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ABSTRACT

While Aboriginal children appear to be particularly disadvantaged in educational performance and outcomes, very little is known about the determinants of school motivation for this group. Commonly it is believed that Aboriginal girls perform better at school and continue longer than Aboriginal boys. This study examined the similarities and differences in Aboriginal girls and boys in the areas of school retention, performance, and intention to complete the Higher School Certificate (HSC); as well as the motivational and situational correlates of school retention and performance for Aboriginal children in mainstream school settings, and sex differences, if any, in the importance of these correlates. Subjects (N=476) Aboriginal students, including 230 males and 246 females from regional high schools representative of schools having Aboriginal students in New South Wales. Data were collected using the Inventory of School Motivation, the Facilitating Conditions Questionnaire, and a background demographic survey. Analyses indicated: (1) major predictors for male and female students were broadly the same with intrinsic motivation and goal directed motivation being the most significant; (2) for females affect to school, parental pressure to leave school, and negative peer influence were the most important predictor variables affecting the female students' intention to complete the HSC; and (3) for males positive school influence, perceived value of school, and school affect were the most important predictor variables affecting their intention to complete the HSC.
 (ABL)

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SEX DIFFERENCES IN MOTIVATION OF
ABORIGINAL STUDENTS
IN
SCHOOL SETTINGS

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1990

Abstract

Are Aboriginal girls and boys similarly influenced by motivational and situational factors to continue with or leave school? Commonly it is believed that Aboriginal girls perform better at school and continue with school longer than Aboriginal boys. This paper reports on a study which addresses the following questions:

1. What are the similarities and differences in Aboriginal girls and boys school retention, performance and intention to complete the Higher School Certificate?
2. What are the motivational and situational correlates of school retention and performance for Aboriginal children in mainstream school settings, and are there sex differences in the importance of these correlates?

Subjects for the study were 476 Aboriginal students (m=230, f=246) from twelve regional high schools representative of schools having Aboriginal students in New South Wales. Data were collected using the Inventory of School Motivation (ISM), the Facilitating Conditions Questionnaire (FCQ) and a background demographic survey. Primary analysis techniques were factor analysis, multiple regression analysis and discriminant analysis.

Multiple regression analyses using the ISM indicate that the major predictors for both male and female students are broadly the same with intrinsic motivation and goal directed motivation being the most significant. Variables often thought to be important to Aboriginal motivation such as affiliation, competition, self-esteem and extrinsic motivation were not found to be significant predictors of the intention to continue with school to the HSC, or to drop-out for either male or female students.

Multiple regression analyses using the FCQ with the Year Ten group, however, show considerable differences in the importance of predictor variables for the male and female students. While affect to school, parental pressure to leave school and negative peer influence are the most important predictor variables affecting the female students' intention to complete the HSC, positive school influence and perceived value of school, together with school affect, are the most important for the male students.

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Discriminant analyses based on the Year Ten group the year after completion of the School Certificate also show important differences in the variables distinguishing the Aboriginal school leaver and non-leaver for the male and female subgroups.

The paper draws out the implications of these findings in the context of the need to improve the retention and academic performance of Aboriginal children at school.

While Aboriginal children appear particularly disadvantaged in educational performance and outcomes very little is known about the determinants of school motivation for this group generally, and in particular for non-traditional Aboriginal children in urban settings such as Sydney, Melbourne and larger country towns. What information is available is largely dated, and in many cases based upon anthropological research with remote and traditional groups which has little relevance for mainstream Aboriginal children. The most recent extensive study in this area (McInerney, 1988a, 1988b, 1989a, 1989b, 1989c, 1990, in press, McInerney & Sinclair, in press a, in press b) found that a consistent, powerful and unequivocal picture of the urban Aboriginal child at school emerged from the analyses which challenged many commonly held beliefs about the nature of Aboriginal motivation in school settings.

In contrast to the two comparator groups (Anglo and Migrant) the explanatory base for the Aboriginal child's decision-making within the school environment, particularly in the context of continuing with school, were restricted to a number of key variables: firstly, "sense of self" variables (viz, self-reliance, confidence and a sense of goal direction), secondly, facilitating variables, (in particular, parental support and help, and school support through teachers and peers), and finally, affect towards school. Many motivational variables such as affiliation, competition, social concern, and extrinsic motivation, which have been previously considered important aspects of Aboriginal motivation, were not significant variables in this research. A number of recommendations for making education more adaptive to the needs of Aboriginal children have been made on the basis of this research (McInerney, 1988a, 1989a, in press).

But are Aboriginal girls and boys similarly influenced by motivational and situational factors to continue with or leave school? Commonly it is believed that Aboriginal girls perform better at school and continue with school longer than Aboriginal boys. Demographic information from the original study shows that there was a diminution of intention to complete Year 12 from Year 7 to Year 10 for Anglo, Migrant and Aboriginal children, but with Aboriginal students having the lowest percentage of intention to complete Year 12 in every grade. Of the Aboriginal children female students were more positively inclined to continue with school than the males.

