	Role A			Role B		
	Mean	SD	N	Mean	SD	N
Mathematics/Science	24.1	3.0	133	8.6	1.8	128
Commerce	24.5	2.9	44	8.0	1.8	41
English, languages, humanities	25.3	3.1	194	8.1	1.9	188
Arts, performing arts	25.6	3.0	79	8.2	2.1	78
Homecraft	25.7	2.1	23	8.2	1.8	20
All	25.0	3.0	473	8.2	1.9	455
F ratio (4,468)	5.3			1.8		
Significance level[a]	<.001			n.s.		

a Assuming a design effect factor of 2.

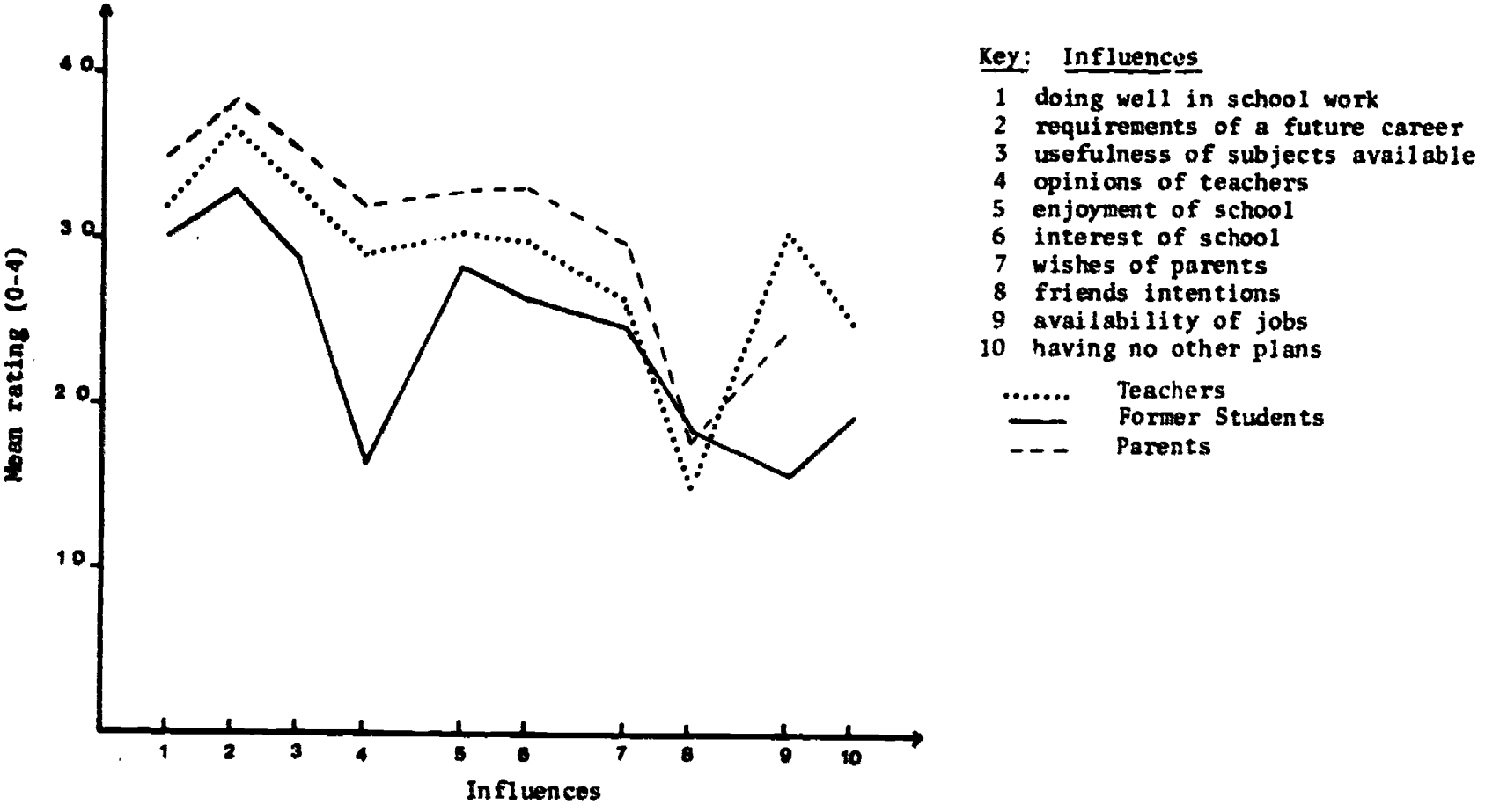


Figure 7.2 Importance of Influences on Students' Decision to Stay at School or Leave as Rated by Teachers, Former Students, and Parents

Table 7.4 Parent Views of the Roles of Schooling in Years 11 and 12

Role	Mothers		Fathers	
	Mean	SD	Mean	SD
Role A[a]	25.4	2.5	24.9	2.8
Role B	10.8	1.4	10.7	1.4
Number of valid cases	442		364	

a Difference in means is just outside the 5 per cent level if a design effect factor of 2 is assumed. If no allowance was made for design effects, the difference would appear to be significant at the 1 per cent level.

A was not significantly greater for teachers in their first three years than for teachers of more than 12 years experience. There was a slight tendency for teachers of greater experience to place less emphasis on Role B. There were differences between teachers in different subject areas in the emphasis placed on Role A though no differences were apparent with respect to Role B. The results have been recorded in Table 7.3. Generally, teachers who indicated mathematics or science or commerce as their first subject area placed less emphasis on Role A than did teachers in the humanities, arts, or homecraft areas. As noted in relation to other results, these differences referred to means and may have masked the significant overlap between subject areas. It was possible that the differences arose from the differing percentages of males and females in each subject area. The data did not permit this to be tested.

Differences among Parents

For parents, the responses of mothers (or female guardians) were compared with those of fathers (or male guardians). Generally mothers tended to place a little greater emphasis on Role A than did fathers but there was no difference in the emphasis placed on Role B. Table 7.4 contains the relevant results. Even though the difference was small, the pattern of difference between mothers and fathers was the same as that between female and male former students.

Influences on the Decision to Stay at School

In Chapter 5 it was noted that students in Year 12 considered that the most important factors influencing them to remain at school were career related or a sense of doing well at school. Enjoyment of school and interest in school work were in the middle to lower range of importance. Least important to these students were teachers' opinions and friends' decisions though parents' opinions were of rather more importance. Generally these results were congruent with the reasons given by Year 10 students in deciding whether to stay at school or leave.

Table 7.5 Profile Similarity in Influences on Staying at School

	Correlation coefficients[a]		D-values	
	Former students	Parents	Former students	Parents
Teachers	0.60	0.87	2.27	1.08
Former students		0.66		2.43

a Between mean ratings for items.

