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ABSTRACT

While some comfort can be taken from the figures which indicate a growing retention rate, there is considerable concern over the very large percentage of students who do not complete full schooling. In the first experiment in order to address the question of the differential effects of variables on school retention across a range of cultural groups, Year 10 students in 12 New South Wales high schools with low retention rates were examined. In particular, a comparison was drawn among Anglo (N=658), Migrant (N=283), and Aboriginal (N=85) students, with male/female comparisons also being drawn. Variables evaluated included attendance; academic achievement in English; academic achievement in Math; race; sex; and socioeconomic status as determined by fathers' occupational status. Analysis of the full group indicated that the best set of predictor variables were academic achievement in math, academic achievement in English, attendance record, and race. With regard to separate analyses by race academic achievement emerged as a critical feature of the analyses. Relatively more male Migrant students continued with schooling than females. In the second experiment the data were reanalysed, excluding data from students whose fathers' status was pensioner or unemployed and whose mothers' status was pensioner, unemployed, or housewife. From the results it appeared that parental occupational status was related to student's decision-making to continue with school but the effects varied for males and females across the cultural groups studied. (ABL)

SOME DEMOGRAPHIC AND SCHOLASTIC VARIABLES INFLUENCING SCHOOL RETENTION: A CROSS-CULTURAL COMPARISON

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School retention has been steadily improving over the last decade due to initiatives at both the Commonwealth and State levels. Apparent retention rates have risen from approximately 35% to 58% although this varies considerably for each stat, regions within states and groups within regions (Report, Oct, 1989) For example, Aboriginal students' retention rates in NSW from 1979 to 1988 rose from approximately 8.5% to 29%, still far short of national norms, while non-government schools appear tto retain children better than government schools (Report, Oct, 1989). As the Report of the Committee of Review of New South Wales Schools (Report, Sept, 1989) states:

> In Australia increasing the overall level of participation of students within the school system, and increasing the participation of certain sub-groups, including girls, Aborigines and students from non-English speaking backgrounds have been explicit goals of both Commonwealth and state governments in recent years.
>
> Higher participation rates are regarded as desirable in themselves for educational reasons, and as increasingly relevant economically and socially. Rapidly changing technologies and related effects on the domestic economy make early school leaving and the consequent entry to the labour market of large numbers of young, unskilled school leavers increasingly inappropriate in economic terms....
>
> A fundamental assumption underlying all policies aimed at increasing retention is that more education is intrinsically valuable. Policies aimed at increasing articipation also recognise that all young Australians have an equal right to be included in the education and training provided for their age group, regardless of gender, race, class or location. (p179)

Retention among minority and disadvantaged groups

While some comfort can be taken from the figures which indicate a growing retention rate there is considerable concern over the very large percentage of students who do not complete full schooling, and in particular, there is concern that these students are disproportionately located among minority and disadvantaged groups, thus compounding the difficulties of these children taking their places in mainstream society. As the Report (1989, p.8), states " Of more concern, however, are the figures that show that a young person's chance of a full secondary education can be critically affected by: their socio-economic background; whether they attend a government or a private school: whether they live in a city of in the country: their ethnic background; and whether or not they are Aboriginal." This concern is not restricted to Australia. A number of international studies and reports deal with the issue of school retention, in particular, the antecedents of dropping out, and the consequences for the society and individuals (Rumberger, 1897; Finn, 1989; Steinberg et al, 1984; McDill, 1985; Frymier, 1989). To focus attention

on this issue a special Standing Committee on Employment, Education and Training of the Australian House of Representatives was commissioned to inquire in to Year 12 retention rates, and has established a national goal of achieving a Year 12 retention rate of 65% by 1992. However, the report states that unless the project addresses the issue of improving the participation of educationally disadvantaged groups the achievement of this national goal will be a hollow victory (p.13).