As the original research did not analyse the data by sex this paper reports on a study which addresses the following questions:

1. What are the similarities and differences in Aboriginal girls and boys school retention and intention to complete the Higher School Certificate?
2. What are the motivational and situational correlates of school retention for Aboriginal children in mainstream school settings, and are there sex differences in the importance of these correlates?

Method

Subjects

Subjects for the study were 476 Aboriginal students (m=230, f=246) from twelve regional high schools representative of schools having Aboriginal students in New South Wales.

Materials

Inventory of School Motivation (ISM)

The Inventory of School Motivation is an instrument designed to measure aspects of motivation in cross-cultural contexts, in particular it was designed to be appropriate to Aboriginal students (McInerney, 1988a, McInerney & Sinclair in press a, in press b). Principal axis factor analysis was used to validate the instrument and to derive the scales for use in the research. The following scales were derived for the Aboriginal group and the alpha reliability coefficient for each scale is presented in brackets: Intrinsic Motivation (.93), Extrinsic Motivation (.90), Recognition (.75), Self-esteem (.54), Self-reliance (.44), Affiliation (.67), Competition (.72), Social Concern (cooperation) (.68), Goal Directed (.71), and Confidence (doing easy school tasks) (.54).

Facilitating Conditions Questionnaire (FCQ)

Thirty nine questions were designed to measure the influence of variables considered by Aboriginal adults to be important in facilitating or inhibiting Aboriginal students' performance at school and later motivation to continue with school beyond the minimum school leaving age. In particular, questions were designed to measure the following dimensions: parental influence, peer influence, teacher influence, perceived value of school, and affect to school. Principal axis factor analysis was used to validate the instrument and to establish the scales to be used in the research (McInerney 1988b; 1989a). The following scales were derived and their alpha reliability coefficients are presented in brackets: Perceived value of school (.79), Peer influence (.71), School Influence (.75), Parental Support To Complete Year 12 (.80), Negative School Affect (.68), Parental Lack of Interest and Dole (.77), Negative Parental Pressure to Leave School (.89), Parental Lack of Interest in General (.77).

Procedure

Administration of the Survey

Each survey session began with a standardised explanation of the purpose of the survey and a request for the support of the students in completing the survey accurately. All questions were read aloud and Aboriginal research assistants were in attendance at each session to help students who were experiencing any difficulty.

Statistical Analyses

A series of multiple regression analyses using the set of empirically derived factor score scales representing motivational variables drawn from the Inventory of School Motivation and the Facilitating Conditions Questionnaire were employed to examine their influence on the intentions the male and female Aboriginal students had of completing Year 12 or leaving school as soon as possible. The SPSS Test procedure was utilized to study the relationship between the criterion variable and each predictor variable when all predictor variables were entered into the regression equation. Further to this, a series of stepwise regression equations were computed to determine the best set of predictor variables. All analyses used listwise deletion of missing data (unless otherwise stated). As a final test, using data from a Year Ten subsample, discriminant analyses with stepwise variable selection and minimization of Wilk's Lambda were utilized to demonstrate the usefulness of the variables in distinguishing between the female and male school leavers and non-leavers.

Simple independent samples T-tests were also used on mean scales derived from the defining items to examine significant differences between males and females on each of the scales.

Results

The following tables present the results for the T-test analyses conducted.

Table 1 t-tests for male and female Aboriginal students on mean scales derived from the Inventory of School Motivation

Scale	Aboriginal male		Aboriginal female		t
	M (n=230)	.SD	M (n=246)	.SD	
Intrinsic	2.13	.600	2.18	.557	.91
Extrinsic	2.93	.712	3.18	.631	4.05**
Competition	2.32	.890	2.68	.782	4.65**
Self-reliance	2.72	.716	2.90	.645	2.87**
Affiliation	2.82	.496	2.87	.490	1.19
Recognition	2.49	.884	2.65	.877	1.83
Social Concern	2.47	.840	2.37	.717	1.33
Neg Self-esteem	2.56	.779	2.31	.662	3.74**
Confidence	2.72	.879	2.83	.836	1.33
Goal directed	2.42	.971	2.53	.915	1.27

** p<.01

Table 2 t-tests for male and female Aboriginal students on mean scales derived from the Facilitating Conditions Questionnaire

Scale	Aboriginal male		Aboriginal female		t
	M (n=230)	.SD	M (n=246)	.SD	
Perceived value of school	2.17	.676	2.16	.623	.19
Parent press to leave school	4.29	.859	4.29	.886	.09
Negative peer pressure	3.21	.598	3.24	.529	.58
School influence	2.77	.730	2.73	.646	.72
Parent support to complete Yr12	2.54	1.138	2.67	1.121	1.20
Affect to school	2.74	.782	2.78	.809	.48
Parents and dole	4.37	.980	4.30	.976	.76
Parental attention	4.26	.895	4.21	.911	.59

T-tests were also conducted comparing male and females in Year 10. The results indicate that females show significantly more social concern (cooperative orientation) than males and that females are significantly more strongly in disagreement with the scale parental pressure to leave school than are the males.