The present chapter has considered the views of former students, parents, and teachers about factors which could influence a student's decision to remain at school. Former students were asked to rate the importance of each of ten factors in terms of their own decision to proceed to Year 12. Parents were asked to give importance ratings in terms of their own child currently in Year 10. Teachers were asked to indicate the importance of each reason in a situation where they were advising students in Year 10 about staying at school or leaving.

Figure 7.2 portrays the profiles of mean importance ratings given by each of the three groups. In displaying these ratings, the items have been clumped in four groups: items concerned with success at school or career requirements, items concerned with interest or enjoyment, items concerned with parents and friends, and items concerned with a lack of alternatives. Measures of profile similarity, as discussed in the preceding section, have been recorded in Table 7.5.

Even though there were some differences in the ratings given to the listed influences, there was an overall similarity in the group profiles. For all groups, the influence given the highest importance rating was 'the requirement of a future career'. 'What friends were doing' was rated least important by teachers and parents and was the second least important influence according to former students (behind 'the opinions of teachers' by a whisker). The importance ratings given by former students were remarkably similar to those of current Year 12 students (see Chapter 5). For the eight items which were common to current and former students, the correlation coefficient had a value of 0.95 and the D value was 0.3.

As can be seen in Table 7.5, parents and teachers held views which were more similar to each other than to those of former students. Differences between teachers and former students were most marked with regard to whether a job was available. Teachers rated this as fairly important in advising students but former Year 12 students indicated that this had not been important, or only slightly important, to them. The views of parents were between these two ratings. Parents and former students differed with regard to the influence of the opinion of teachers. Parents rated this as fairly important but former students considered it as less than slightly important. Teachers themselves gave the item a rating between that of parents and former students. It was

Table 7.6 Former Student Ratings of Reasons for Staying at School to Year 12

Reason	Mean Rating[a]		
	Males	Females	Persons
I needed a pass in Year 12 for my future career[b]	3.16	3.38	3.30
I did well in my school work	2.83	3.12**	3.01
I was able to do subjects that were useful to me[c]	2.77	2.93	2.87
I enjoyed school	2.65	2.92*	2.82
School work was interesting	2.41	2.76**	2.63
My parents wanted me to stay at school	2.47	2.47	2.47
I had no other plans[c]	1.85	1.97	1.92
Most of my friends stayed at school	1.87	1.78	1.82
My teachers thought I should stay at school	1.51	1.68	1.62
I couldn't find a job[c]	1.52	1.61	1.58

a Scale 1 = not at all important; 2 = slightly important; 3 = fairly important; 4 = very important.

b Denotes item rated more important by former Group 1 students than by former alternative course students.

c Denotes item rated more important by former students of alternative programs than by those from Group 1 programs.

Significance levels assume a design effect factor of 2. N = 485.

* Difference significant at 5 per cent level.
** Difference significant at 1 per cent level.

also noteworthy that parents and teachers rated school factors (usefulness of subjects, interest in work, and enjoyment) as more important than did former students. Overall, these differences seemed less substantial than the general similarities in the profiles.

In Chapter 5 attention was drawn to several hints of a slightly stronger influence of school effects on the decision for females to stay at school than for males. Among former students a similar pattern emerged. Females gave higher ratings than males to the importance of such statements as 'school work was interesting' and 'I enjoyed school' as well as 'I did well in my school work'. There was a marginally higher rating accorded by females than males to 'my teachers thought I should stay at school'. Details have been shown in Table 7.6. Even though the differences on individual items were small in magnitude, the cumulative pattern seemed worth noting.

There were some differences between former students who had completed different types of course. Those who had completed a Group 1 course gave a higher rating to 'I needed a pass in Year 12 for my future career' than did those from alternative programs. Conversely the latter group tended to award a higher rating than the Group 1 students to 'I could do subjects that were useful to me', 'I couldn't find a job', and 'I had no other plans'. Differences in means such as those noted here can obscure the

Table 7.7 Scale Scores on the Retrospective Views of School Scale[ab]

	Mean score[c]			
	Males	Females	Persons	
Group 1 programs	28.9	28.9	28.9	(380)
Alternative programs	31.1	35.0	33.5	(82)
All programs	29.3	30.0	29.7	
	(170)	(292)		(462)

a For details of the scale, see Chapter 2.

b Number of cases shown in parentheses. Of the 497 respondents there were 462 with usable data on this scale.

c A two-way analysis of variance showed a significant main effect for type of course ($F = 51.5$, $p<0.001$) and a significant interaction effect for sex and type of cource ($F = 8.5$, $p<0.05$). Design effect factor assumed as 2.

Table 7.8 Mean Ratings for Items on the Retrospective Views of School Scale

	Mean rating[ab]		
	Group 1	Alternative	All
Basic skills of reading, writing and calculation	3.44	3.30	3.42
Critical thinking and problem-solving skills	3.17	3.08	3.16
Ability to work independently	2.96	3.34**	3.03
Study skills	2.82	2.83	2.82
Self-awareness and understanding other people	2.67	3.23***	2.77
Knowledge of career options	2.57	3.13***	2.67
Specific skills and knowledge in your job or tertiary career	2.63	2.83	2.67
Knowing how to obtain a job	2.19	3.13***	2.38
Skills and activities for use in leisure time	2.21	2.82***	2.33
Experience of what work is like	2.08	3.19***	2.29
Knowledge of government and community structures	2.13	2.73***	2.23

a Scale 1 = very poorly; 2 = rather poorly; 3 = rather well; 4 = very well.

b N = 485.

** Difference significant at the 1 per cent level.

*** Difference significant at the 0.1 per cent level assuming a design effect factor of 2.

extent of overlap, but the data suggested that different types of factors could have attracted students to each of the available programs.

Retrospective Views of Schooling

Part of the questionnaire to former students invited them to indicate how well their last years at school had prepared them for their post-school life in a number of areas. Eleven areas were listed and, as explained in Chapter 2, the items formed a reliable scale. In this section the responses to that question have been examined. The first part looks at the scale scores in relation to sex and the type of course undertaken during 1982. Subsequently the responses to individual items are examined to determine with greater precision the general differences which emerged in the scale scores. Finally, the school means on this scale have been compared with the school means on the quality of school life scales to determine whether there was an underlying perception of school effectiveness shared between current students and former students.

General Views

In responding to each item, former students were able to use a four-point scale (from 'very poorly' to 'very well') or to indicate that the item 'does not apply'. For the analysis of scale scores, the 'does not apply' responses were assigned to the item mean score as this reduced the amount of missing data arising from just one missing response on an 11-item scale. Even though other results have not been reported, the analysis was also conducted using listwise deletion and no difference in the pattern was observed. A two-way analysis of variance was conducted using 'retrospective view of school' as the dependent variable with sex of respondent and type of course as the independent variables. That analysis showed that there was a significant main effect for type of course and a significant interaction effect of sex and type of course. There was no main effect of sex. Mean scale scores for each category of respondent have been shown in Table 7.7.