Correlates and causes of dropping out

Much research has sought to establish the key demographic and scholastic variables that are related to school completion and further education for individual students. It is well known that drop out rates vary widely among social groups and school systems. Research generally indicates that drop out rates are higher for members of racial, ethnic and language minorites, for men, and for persons from lower socioeconomic status (Rumberger,1987; Finn, 1989; Sternberg et al, 1984). Rumberger describes a wide range of factors that are associated with dropping out viz, demographic, family-related, peer, school-related, economic, and individual (such as attendance). A number of studies have tried to predict dropping out from academic achievement variables, socioeconomic status variables and familial variables. Lloyd (1978) reports that it is possible to discriminate potential high school dropouts from graduates with 75% accuracy as early as the third grade using a combination of these variables: father's education, father's occupation, mother's education, parental marital status, third grade reading and mathematics achievement test scores, third grade point average, third grade I. Q., and prior grade retention. Steinberg et al (1984, p118) state

> "... virtually every study that has included social class as an independent variable has indicated that youngsters from the lower socioeconomic strata are more likely to drop-out of school than their more economically privileged peers ... (and that) (E)vidence concerning the relationship between academic achievement and performance on intellectual tests and premature school leaving is quite consistent. In general, prior to dropping out, at both the elementary and secondary school levels, students who ultimately leave early perform poorly on tests of intelligence, reading, vocabulary and mathematics."

But Steinberg (1984) comments that a striking absence in studies of the relationship among academic capability, socioeconomic status and dropping out is information on how predictive equations vary from one ethnic group or racial group to the next. "... we do not know whether predictive equations derived from studies of one population are generalizable to other groups." (p.119). Do these variables have the same impact for groups from different cultural

backgrounds?

The Present Investigation

As part of the data gathering exercise for a larger project studying key motivational variables influencing school retention for Aboriginal, Migrant and Anglo children in twelve NSW high schools with low retention rates (McInerney, 1986,1988) a number of demographic details were collected on the subjects, as well as information on the students' school attendance, academic performance in Maths and English and intention of completing the Higher School Certificate (Year 12) or of leaving school as soon as possible. The following retention rate statistics (based upon the return rate of Year 10 students after the School Certificate) were drawn from the sample schools:

1. Across the twelve schools the female retention rate was slightly better than the male retention rate with approximately 56% of females continuing with school while 52% of males continue;
2. Female Anglo students at the selected schools were more likely to continue beyond Year 10 than male Anglo students, with 56% returning while 50% of the males returned;
3. Female students of migrant parents were less likely than their male counterparts to continue with school with 54% continuing while 60% of the male group continued;
4. Female Aboriginal students were more li ly to continue with school than their male counterparts with 57% returning to school, while only 40% of the male students returned to school.

Crosstabulations by race and grade on the expressed intention to complete Year 12 indicated a diminution in intention to complete Year 12 from Year 7 to Year 10 for all groups, with Aboriginal students having the lowest percentage of intention to complete Year 12 in every grade. The Migrant group expressed the strongest intention to complete Year 12 across the grades (excepting Year 11) for both males and females. With regard to leaving school as soon as possible, a higher percentage of Aboriginal students indicated this intention at each grade level, e.g., in Year 9 22.5 % of the Aboriginal male group agreed with the proposition in contrast to 8.7% and 11.3% of the Migrant and Anglo groups respectively. Table 1 presents the crosstabulations of intention to complete Year 12 by grade level, race and sex. From this Table it appears that the Migrant group is most positively oriented to completing school (both male and female), while the Aboriginal group is most negatively disposed.

Insert Table 1 about here

In order to address the question of the differential effects of variables on school retention across a range of cultural groups this paper reports on an investigation with Year 10 students in N. S. W. with variables predicted to be related to intention to continue with school beyond Year 10 and able to discriminate between the school leavers and non-leavers. In particular, a comparison is drawn between Anglo, Migrant and Aboriginal students, with male/female comparisons also being drawn.

Experiment 1

Method

Sample

Twelve N. S. W. high schools, broadly representative of schools with low retention rates, were selected for the study. The school sample consisted of seven rural schools and five urban schools. The subjects for this study comprised the entire cohort of Year Ten students in the twelve sample schools (except for two schools where, owing to the very large size of the classes, it was necessary to draw a random sample of approximately half the students). There were 85 Aboriginal students (m=42, f=43), 283 Migrant students (students who had one or more parent born overseas)(m=154, f=129), and 658 Anglo students (m=313, f=345). All students were required to attend the session, although on the day there were the expected absences due to sickness and other reasons. Only a small number of the total available sample failed to complete the Questionnaire.

Procedure and analyses

Details concerning the procedure of the research are fully described elsewhere (McInerney, 1986, 1988). The data were collected in the third term of the school year, and the researcher contacted the schools in the first term of the following year to obtain information on those students who had returned to school for Year 11 and those who had left after the completion of Year 10. Schools supplied details on the students' academic achievement in English and Maths during Year 10 as assessed by the School's Certificate Reference Test in English and the School's Certificate Reference Test in Maths. Schools also supplied details on the students' absenteeism in the term prior to the conduct of the survey. Students supplied information regarding their race, sex, SES as measured by father's occupation and mother's occupation, and educational levels of their parents.

In order to examine the characteristics of those students who continued with school after Year Ten, a series of discriminant analyses using stepwise variable selection and minimization of Wilk's Lambda were conducted with a range of background variables. The criterion variable for the discriminant analyses was group membership (at school, not at school). The predictor variables were the following:

1. Attendance Record - based on number of days missed from school during the term preceding the survey (Term 2). This information was obtained from class rolls.
2. Academic achievement in English - based on the student's English rank in the School's Certificate Reference Test in English.
3. Academic achievement in Maths - based on the student's Maths rank in the School's Certificate Reference Test in Maths.
4. Race - Aboriginal, Migrant, Anglo.
5. Sex - male or female.
6. SES - based on occupation of father.

It was also hoped to utilize father's and mother's levels of schooling as variables but approximately only fifty per cent of the sample were able to indicate which level of schooling their parents had reached. Consequently this was dropped as a variable in the analyses.

Results

Analysis with the full group (n=1027) indicated that the best set of predictor variables for the full group was: academic achievement in Maths, academic achievement in English, attendance record, and race. Using this combination of variables 68% of the sample was correctly classified as either being at school or having left school. This result is significant at the .001 level. Academic achievement in Maths and English were the two strongest discriminant variables distinguishing the school leaver and non leaver. Sex and father's occupational status were not significant discriminators in this analysis. Further analyses of the importance of father's occupational status to decision-making regarding continuing with school is considered in Experiment 2.

To further test the ability of these background variables to correctly classify membership in the criterion groups, a series of analyses was performed for each of the subgroups, viz, Aboriginal, Migrant and Anglo. Analysis with the Aboriginal group (n=85) failed to find a statistically significant pattern to the data, although Maths and English performance and sex appeared to be key variables. The inability of the variables to discriminate between the groups at a statistically significant level may be, in part, attributable to the reduced sample size for the Aboriginal group in this analysis (n=68).

Analysis with the Migrant group (n=283) indicated that the best set of predictor variables for the full group was (in this order): academic achievement in English, academic achievement in Maths, attendance record, and sex. Father's occupational status was not a discriminating variable. Using this combination of variables 67% of the sample was correctly classified as either being at school or having left school. This result is significant at the .001 level.

Analysis with the Anglo group (n=658) indicated that the best set of predictor variables for the group was (in this order): academic achievement in Maths, academic achievement in English and attendance record. Sex and father's occupational status were not discriminant variables. Using this combination of variables 70% of the sample was correctly classified as either being at school or having left school . This result is significant at the .001 level.

Table 2 presents a comparison of the discriminant variables for the three groups.

Insert Table 2 about here

Discussion

The discriminant analysis with the full sample indicated clearly that the major discriminant variables discriminating between the two groups of students (at school/not at school) were academic achievement in Maths and academic achievement in English, with Maths being the stronger. Apart from these two, attendance at school was an important variable, that is, those students with a good attendance record were more likely to be in the group who continued with school. As expected, race was also a discriminant variable, with the greater likelihood that an Aboriginal child would be in the group that did not continue with school. Neither sex nor father's occupational status was a discriminating variable for the full group in these analyses.