The results in Table 7.7 show that the direction of the main effect for type of course was in the direction of students from alternative programs having given a higher rating to their last years of schooling than had students from Group 1 based programs. The interaction was such that this difference was greater for female students than for male students. Indeed the difference in mean scores for each type of course was statistically significant for female students, but was just outside the 5 per cent level for male students. The interaction has been shown graphically in Figure 7.3. An interpretation of the apparently stronger impact of the courses on female students than male students is difficult at this stage. It is an issue to which some attention will be given in the final chapter.

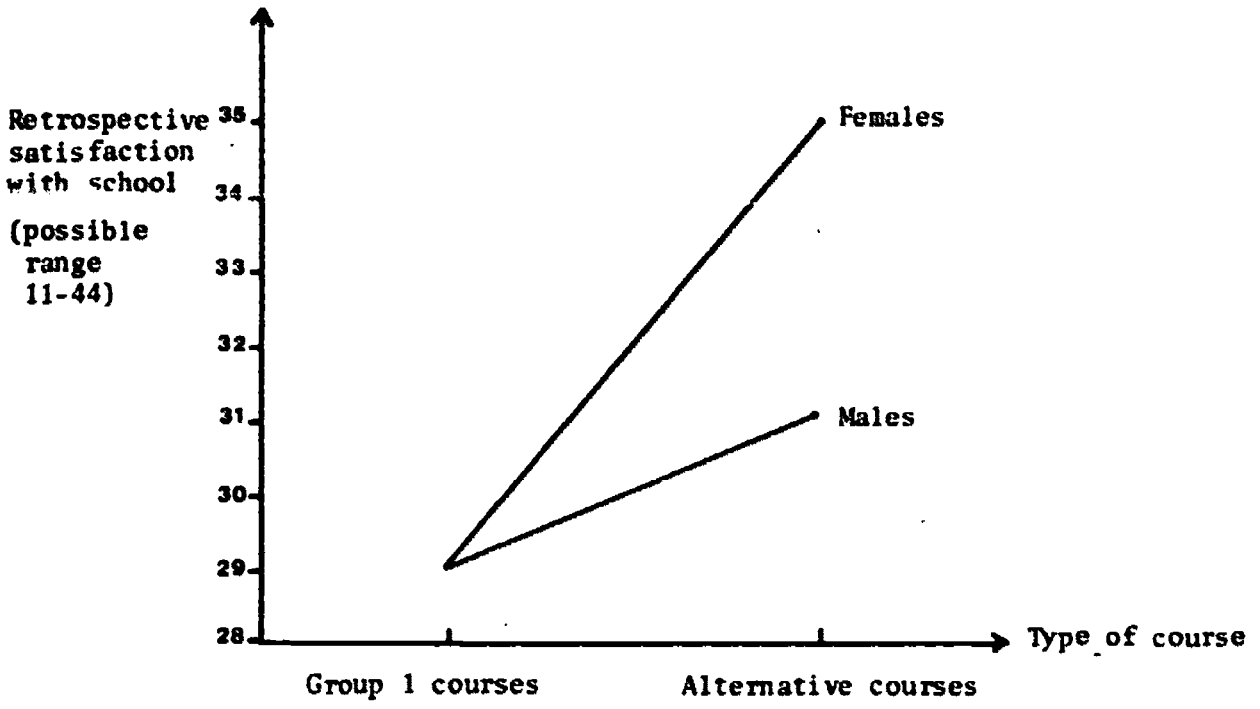


Figure 7.3 The Interaction Effect of Sex and Type of Course on Retrospective Satisfaction with School

Item Responses

To probe in greater detail the effect of type of course on the retrospective views of school held by former students, the mean ratings given to each of the 11 items were examined. The relevant data have been recorded in Table 7.8. In that table the areas, about which former students were asked to indicate the adequacy of their school preparation, have been listed in order of the ratings given. Generally the respondents considered themselves best prepared in areas of skills (basic skills, problem solving, working independently, study skills), and least well prepared in broader aspects of life (knowledge of community and government, experience of what work is like, leisure activities, obtaining a job). Middle rankings were assigned to the areas of 'self awareness and understanding people', 'knowledge of career options' and specific skills, and 'knowledge in a job or tertiary career'. In brief, the respondents considered themselves rather well prepared in the skills which have been traditionally developed in the senior years of schooling and a little less well prepared in the broader functions of schooling.

Table 7.8 presents the mean ratings of former students from different types of course. Differences in terms of the perceived adequacy of preparation with respect to work and study skills were not significant. The differences which were statistically significant were in broader aspects of schooling. In all cases where the difference was statistically significant, the direction of the difference was towards those from

alternative programs rating their preparation more favourably. In order of effect size (expressed in standard deviation units), the items on which differences were observed were as follows:

- experience of what work is like (Δ = 1.2)
- knowing how to obtain a job (Δ = 1.1)
- skills and activities for use in leisure time (Δ = 0.7)
- self-awareness and understanding other people (Δ = 0.7)
- knowledge of career options (Δ = 0.7)
- knowledge of government and community structures (Δ = 0.6)
- ability to work independently (Δ = 0.5).

Hence it was differences in the ratings given to these items which resulted in the differences in the scale scores observed in Table 7.7. To some extent the inferences drawn from Table 7.7 could be shaped by the priorities attached to the items listed above. The scale scores assume that all items have been weighted equally.

In general, it would appear from these results that former students of alternative programs rated the adequacy of their school preparation better than did former students of Group 1 programs in the areas listed above and equally adequate in the other areas.

Differences between Schools

The ratio of between-school differences to within-school differences in the retrospective views of schooling was statistically significant. On the basis of the rationale for the quality of school life scales, it would be expected that two would be significantly associated with the retrospective view of schooling scale, which asked about how well school had prepared students for their subsequent experiences. The two quality of school life scales were 'opportunity' which referred to the belief that what was learnt in school would be useful in the future and 'achievement' which referred to students feeling successful in what they did at school.

It was considered that the most valid test would be based on 14 of the 15 schools as one of the schools had been noted in Chapter 6 as a 'turn-around' school with substantial changes in curriculum and organization between 1982 and 1983. That school (School 7) was the one which showed the greatest discrepancy between the retrospective views of former students and the current views of Year 12 students. For the sake of completeness when the correlations between school means were recorded in Table 7.9, values were based on 14 schools (excluding School 7) and 15 schools (including School 7).