Academic achievement

The following crosstabulations (tables 3 and 4) indicate the relationship between academic achievement and race, and in particular the very poor level of performance of the Aboriginal students in Maths and English in comparison with the two non-Aboriginal groups. While 29.8% and 31.2% of Migrant and Anglo males respectively scored an advanced level in mathematics, only 5.4% of the Aboriginal males scored an advanced. The figures for the female students are respectively 25.4%, 26.8% and 5.4%. Performance in English is equally as bleak for the

Aboriginal students with only 8.1% of the female students scoring a rank 1 or 2 in comparison to 29% for the Migrant group and 36.3% for the Anglo students (7.9%, 12.9% and 16.3% respectively for the male students).

Insert Tables 3 and 4 about here

With regard to the separate analyses by race academic achievement emerged as a critical feature of the analyses. It would appear that those who have not performed well academically generally choose, or are advised not to continue with school. This finding is consistent with other studies which show a relationship between academic achievement and premature school leaving. Steinberg et al (1984, p.119)say that in general, prior to dropping out, at both the elementary and secondary school levels, students who ultimately leave school early perform poorly on tests of intelligence, reading vocabulary and mathematics. Specific attention needs to be given to the reasons for the poor academic performance of students in schools with low retention rates. Certainly, if the final years of schooling continue to be perceived as prerequisite for further academic work at Universities and Colleges, remedial/enrichment programs in maths and English must be instigated for those students with potential, who would otherwise 'drop-out'.

It is important to note that for the Migrant group, for a large number of whom English is a second language, English achievement was the single most important variable distinguishing between those students who leave school and those who continue. This confirms the results of a number of stuies which conclude that students who enter school without proficiency in English, and whose proficiency does not improve over time, are exceedingly likely to fail in school (Steinberg et al, 1984). In contrast, Maths performance was relatively more important for the other groups. This result is thrown into stronger relief when it is considered that the Migrant group included English speaking children of Migrants as well as children from non-English speaking backgrounds (NESB). Had the former been removed from the sample the contrast would have been more marked. Such evidence strongly suggests that effective language programs for non-English speakers are critical for the success of those students in school settings, and in maintaining them in the school setting. Furthermore attention needs to be directed towards the families of non English speaking background children to ensure that there is the optimal support

for the develcpment of English within the home. English usage in the family is clearly related to language proficience. Anderson and Johnson (1971) found that English usage in the family is a significant predictor of high school English grades.

Sex as a discriminant variable

The second major finding was the differential relationship of sex and retention across the three groups. Sex was a discriminating variable for the Migrant group which indicates that relatively more male Migrant students continued with schooling than females. This evidence supports a commonly held belief that for many Migrant groups further education for females is considered unnecessary (or less important than for males) as their major role is perceived to be home-makers. This contention would need to be examined carefully by further research. It would appear however, that in the case of students from migrant backgrounds, emphasis needs to be placed on sensitively handled "non-sexist" programs, with an emphasis on parental education.

Sex was also a discriminating variable for the Aboriginal students indicating that proportionally more female Aboriginal students continued with schooling than Aboriginal male students. This contrasts interestingly with the Migrant situation and clearly presents an issue for further research.

School attendance as a discriminant variable

A third major finding was the relationship of school attendance and retention. School attendance is usually taken as an indication of a child's motivation and application to the task of learning. Poor attendance at school weakens a student's identification with the purpose of schooling, lessens the resolve of teachers to support such students, prevents students mastering basic skills necessary for achievement and success at school and predisposes the student to being placed in low stream classes. That it was a discriminating variable clearly distinguishing the school "leavers" from the school "stayers" for the two non-Aboriginal groups comes as no surprise and confirms the results of many studies showing the link between absenteeism and drop out behaviour. Attendance level however did not emerge as a discriminating variable for the Aboriginal group. The attendance record of Aboriginal students was very poor with 65.4% of the male Aboriginal children in the sample missing more than 5 days in the preceding term compared with 36.8% and 42.1% of the Migrant and Anglo students respectively. (The figures for the female students are 69.7%, 51.7% and 48.9% respectively). Consequently, while poor attendance would affect performance at school in academic subjects, it does not appear that good

attendance characterizes the small group of Aboriginal children continuing with school. The reasons for and the effects of poor attendance of Aboriginal children at school need careful study. In any event, if school retention is to be improved among particular groups, attendance at school must be effectively monitored. Perhaps inducements (e.g., financial assistance schemes) should be tied to effective attendance.

Father's occupational status as a discriminant variable

Finally, the results indicated that father's occupational status (often used as a proxy for SES and usually associated in a direct fashion with retention, i.e., the higher the level of SES the more likely children continue with school) was not a discriminating variable. That father's occupational status did not emerge as a discriminating variable seems to indicate that students with parents from all occupational groups at the selected schools are equally likely/unlikely to continue with schooling given other conditions. However, it should be noted that as these schools were generally not located in high SES regions and consequently, the range of SES represented may be narrower than if a wider range of schools had been chosen. For example, of the total group, only 16% of the fathers had positions above the skilled occupational level while 22.5% occupied skilled positions and the rest were distributed throughout the other occupational classifications. There were also a large number of cases classified as pensioners and unemployed which might have influenced the results. The analyses tend to suggest that at the selected schools father's occupational status in itself is not a determinant of whether particular students continue with school. However, at the selected schools, retention levels were well below the norm for the State as a whole. Analyses with a more restricted set of occupations (reported later) illustrate that this variable can in fact discriminate school leavers and non-leavers at these schools, and is the subject of experiment 2.

Experiment 2

Method

Subjects

Subjects were the same as described in Experiment 1.

Procedure and analyses

It was of note that father's occupational status did not emerge as a discriminant variable in the earlier analyses. Although reasons were suggested for this finding, it was decided to reanalyse the data from those students whose father's occupational status was restricted to

professional, clerical-sales, skilled, semi-skilled and unskilled categories. Excluded from the sample were subjects whose father's occupational status was classified as pensioner or unemployed. It was decided to exclude these categories as they could mask the level of SES of these respondents. Furthermore, it was decided to also include mother's occupational status in analyses which was also classified as professional, clerical-sales, skilled, semi-skilled and unskilled. Again, categories pensioner, unemployed and housewife were excluded for this group. This procedure reduced the data pool considerably but enabled a close examination of the effect of parental occupational status and the relative impact of father and mother occupational status. Separate analyses were also performed by sex to throw into relief any variables which had a differential effect by sex.

Analyses using discriminant analysis with stepwise variable selection and minimization of W" - Lambda were performed for the full group, male and female subjects, and across the three ethnic classifications. School attendance and academic achievement (Maths and English) were also included as variables in the analyses.

Results

Table 5 presents the findings of this study

Insert Table 5 about here

It appears from the results that the demographic and scholastic variables that discriminate between the school leaver and non-leaver are the same for males and females (full group), the most important variables being academic achievement (English and Maths) while school attendance is also a useful predictor. Father's ocupational status is an important predictor for children of both sexes continuing with school beyond Year 10. However, of note for the female group mother's occupational status was also a significant predictor, but not for the male group.

The Aboriginal group was too small to allow for effective statistical analysis, however, the results suggest that academic achievement in English and academic achievement in maths are the best predictors for the small number of Aboriginal male students who continued beyond Year 10, while for the female group, academic achievement in maths is an important variable, but mother's occupational status is a more important discriminant variable for this group.

For the male migrant group the most important discriminant variable is father's occupational status, followed by academic achievement in English and school attendance. Maths

achievement and mother's occupation did not discriminate. In contrast, for the female migrant group academic achievement in mathematics is the strongest discriminant variable, while father's occupational status is also important. English achievement, mother's occupation and school attendance did not discriminate for the females.