The results showed that there was a strong correlation between the 'opportunity' and 'achievement' scores for current students and the retrospective views scores of former students. This suggested there was an underlying quality of schooling dimensions

Table 7.10 Breakdown of Former Students' Comments about School

Topic of comment	Comments in general category %	Comments in sub-category %
Curriculum		
Need for more living skills and related subjects in curriculum	36	12
Provision of subjects to cater for both academic and non-academic students		7
Provision of more career advice		5
Insufficient preparation for Year 12 in early years of secondary school		4
More specific preparation for tertiary study		3
Various other		4
Year 12		
Criticism of HSC marking system	25	5
Personal development and social relationships during Year 12 - positive comment		4
Stressful, competitive nature of the HSC year		4
Academic emphasis of HSC		3
STC/TOP - positive comment		3
Various other		6
Affective		
Positive remarks about school/education	20	13
Negative remarks about school/education		6
Various other		1
Teaching		
Student-teacher relationships - positive comment	11	5
- negative comment		3
Various other		3
Opportunity		
Career and employment opportunities associated with post-compulsory education	7	7
Other	3	3

Table 7.9 Correlation Coefficients between School Means for Retrospective Views of Schooling and Quality of School Life Scales[a]

Quality of school life scale	Retrospective views of schooling	
	14 schools	15 schools
Positive affect	0.30	0.06
Opportunity[b]	0.60	0.44
Achievement[b]	0.74	0.68
Teachers	0.62	0.46
Status	0.53	0.34
Identity	0.17	-0.06
Absence of negative affect	0.58	0.46

Note: Coefficients significant at the 5 per cent level have been underlined.

a Critical values for 14 cases and 15 cases were 0.43 and 0.41 respectively.

b Scales for which a positive correlation was hypothesized.

being captured by each of the questionnaires. However, the associations were more general than had been expected. Associations with retrospective views of schooling were also found for the 'teachers' scale and the 'absence of negative affect' scale. Smaller positive associations were found between the 'status' scale and retrospective views of schooling.

For there to have been positive associations between the quality of school life scores for 1983 Year 12 students and retrospective views of schooling scores for 1982 Year 12 students, three conditions would have been present. First, each instrument would have captured a common characteristic related to the quality of schooling. Hence the results provided a cross validation of the scales. Secondly, there would have been a general similarity in the program and organization of the schools across the two years. Where a large discrepancy existed, the school was known to have been changing. Thirdly, the characteristics of each cohort would have been similar. Absence of any of these conditions would have resulted in low values of the correlation coefficient.

Comments on School: The Perspectives of Former Students

This section provides a summary of the comments made by former students (those who did Year 12 in 1982) concerning their views about school and education in general. Of the 497 respondents, 302 (i.e. 61 per cent) offered between one and six comments; in total, 582 statements were coded. Female respondents contributed 62 per cent of the remarks while 37 per cent originated from males. Table 7.10 presents the percentage of comments made in each of six general categories with a more specific breakdown of statements listed under each heading.

Curriculum

The largest number of comments (36 per cent) were concerned with school curriculum - its content and organization. Former students frequently referred to the need to be more adequately prepared for 'life outside school'. In view of the current employment outlook, it was suggested that more practical and socially relevant subjects/skills be incorporated in the curriculum to cater for the needs of those who intended to join the workforce, as well as preparing school leavers, as a whole, for the possibility of unemployment: for example, advice on how to use spare time productively, with limited resources, while seeking a job. Some of the comments given in this category were:

> There should be more emphasis on teaching students basic general knowledge in respect of the community and expected participation in it, the job world and keeping yourself together.
>
> More emphasis should have been placed on 'real-life' situations such as writing cheques, tax returns, budgeting etc.
>
> More subjects that prepare you for the 'outside world' and less 'spoonfeeding' in Years 11 and 12 . . . important to develop independence as it is something greatly needed in community life, whether at university, college or work.
>
> The insulation experienced at school does not equip the student for the realities of a working world. How to cope without the backing of teachers and parents always at the ready is unclear and insufficient. Living skills and contact with the community and its rules and expectations should be increased to ensure a more realistic attitude on the part of the student.
>
> More emphasis should be placed on educating young people how to cope with real life . . . offer programmes to help school leavers cope with being out of work - activities related to self sufficiency.

The range of comments on the subject of career advice experienced by these students reflected the differences existing between schools in this area. A number of students however were concerned with the lack of assistance given to them in choosing subjects and familiarizing them with the range of career options available to them, as illustrated by comments such as:

> More detailed and practical careers advice should be available in order to prepare and assist students in choosing subjects which will enable them to follow the career they want.
>
> School did not broaden the horizons of students practically with the range of 'careers options' open to people now and ways of achieving these.
>
> The students of my age did not receive adequate careers orientation - there was no real attempt to help the student identify him/herself in a particular career, thus many students in Year 12 had no clue as to where they were going at the end of the year.

Another student remarked:

> I was not prepared for what I would do if I didn't get into university...it wasn't until February that I discovered I wasn't a student on holiday, I was unemployed.

Another aspect of curriculum commented upon was the preparation of students for the demands of Year 12 and for the transition to tertiary education. Former students remarked on the contrasts in workload, study habits/skills, and assessment procedures at these levels. Some felt that greater independence should be encouraged in the later years of schools.

> Preparation for HSC needs to begin from Year 7, not dropped like a bomb in Years 11 and 12.
>
> School does not prepare you for the change from secondary to tertiary education: 'protected' (perhaps overly) at high school and virtually 'abandoned' at university.
>
> Teachers, and to a lesser extent parents, should prepare students by telling them HSC is just the first of many hard years of study rather than the last hurdle to a secure future.
>
> Students should be prepared for HSC as it is a big shock to go from 5 to 6. Either more exams in Form 5 and below or don't have the majority of marks depending on the final exam in HSC.
>
> I found there was quite a long adjustment to make from high school to college. High school did not prepare me for my first tertiary year as I found I was too dependent on being told what to do.
>
> As a method of preparing students for tertiary studies, I feel HSC is no longer viable. The general method of 'spoonfeeding' students with answers rather than skills becomes obvious at tertiary level.

Year 12

The experience of Year 12 generated a variety of comment from former students, accounting for 25 per cent of the total statements. Most attention was given to the prevailing method of assessment used in the HSC particularly the weight of final examinations. As stated by one student:

> The present structure of the HSC system works against those students (of which there are many) who are not capable of performing well under exam conditions.
> A whole years work is tested in a three-hour session.

Other comments reflected upon the stressful nature of the HSC year while other past students expressed dissatisfaction with the academic emphasis of HSC (Group 1) subjects. However, from a social perspective, a number of students commented upon the friendships and relationships developed during Year 12 as well as their own increased self-awareness and maturity.

> I think HSC was one of the best years of my life on the personal relationship side. I found that I got to know the teachers and students much better than I had ever known them right through high school.
>
> One aspect of HSC was that it forced me to grow up, for which I am grateful.

Comparisons were also drawn between the traditional HSC (Group 1) course and alternative Year 12 courses of study, primarily the STC course and the Tertiary

Orientation Program (TOP). STC was considered 'a very good alternative for students who wish to take up employment after school' while another student remarked that 'in the STC course you learn more about life and the community and how to get along with people'. One of the features which received favourable comment was the fact that assessment methods took into account the whole year's work. Other comments concerned the more adult learning environment which, combined with descriptive assessment and student participation in curriculum, was seen to create greater interest and motivation as well as self-reliance among those doing the course.