Finally, for the male Anglo group academic achievement in English and academic achievement in maths were the strongest predictors, followed by mother's occupational status and school attendance. The same set of predictors were also important for the female group except that father's occupational level was also important.

Discussion

Aspirations and modelling

Father's occupational status is considered to be an important variable influential in determining whether children will continue with school. It is generally believed that the higher the SES (based on father's occupational status) the more likely children will go on with school, and that this effect is uniform across ethnic groups. It appears that parental occupational status (within the ranges considered) is related to a student's decision-making to continue with school but that the effects vary for males and females and across the cultural groups surveyed. A close analysis of the interaction between mother's occupational status, father's occupational status and children continuing with school suggests that any effect parental occupational level may have is more than simply the influence of income and resources. Two effects appear to be suggested when analysing the impact of father and mother occupational status on children's decision-making to continue with school. These effects may be classified as the "aspirational" effect and the "modelling" effect. The "aspirational" effect refers to whether parents hold views that their children can achieve well at school (which is a worthwhile goal) and that these views are effectively communicated to their children. The "modelling" effect refers to the influence a role model, in this case the same sex parent, has on the developing ambitions of children in schooling.

Father's occupational status

We see the impact of both of these effects and the various interactions that can occur in the results. For example, father's occupational status is an important variable for the Migrant male group (aspirational and modelling), Migrant female group (aspirational) and the Anglo female group (aspirational). However father's occupational status is not a discriminant variable for

Aboriginal males or females (reflecting the lack of modelling, and low aspirations held by adult Male Aboriginal fathers for their children). Nor is father's occupational status a discriminant variable for the Anglo males in the survey. These findings could indicate that Anglo fathers spend little time as effective models of achievement for their sons, and/or do not effectively communicate aspirations to their sons. This view is made plausible by the finding that mother's occupational status is an important discriminant variable for Anglo males continuing with school. Anglo males who have high status occupation mothers may be exposed more to the mother's influence and encouragement (the aspirational effect).

Mother's occupational status

In contrast to the negligible impact of occupational status of Aboriginal fathers on Aboriginal children's decision-making mother's occupational status is important to Aboriginal girls (illustrating both the modelling and aspirational effects). Mother's occupational status is also significant for Anglo girls. In contrast it is not a predictor for Migrant girls. Stereotypically, migrant mothers are not in high prestige occupations and the role of the female is still perceived to be as a homemaker. Consequently, migrant mothers hold few aspirations for their daughters to be any more than homemakers, as they themselves are, and in any event do not model professional ambition to their daughters. In contrast female migrant children who decide to continue with school appear highly influenced by their father's attitudes.

Clearly occupational status can not be used as a unidimensional factor with a one line effect on children's motivation to continue with school. The earlier discussion highlights some of the possible interactions.

General Discussion

Governments are concerned with elevating school retention levels generally in the community and are sensitive to the issue of improving retention rates among minorities particularly. Any strategy developed to enhance retention must have as key elements the following:

Firstly, the academic performance of "at risk" students must be enhanced through enrichment programs in Maths and English. Clearly emerging from the results are the findings that children who achieve poorly drop-out. Of particular concern is the Aboriginal group. Evidence was also given that English courses for non-English speaking background students must

prepare them for senior scholastic work. Without language expertise they are at risk.

Secondly, school attendance must be effectively monitored. Students who attend infrequently are at greater risk of dropping-out. An effective procedure for ensuring attendance, perhaps tied to grants and awards, must be implemented, particularly for groups most at risk such as the Aboriginal group, and other socio-economically depressed minorities. The community must share the burden of responsibility here. Commonly many parents "allow" their children to miss school because as parents they are ineffective models of discipline, or see no value in consistent attendance at school, or utilize the child's time for a variety of other uses (such as babysitting or housework). Schools, for their part, must make time spent at school relevant, interesting and enjoyable for children to want to attend.