The contrast between HSC and TOP was summed up by one student who said:

> I found the pressures of HSC incredible. I am now doing TOP and have found it such a change. We are doing exactly the same work as HSC but there is no pressure . . . The environment is more relaxed and the teachers aren't pushing and pushing at you to do your work.

Affective Comments

As would be expected in a cross-section of schools, the range of opinion relating to students' enjoyment of school varied considerably; 13 per cent of all statements concentrated on positive aspects of the school experience while 6 per cent made negative statements about school. The former students who reported satisfaction with school considered that school had been: 'helpful and worthwhile after all', 'a great experience for me', 'enjoyment and a learning experience - more than just academically', 'really some of my best years: now that I have left and am nursing I only realize just how good school life was...I had a lot of friends and a lot of good teachers', and for one former student who returned to school after working for 12 months it was 'a most successful, enjoyable and beneficial experience that opened my options immensely'.

For those respondents who were dissatisfied with school, criticism was directed at such areas as teacher-student relationships; subject choice and relevance, particularly when not pursuing tertiary study; and scope for individuality within the school environment. For many, school had been merely 'a means of filling in time' while for others 'it was a waste of time'.

Teaching

Once again, opinion differed with regard to the quality of teaching received, the type of teacher-student relationships that existed in the school, and the attention given by teachers to students of varying abilities. Of all the comments made, 5 per cent supported a view of teacher-student relationships as fair, informative, helpful: a source of encouragement for the student. On the other hand, 3 per cent commented that teacher-student relationships were apathetic, discriminatory, or unsupportive. Some concern was expressed by a number of former students about the preference, in terms of

help given, shown by various teachers for the 'brighter' members of a class, which was seen to occur at the expense of the average student and, where special remedial programs or ancillary staff were not available, the weaker students. One respondent said that 'teachers should notice all students'. Others felt that 'teacher-student relationships within schools are very poor as many teachers cannot find the time to explain things or get to know the students' and 'little concern for the students as individuals is shown in many instances'.

Opportunities

In this category, former students referred to both benefits and drawbacks associated with undertaking post-compulsory education. Four general themes of comment were noted. Further education was seen to provide the means to either a course/career of the student's choice, or a job in an area of his/her choice. These themes contrasted with the remaining two which concerned the perception of Years 11 and 12 as a handicap when competing in the job market, and the view that students were ill-equipped for employment after Year 12.

Comments held by this group of former students reflect the mixed feelings about the opportunities arising from staying on at school, given the current employment climate:

> After leaving school you realize how important good academic results are - not only for the sake of just being good, but for getting into what you really want to do, without any difficulty. If you are unsure about what you want to do, good results give you the right to pick and choose - poor results limit you a great deal - you are virtually forced into something you may not want to do.
>
> I realize now that doing my HSC was the right thing to do. Even though I don't like my present job I know I have the option of going to a tertiary institution whenever I leave.
>
> A good secondary education is vital for people to get a good job or further their education. Without it . . . chances are severely limited.
>
> I think it would be much easier to get a job if you don't have HSC. Lack of experience and age go against you when competing for a job after HSC.
>
> When I left school six months ago, I had no experience for a person of 18 years and this has made it impossible to get a job so far.
>
> Although I enjoy the work I am doing, it was difficult to adjust as my 13 years at school gave me no preparation or insight into today's workforce or what to expect.
>
> I have been unemployed since finishing Year 12 . . . I've got no experience in anything, I'm older and it's harder for me to get a good job.

Other Comments

A number of individual comments made about other areas not mentioned previously constitute this category. Students remarked on matters such as the status of mature-age students, discipline, financial assistance to students and schools, and public versus private systems of education.

Table 7.11 Occupational and Educational Status of Former Students (percentages recorded in each cell)

Occupational status	Educational status					
	March 1983			June 1983		
	Full-time student	Part-time student	No study	Full-time student	Part-time student	No study
Not in labour force	45	3	n.a.	42	2	n.a.
Full-time work	0	2	18	0	3	24
Part-time work	9	2	8	9	2	7
Home duties	n.a.	n.a.	1	n.a.	n.a.	n.a.
Unemployed	n.a.	n.a.	12	n.a.	n.a.	10
Number of valid cases	479			480		

Note: n.a. = not applicable.

In Summary

From the comments made by this group of former students, two main concerns were apparent. The first was a concern that the curriculum should be responsive to changes in the workforce and the employment market. In part, this was seen to involve the provision of courses which were relevant to those proceeding to further study as well as to those seeking employment, and which would more adequately equip them for 'life after school'. The second was focused on the structure of the HSC and, in particular, the methods which were used for assessment. Apparently this concern was not simply something which was expressed by current students, but it remained with former students a year after they had completed Year 12.

Occupational and Educational Destinations of Former Students

From the questionnaire to former students, information about occupational and educational status for each month from January to June 1983 was obtained. This section makes use of those data for the period March to June, when post-secondary institutions had resumed. Table 7.11 contains information about the activities of former students from Year 12 for March and June.

In March some 54 per cent of the former Year 12 group were full-time students. Of these, 9 per cent combined full-time study with part-time work. This overall figure seemed broadly consistent with the estimates made from studies by Jones (1983). It serves as a reminder that a significant number of a Year 12 cohort did not proceed to further study. Some 21 per cent out of the group were engaged in full-time work of

which 2 per cent combined full-time work with part-time study. Only 2 per cent combined part-time work with part-time study. Hence, in March 1983, about three-quarters of the former students from Year 12 appeared to be fully engaged in work or study or a combination of these two activities.

The remaining one-quarter of former students were either unemployed or under-employed. Between 12 and 13 per cent (one in eight) indicated that they were unemployed, with a further 11 per cent suggesting that they were involved only in part-time work or part-time study. A comparison of the data for June with those for March suggested that, over the four months, a few students had withdrawn from studies (from 54 to 51 per cent), and some unemployed students had found work (unemployment dropped from 12 to 10 per cent).

Table 7.12 provides an indication of the amount of stability and change in the occupational and educational status of this group of young people over a four-month period in the first half of the year after completing high school. Nearly 83 per cent of the valid responses indicated the same activity over the four-month period: 51 per cent had been full-time students for four months, 18 per cent had been in full-time work for four months, and only 1 per cent had combined part-time work and part-time study for four months. Some 6 per cent had been unemployed for four months, and 5 per cent had been engaged either in only part-time work or in part-time study for that period. Fewer than 1 per cent had been occupied with home duties for the whole four months.

The remaining 17 per cent of the respondents appeared to have had variations in their status over the four-month period. Most commonly this appeared to involve between one and three months of work (11 per cent), between one and three months of unemployment (11 per cent), and one or two months of only part-time work (6 per cent).