Thirdly, parents must be educated to support their children at school through effective modelling and the communication of positive aspirations for the children's success. Evidence has been given that parental occupational status in and of itself does not necessarily lead children to continue with school. What is important is the messages being given to children by their parents. Why is it that father's occupational status does not appear to be related to Anglo boy's retention while mother's occupational status is? Why is it that mother's occupational status has little to do with the retention of Migrant girls and boys? Why is it that both parents' occupational status is important to Anglo girls? The answers lie, of course, in the messages being communicated through parents to children. Do Anglo fathers encourage their sons enough? Are migrant mothers effective models of what education can achieve for their daughters and do they hold aspirations for their daughters academic success and later careers? What role do Aboriginal fathers play in their children's educational development? Parental influence on children's schooling is obviously not simply a matter of dollars and cents. Parents have a key role in encouraging their children to continue with school. Where the perception of this role is lacking, or the ability to effectively implement it is lacking community education courses must be commenced. A good starting point for the development of initiatives addressing academic performance, attendance and parental education for at risk students would be in schools already typified as having poor retention figures.

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Table 1 Crosstabulations of intention to complete Year 12 by grade level, race and sex. % response
Anglo n=1137, Aboriginal n=472, Migrant n=462

		Grade % response					
Group	**Response**	**Yr7**	**Yr8**	**Yr9**	**Yr10**	**Yr11**	**Total**
Aboriginal	YES	42(51)*	36(44)	40(30)	31(33)	50(69)	
	NO	20(24)	24(17)	40(40)	51(41)	13(0)	
	NOT SURE	38(25)	40(39)	20(30)	18(23)	37(31)	
	N	60(75)	72(72)	40(46)	39(39)	16(13)	472
Migrant	YES	62(62)	54(71)	55(60)	51(53)	71(92)	
	NO	14(14)	8(6)	5(17)	34(26)	7(8)	
	NOT SURE	24(24)	38(23)	40(23)	15(21)	22(0)	
	N	37(21)	26(34)	22(30)	146(119)		14(13)
	462						
Anglo	YES	49(69)	47(63)	46(49)	39(44)	84(96)	
	NO	15(10)	18(9)	22(25)	41(34)	8(0)	
	NOT SURE	36(21)	35(28)	32(26)	20(22)	8(4)	
	N	53(84)	62(67)	63(77)	302(334)		50(45)
	1137						

*Female data are presented in brackets

TABLE 2 A comparison of the discriminant variables across three groups.

Standard canonical discriminant function coefficients

Discriminant variables	Full group	Aboriginal	Anglo	Migrant
Attendance	247	-	216	335
English	468	837	509	587
Maths	612	-1.07	559	485
Race	154	-	-	-
Sex	-	620	-	259
SES	-	-	-	-
%of group correctly classified	68*	59	70*	67*

* significance at the .001 level.

TABLE 3 Crosstabulation of Maths performance by race

	RACE					
Level*	Male			Female		
	Aboriginal	Migrant	Anglo	Aboriginal	Migrant	Anglo
A ADV	1 (2.7)**	12 (8.3)	28 (9.6)	0 (0)	9 (7.6)	17 (5.2)
B ADV	0 (0)	19 (13.2)	42 (14.4)	1 (2.7)	16 (13.6)	45 (13.7)
C ADV	1 (2.7)	12 (8.3)	21 (7.2)	1 (2.7)	5 (4.2)	26 (7.9)
A INTERM	0 (0)	13 (9.0)	15 (5.1)	0(0)	17 (14.4)	32 (9.8)
B INTERM	5(13.5)	17(11.8)	29 (9.9)	4 (10.8)	13 (11.0)	42 (12.8)
C INTERM	3 (8.1)	14 (9.7)	39 (13.4)	7(18.9)	12 (10.2)	54 (16.5)
D INTERM	4 (10.8)	6 (4.2)	14 (4.8)	2 (5.4)	10 (8.5)	25 (7.6)
A GENERAL	7 (18.9)	30 (20.8)	58 (19.9)	9 (24.3)	20 (16.9)	51 (15.5)
B GENERAL	16 (43.2)	21 (14.6)	46 (15.8)	13 (35.1)	16 (13.6)	36 (11.0)
N	37	144	292	37	118	328

* Level based on the students' Maths rank in the Schools' Certificate Reference Test in Maths
** Percentage of column total indicated in brackets.