Any examination of differences among these former students in terms of educational and occupational status was complicated by the nature of the sample. Of the fifteen schools involved, only four had identifiable alternative programs in 1982 and one of those had only an alternative program with no regular HSC class. Moreover the schools with both types of courses were located in areas of relatively high youth unemployment. Under these circumstances, comparisons of the destinations of former students based on all fifteen schools would probably be misleading. Consequently results for both the three schools with two types of program and for all fifteen schools have been presented. In examining the data, inferences about non-school factors were mainly based on the larger sample and inferences about school factors (type of course) were mainly based on the smaller sample. In both cases, readers should treat the results as indicating issues worth investigating further rather than as definitive. The nature of the sample is such as to prevent certainty.

In studying the destinations of former students, it was initially suggested that occupational and educational status would be related to home background (socioeconomic

Table 7.12 Duration of Occupational and Educational Experience of Former Year 12 Students: March to June 1983

Activity	No. of respondents[a] involved at some time	% of respondents[a] involved	Duration of activity in months			
			1	2	3	4
Full-time work	140	(29%)	20	18	17	85
Full-time study	262	(55%)	3	6	8	245
Part-time work/Part time study	12	(3%)	4	1	1	6
Part-time work only	50	(10%)	15	12	4	18
Part-time study only	16	(3%)	1	4	2	8
Home duties	6	(1%)	1	1	1	3
Unemployed	84	(18%)	19	19	15	30

a Adds to more than sample because over 4 months any respondent could have been engaged in more than one activity even though only one category applied for any given month.

Table 7.13 Correlation Coefficients between Variables Related to Occupational and Educational Status[a]

	Unemp.	Work	Study	Sex	Non-Eng.	SES	Abil.	Course
Unemployed		-22	-52					19
F.T. work	-20		-42					
F.T. study	-42	-55					15	-24
Sex		-09				17		
Non-Eng.			09	-10		-26		
SES				08				
Perceived abil.		-10	20			12		-19
Type of course	17		-13			-09	-19	

Note: Decimal points have been omitted and only coefficients significant at the 5 per cent level have been shown.

a Coefficients in the upper right-hand quadrant refer to the three schools (N= 127).
Coefficients in the lower left-hand quadrant refer to the fifteen schools (N= 473).

status and ethnicity), sex, and perceived ability. In addition it was decided to look at relations with type of course, while recognizing that entrants to different types of course would have differed in ways which had not been measured. The destinations which were considered were full-time student (54 per cent of all respondents), full-time work (21 per cent of all respondents), and not working (13 per cent of all respondents).

As a first indication of the association between these factors and the destinations of former students, the raw correlation coefficients have been shown in Table 7.13. Those data suggested that type of course was associated with unemployment and that type of course was negatively associated with being a full-time student. However, being a full-time student was also positively associated with perceived ability which was in turn negatively associated with the type of course undertaken. In addition there were other associations which seemed likely to make the simple measures of association misleading. For example, full-time work was negatively associated with sex and perceived ability, full-time study was positively associated with a non-English-speaking background, ethnic background was associated with socioeconomic status, and socioeconomic status was negatively associated with being in an alternative course. To examine these factors in more detail, an analysis which allowed interpretations of the 'other things equal' type was needed.

The analysis used was a regression analysis based on the path model shown in Figure 7.4. According to that approach, occupational and educational status was envisaged as influenced by perceived ability and type of course as well as background characteristics such as sex, socioeconomic status, and ethnicity. The analysis was conducted both over the three schools which offered both types of course and over all fifteen schools. Results have been shown in Tables 7.14 and 7.15 respectively.

Sex	Perceived ability	Full-time study
Non-English background	Type of course	Full-time work
Socioeconomic status		Unemployed

Figure 7.4 Model for Examining Destinations of Former Students

Those data suggest that, other things equal, proceeding to full-time study at post-secondary institutions was more common for students who perceived their ability to be higher, who were of a non-English-speaking background, and who studied a Group 1 course rather than an alternative program. None of these results were surprising. In those results, no causation has been attributed. The result for type of course would most likely be the result of the pattern of student aptitudes and interests among those entering the courses rather than the course itself. The alternative courses were intended to provide for a wider range of student interests than the Group 1 programs. In fact about 39 per cent of the students from alternative programs in 1982 were full-time students (mainly post-secondary) in 1983. Even though one cannot be sure, it seems likely that most of these would probably not have proceeded to full-time study in the absence of such a program.

Entering full-time work was not associated with any of the student background variables though there was a slight tendency (non-significant) among the three schools for more of those who had been in alternative programs to enter the workforce than those who had undertaken Group 1 subjects. Similarly there appeared to be a larger percentage (the difference was just outside the level for significance) of those from alternative programs than Group 1 programs who were unemployed. Even though the

Table 7.14 Regression of Former Student Destinations on Student and School Characteristics in Three Schools[a]

	Dependent variables				
Independent variables	Type of course	Perceived ability	Full-time study	Full-time work	Unemployed
Sex	-01(-01)	11(17)	-09(-10)	08(06)	00(00)
SES	-09(-03)	05(02)	08(02)	-05(-01)	-03(-01)
Non-Eng.	09(08)	-03(-05)	01(01)	01(01)	04(03)
Type of course			-21(-22)	10(07)	18(15)
Perceived ability			11(07)	-02(-01)	00(00)
Multiple correlation			28	15	19

Note: Standardized coefficients have been shown with metric coefficients in brackets. Coefficients significant at the 5 per cent level have been underlined.

a N = 127.

Table 7.15 Regression of Former Student Destinations on Student and School Characteristics in Fifteen Schools[a]

Independent variables	Dependent variables				
	Type of course	Perceived ability	Full-time study	Full-time work	Unemployed
Sex	03(02)	06(10)	-05(-06)	-09(-08)	05(04)
SES	-18(-04)	12(02)	07(02)	-03(-01)	-03(-01)
Non-Eng.	-03(-02)	01(01)	12(13)	-08(-07)	-01(-01)
Type of course			-10(-14)	01(01)	16(14)
Perceived ability			19(12)	-09(-05)	-04(-02)
Multiple correlation	17	14	26	15	18

Note: Standardized coefficients have been shown with metric coefficients in brackets. Coefficients significant at the 5 per cent level have been underlined.

a N = 477.

difference was not significant, it amounted to 15 percentage points so it has been investigated further.

In this context also, it seemed that the difference was most likely due to differences in the intakes to the courses. From Table 7.15 it could be seen that the students enrolled in alternative courses were on average of lower socioeconomic status, and from Table 7.13 it could be seen that perceived ability was lower for students in the alternative program than for those in Group 1 programs. Since these measures were crude, they probably reflect other large differences in the nature of the intakes to the courses.

In further analysis of student destinations, there was some indication of an interaction effect on unemployment involving non-English-speaking background and type of course. For this reason, the percentage of students entering each of the three designated post-school activities has been shown in Table 7.16 broken down by both home background and type of course. Raw percentages have been shown unadjusted for differences in perceived ability or other factors.

From these data, it can be seen that some 54 per cent of respondents reported that they were engaged in full-time study during 1983. Of respondents from Group 1 programs, a higher proportion of students of non-English-speaking background than others proceeded to full-time study. Among respondents from alternative programs, the direction of that difference was reversed. This suggested that the interests and post-school intentions of students of non-English-speaking backgrounds may have been quite different for those enrolled in each type of program. The overall 39 per cent of students from alternative programs reporting that they were engaged in full-time study suggests that these programs should not be regarded as terminal or solely work oriented.

Table 7.16 Destinations of Former Year 12 Students by Type of Course and Ethnicity[a]
(column percentages are recorded)

Destination	Three school sample						Fifteen school sample						All
	Group 1			Alternative			Group 1			Alternative			
	Eng.	Non-Eng.	All	Eng.	Non-Eng.	All	Eng.	Non-Eng.	All	Eng.	Non-Eng.	All	
Full-time study	57	63	59	40	30	35	52	67	57	42	33	39	54
Full-time work	12	12	12	20	22	21	22	16	20	23	21	22	21
Unemployed	20	9	16	15	43	30	12	7	11	17	41	25	13
Number	51	52	83	20	23	43	284	113	397	52	24	76	473

[a] Columns do not add to 100 per cent because 'other' categories have been excluded.

Table 7.17 Former Students Responses to Quality of Life Measures

Activity at the time of responding	Quality of life measures		
	General	Personal	Material
Full-time study	2.80	11.62	13.20
Full-time work	2.90	12.44	14.46
Part-time work/study	2.89	12.34	13.75
Unemployed	2.34	11.59	11.789
Total mean	2.80	11.95	13.62
Standard deviation	0.69	2.23	2.55
N	471	468	453
F ratio	8.28	5.00	14.4
Probability level[a]	<.01	ns	<.001

a Assumes a design effect factor of 2.

Overall 21 per cent of the respondents reported that they were in full-time work. None of the differences between groups were significant.

Of the total sample, some 13 per cent reported that in March 1983 they were unemployed. The direction of the difference between the three-school sample and the fifteen-school sample supports the suggestion earlier that those schools with both types of program tended to be located in areas of higher unemployment than the other schools. The interaction between ethnic background and type of course was evident here. It seemed that the tendency towards higher unemployment among those who had been in alternative programs applied for respondents of non-English-speaking background but not for others. Given the nature of the sample in this investigation, it is a finding which deserves further study.

The Quality of Life Scores for Former Students

As elaborated in Chapter 2, the questions about the quality of life of former students focused on general quality of life as a whole, quality of life in a personal sense, and material quality of life.

Quality of life on these measures was associated with the respondent's current activity rather than the type of course which had been undertaken at school. As would have been expected, respondents who were unemployed scored lower on the material quality of life scale than their peers (0.7 of a standard deviation below the overall mean or 1 standard deviation below the mean for those in full-time work). Unemployed respondents also scored lower for the quality of life as a whole (0.7 of a standard deviation below the grand mean). The difference between unemployed and other respondents was rather less for the personal quality of life scales.

In terms of school experience, there was no significant difference between the scores on these scales and the type of course undertaken. There was a tendency

(non-significant) for respondents from alternative programs to record slightly higher scores for the personal quality of life but this was possibly due to that group containing fewer full-time students. There was an association between scores on the quality of life scores and respondents' retrospective views of how well school had prepared them for adult life.

In Summary

It has often been assumed that different groups of people with an interest in schooling would have different perspectives on the roles of schooling and on staying at school. The data presented in this chapter based on the sixteen schools suggest that any differences were not large. Parents, teachers and former students shared similar perspectives on the role of schooling in Years 11 and 12, and considered similar factors in relation to staying at school beyond Year 10. These results reinforce the findings of previous research studies into community expectations of education (Collins and Hughes, 1978; Campbell and Robinson, 1979; and Mason, 1979). In the earlier studies, surveys were undertaken of teacher, student, and parent opinion on the aims and roles of schools at primary and secondary levels, and a high degree of consensus was found among the three groups.

Former students generally considered themselves to be better prepared in areas of skills than in such matters as knowledge of work, self-awareness, and understanding people, and knowing about government and community. In those latter areas former students of alternative programs rated their preparation more favourably than did the former students of other programs. This pattern was consistent with the comments made by respondents about their school experience.

CHAPTER 8

STAYING AT SCHOOL: A CONCLUDING COMMENT

This study was concerned with the retention of students from Year 10 to Year 12 in the government high schools of Victoria. Its primary focus was upon understanding the differences between those schools in their ability to retain students to Year 12. In seeking an understanding of these differences, the study examined school policy in relation to the school environment and incorporated the perspectives of students, teachers, former students, and parents. The findings have been based on analyses of data for the population of Victorian government high schools, and on more detailed analyses of the sixteen schools. The more detailed analyses incorporated the complementary use of quantitative and qualitative information from those sixteen schools.

Differences between Schools

Differences between schools in retention rates were associated with both the environment in which the school was located and curriculum and organizational features of the schools. With regard to the environment, there were no surprises. Retention rates were higher in schools located in areas of higher socioeconomic status, in schools with a higher percentage of students of non-English-speaking background, and in metropolitan rather than country schools. Beyond this it was found that retention rates to Year 12 were higher in schools with alternative programs than in those with mainly Group 1 subjects. Few high schools in the State offered such programs (beyond the choice of one or two Group 2 subjects) and therefore their impact on statewide trends would have been small. However in those few schools the effect was large. The retention from Year 11 to Year 12 in schools with alternative programs was about 19 percentage points higher (i.e. about 1.1 standard deviation units) than in schools without those programs.

Even though the general increase in retentivity in Victorian high schools and elsewhere might be largely attributed to declining job opportunities for youth, it seemed that school program differences contributed to the markedly higher retention rates in some schools. It seemed unlikely that this effect was the result of differences in employment opportunities. Studies reviewed in Chapter 1 had failed to establish a strong connection between local levels of unemployment and local participation or retention rates. Among the sixteen schools studied in detail, there were schools serving areas of similar employment characteristics. Often those schools had different retention rates and those differences were associated with differences in the programs of the schools.

The Sixteen Schools

The general findings of the analyses based on all Victorian government high schools appeared to be supported by the information gathered in the sixteen schools. Six of these schools offered an alternative program to that based largely on Group 1 subjects. Four of those schools had higher than expected retention rates and the remaining two appeared to be in the process of changing. In those schools, students made positive comments about enjoyment of school, good teacher-student relations, and the interest and relevance of school work, to a greater extent than did students in other schools. Most of the schools had established effective co-ordination of the teaching program and had instituted provisions for pastoral care of students. In brief, these schools exhibited features identified by Batten (1983) as related to successful school practice, namely: continuity and co-ordination of the program, provision of alternative curricula, and matching programs to student interest and aptitudes.

Schools with higher than expected retention rates which did not offer alternative curricula had an academic orientation and very successful records in HSC examinations. These schools generally believed that the programs they offered fulfilled the expectations of the local community. Yet, in many of those schools, students from Year 10 expressed a wish for a more broadly based curriculum in the senior years.