TABLE 4 Crosstabulation of English performance by race

	RACE					
Level*	Male			Female		
	Aboriginal	Migrant	Anglo	Aboriginal	Migrant	Anglo
Rank 1	1 (2.6)**	6 (4.3)	13 (4.5)	1 (2.7)	8 (6.8)	34 (10.4)
Rank 2	2 (5.3)	12 (8.6)	34 (11.8)	2 (5.4)	26 (22.2)	85 (25.9)
Rank 3	7 (18.4)	56 (40.3)	124 (43)	16 (43.2)	52 (44.4)	141 (43.0)
Rank 4	13 (34.2)	32 (23.0)	64 (22.1)	10(27.0)	20 (17.1)	50 (15.2)
Rank 5	15(39.5)	33(23.7)	54 (18.7)	8 (21.6)	11 (9.4)	18 (5.5)
N	38	139	289	37	117	328 ***

* Level based on the students' English ranks in the Schools' Certificate Reference Test in English.

** Percentage of column total presented in brackets.

*** These N vary from maths crosstabulations owing to missing cases.

Table 5 Discriminant analysis using restricted occupational categories. (standardized canonical discriminant function coefficients presented without decimal points)

Variable	Male				Female			
	Full	Ab	Mig	Anglo	Full	Ab	Mig	Anglo
School attendance	29	-	45	26	29	-	-	35
English Scores	48	1.35	65	58	52	-	-	54
Maths Scores	42	1.68	-	35	50	1.10	72	46
Father's Occ	26	-	79	-	29	-	60	26
Mother's Occ	-	-	-	34	25	1.46	-	25
% correctly classified	72%	70%	80%	78%	68%	73%	57%	70%
Significance	.000	NS	.000	.000	.000	NS	.08	.000
number	175	9	49	117	214	13	51	150

TABLE 2 Crosstabulation of intention to complete Year 12 by occupation of father (raw score and %)

Response	Occupational level							
	Profess	Clerical	Skilled	Semiskill	Unskilled	Unemploy	Pension	Spec. Ab Pos
St. Agree	107(52)	59(45)	176(37)	72(30)	160(29)	39(40)	26(38)	3(27)
Agree	42(21)	18(14)	74(15)	41(17)	65(12)	13(13)	7(10)	2(18)
Not sure	28(14)	31(24)	115(24)	62(25)	141(26)	25(25)	18(26)	4(37)
Disagree	10(5)	8(6)	52(11)	30(13)	81(15)	9(9)	9(13)	1(9)
St.Disagree	17(8)	15(11)	63(13)	36(15)	100(18)	13(13)	9(13)	1(9)
Totals	204	131	480	241	547	99	69	11

note: percentages are presented in brackets. 341 cases were classified as NA (occupation not able to be classified) and there were 32 missing cases.

TABLE 4 Canonical discriminant functions. Full group n=918* Background variables.

Function	Eigenvalue	%var	Cum%	Can corr	After function	Wilks Lambda	Chi^2	DF	Signif
1	.20774	100	100	.41474	0	.82799	172.5	4	0

Standardized canonical discriminant function coefficients

	Function 1
Attendance	.24746
English	.46819
Race	.15419
Maths	.61193

Group Centroids

Group	Func 1
1	-.42180
2	.49144

* 109 cases were deleted from analyses as they had missing data.

TABLE 5 Classification results. Full group. Background variables.

Actual Group	No. of cases	Predicted Group Membership 1	2
Group 1 At School	521	349 67.0	172 33.0
Group 2 Left School	439	136 31.0	303 69.0
Ungrouped cases	2	1 50.0	1 50.0

Percent of grouped cases correctly classified - 67.92