The evidence from the sixteen schools tended to support the propositions enunciated by the Schools Commission (1980) that schools should value the whole age group thus increasing the confidence and competence of each student, and that schools should pass on cultural content in a way which engages with the learner's present experience.

Students' Perspectives

Information about staying at school was gathered from students who were in Year 10 or Year 12 during 1983 and from former students who had been in Year 12 during 1982. Year 10 students provided information from questionnaires which was complemented by information from interviews. Year 12 students provided information only by means of questionnaire but the former students added, to their questionnaire responses, extended comments on aspects of schooling.

In the introductory chapter, it was suggested that the factors influencing students to remain at school could be considered in two groups. First, it was suggested that students would remain at school if they believed there were benefits in the long run in comparison with the available alternatives. Secondly, students would remain at school if they believed school was a satisfying place in terms of their immediate experience. For brevity, the first group of factors could incorporate a view of schooling as personal investment and the second group of factors, a view of schooling as being of intrinsic worth.

Reasons given by students for completing Year 12 seemed to place greater emphasis on the personal investment value of schooling. Future career requirements loomed large in the reasons given by Year 10 students for planning to complete Year 12, by current Year 12 students for continuing to Year 12, and by former students for having completed Year 12. Students who placed great importance on this reason for continuing their education seemed to do so regardless of the type of program provided by the school. In addition, being able to do useful subjects was important to many students as was the prospect that more schooling would help in obtaining a job. In the interviews, Year 10 students suggested that a useful subject was one which related to a career path or job. Students who placed importance on this aspect of personal investment in schooling may have been influenced by the type of curriculum available.

Enjoyment of school and interest in school work were middle-ranked reasons for remaining at school. Even though these intrinsic reasons for completing school were accorded less importance than personal investment reasons, they were of moderate importance for many students. This rating was consistent across students in Year 10 and Year 12 and former students.

Trends in Year 12 enrolments have shown a rapid growth in Group 2 subjects and Group 2 courses. The responses from current Year 12 students rated the alternative courses favourably with respect to a sense of achievement, a sense that school learning was relevant, absence of negative feelings, and a sense of status in school. Former students replied favourably to questions about how well these courses prepared them for the first year out of school especially with regard to the broader roles of schooling. There appeared to be two aspects of the courses which might explain this pattern of results. One was the vocational emphasis both in the aspect directly related to work and in the more general grounding of the curriculum in the experience of students; the other was in the teaching strategies which emphasized the engagement of students in the learning process.

Although our discussion has concentrated on alternative courses at the Year 12 level (in particular the STC course), there were several Year 11 alternative courses in the sixteen schools which drew favourable comment from students for similar reasons to those mentioned. The post-compulsory years of schooling appear to be a prime focus for current discussion and implementation of curricular and organizational change in Victorian secondary schools, as evidenced by:

the introduction of a Technical Year 12 course;

the expansion of the TOP courses;

the review of post-compulsory schooling initiated by the Victorian Minister of Education;

the Youth Action Project implemented by VISE in three Victorian high schools;

the recommendations for the establishment of youth complexes and community colleges that have emerged from recent research reports (Shears and Matthews, 1983; Beswick et al., 1983).

Factors Influencing the Intention to Remain at School

The study found that, in addition to the curriculum factors already discussed, the intention to remain at school to Year 12 was closely linked to student perceptions of their ability and the quality of school life. In addition to general satisfaction (interest, enjoyment) with school, a sense of achievement, a sense of relevance, and a feeling of good relations with teachers were more important aspects of the quality of school life to intended school stayers than to intended school leavers. These domains of the quality of school life reflected both the notion of personal investment and the notion of satisfaction. It was also found that both curriculum factors and the extent of co-ordination of the school program related to quality of school life.

The possible influence of perceived ability and aspects of the quality of school life on the intentions of Year 10 students to remain at school suggested that retention rates might not only be a result of what was provided in the post-compulsory years but could also be influenced by student experiences in the compulsory years of secondary school.

Individual Characteristics and an Intention to Remain at School

Throughout the study there were individual characteristics which appeared to be associated with remaining at school. In the section concerned with plans to complete Year 12, it was noted that students of non-English-speaking backgrounds were more likely to state an intention to complete Year 12 than other students. This result was consistent with other research reviewed in Chapter 1 and has usually been attributed to high educational aspirations held by the families of such students. However, in the present study, the results suggested that this pattern was more strongly evident for males than females. The result suggests that further research directed at the processes leading to such a result might be helpful.

The study found the usual association between higher socioeconomic status and planning to complete school but it was weaker than was expected.

At several points in the study, there were suggestions that school policies have a slightly stronger impact on the decisions of females to remain at school than males. On each individual variable, the differences were small but cumulatively these differences appeared worth noting. Similar results were found among former students. The favourable ratings accorded to alternative courses by former students was a feature of female respondents to a greater extent than males. Moreover females tended to give

higher ratings to the importance of Role A statements about schooling than did males. Among parents there was a difference in the same direction between mothers and fathers.

An interpretation of these observations would require more space and time than is possible here. By way of speculation, it can be noted that such observations would be consistent with the theories of Gilligan (1982). After a series of studies of the ways in which people approach moral dilemmas, and an analysis of psychological theory, Gilligan proposed that there was a tendency for men and women to differ in the basis for their decision. Men were inclined to emphasize 'individuation', in that individual actions tended to be separated from networks of relationships. Women tended to emphasize 'connectedness' through which networks of relationships assumed greater importance. No doubt other interpretations of the results could be argued.

Looking Forward

A number of issues have been raised by this study which could form the basis of a future research agenda. The issues cluster into four main areas. One area is the structure and operation of the secondary school, which would encompass such issues as the effect of curriculum developments in Years 11 and 12 on the curricular and organizational orientation of Years 7 to 10, and the effect of program co-ordination within and between schools on student retention and curriculum diversity. Another area has as its focus the various sub-groups of the senior school population, such as males and females, and students from English-speaking and non-English-speaking backgrounds. Research studies in this area could explore the differences between groups in their reaction to the school environment and aspects of the curriculum. A third area covers alternative curriculum in Years 11 and 12: the effect of alternative programs on students' self-perception and academic aspirations, and on employment prospects; the nature and importance of staff roles in developing and implementing alternative curricula; and the aims, structures, and outcomes of alternative Year 12 courses such as TOP, STC, and Technical Year 12. The fourth area follows on from the third and concerns the enduring effects of the various types of curriculum offered at the senior level on the attitudes and experiences of students in their early post-school years.

The results of the study suggested among other things that the increased retention rates noticed in 1983 would continue and perhaps increase further in subsequent years. If this eventuates, the most critical question relates to the ways in which the education system should respond. Through this study, a number of ways in which schools have responded have been indicated and the views of students have been outlined. It is hoped that those observations will help shape the ways in which the educational community thinks about the role of schooling beyond Year 10 for the remainder of the eighties.

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