Contrasts were also drawn between the leavers and non-leavers within each sex. Females who continued with school were significantly more goal directed and significantly less pressured to leave school than their companions who left school. The males who stayed at school were significantly more goal directed and liked school more than their male companions who had left.

Table 3 indicates the key predictors of completing Year 12 or dropping out of school for the full group and the Year 10 subgroup, by sex.

Table 3 Multiple Regressions Used to Predict Intentions for Male and Female Aboriginal Groups (full group m=238 f=254; Year 10 m=42, f=43) using the ISM scale

	Int 1		Int 2		Int 1		Int 2	
	beta weights full group				beta weights Year Ten			
	f	m	f	m	f	m	f	m
Intrinsic Motivation	.44**	.42**	<u>.35**</u>	<u>.38**</u>	.32	.46**	.14	<u>.59**</u>
Extrinsic Motivation	<u>.01</u>	.03	.11*	.06	.10	<u>.07</u>	<u>.12</u>	.26
Self-reliance	.11*	.09	<u>.09</u>	<u>.04</u>	.20	<u>.18</u>	<u>.11</u>	.13
Affiliation	.07	.04	<u>.00</u>	<u>.05</u>	.08	.11	<u>.07</u>	.01
Competition	<u>.00</u>	<u>.11*</u>	.01	.07	<u>.31</u>	<u>.19</u>	.31	.03
Teacher Recognition	<u>.02</u>	<u>.07</u>	<u>.02</u>	.11	.01	<u>.24</u>	.26	.19
Social concern	<u>.07</u>	.01	.11	<u>.13*</u>	<u>.20</u>	.03	.09	.04
Self-esteem	<u>.07</u>	.02	.11	.03	<u>.06</u>	.15	.17	<u>.04</u>
Confidence(easy tasks)	<u>.14**</u>	<u>.19**</u>	.10	.10	<u>.31*</u>	<u>.19</u>	.15	.09
Goal Directed	<u>.36**</u>	<u>.39**</u>	<u>.29**</u>	<u>.22**</u>	.33	<u>.55**</u>	<u>.24</u>	<u>.18</u>
Power	<u>.03</u>	<u>.02</u>	<u>.01</u>	.08	.12	.03	<u>.21</u>	.03
Mult R	.64**	.64**	.53**	.50**	.77**	.83**	.75**	.69**
R ²	.42**	.41**	.28**	.25**	.59**	.69**	.57**	.48**

* p < 0.05

** p < 0.01

Int 1 Intend to complete Year 12

Int 2 Intend to leave school as soon as possible

Note: negative beta weights are underlined

In the Test analysis for the Year 10 female group on Intention 1 Intrinsic Motivation, Competition and Goal Directed motivation approached significance at the .05 level. For Intention 2 Competition approached significance. For the male group on Intention 1 Recognition approached significance.

As the small sample size of Year 10 Aboriginal students presented some analysis problems for the Test procedure the stepwise multiple regression results will also be presented. Stepwise multiple regression results for the female Year Ten group indicated that for the intention of completing Year 12 two scales (accounting for 37% of the variance in the criterion variable) were able to predict this intention, viz, goal directed (Beta weight .45) and intrinsic motivation (Beta weight .31). For the male group three scales (accounting for 62% of the variance) were significantly related to the intention viz, goal directed (Beta weight .59), intrinsic motivation (Beta weight .35) and teacher recognition (Beta weight -.24). None of the other scales contributed much to the regression equation beyond that which could be explained by these three.

For the second intention (to leave school as soon as possible) two scales (accounting for 41% of the variance) were related to the criterion for the female group viz, teacher recognition (Beta weight .49) and self-esteem (Beta weight .38). In contrast only one variable was significantly related to the criterion variable for the male group that being Intrinsic motivation (Beta Weight -.59). This variable accounted for 34% of the variance. When all variables were entered in to the equation 48% of the variance was explained although none of the other scales reached significance.

Of the 39 females in the Year 10 sample 20 remained at school while 19 left school (50% retention) at the end of Year 10. Of the 35 males used for the analysis, 13 remained at school while 22 left (37% retention). To further examine the usefulness of the scales in distinguishing between female and male school leavers a discriminant analysis with stepwise variable selection and minimization of Wilk's Lambda was utilized with the predictor scales drawn from the ISM Table 4 presents a summary of the results.

Table 4 A comparison of the discriminant variables for male and female Aboriginal students using the ISM

Discriminant Variables	Standardized Canonical Discriminant Function Coefficients	
	Female	Male
Self-reliance	-	<u>.43</u>
Competition	<u>.53</u>	-
Social concern (cooperation)	<u>.58</u>	
Negative Self-esteem	<u>.54</u>	
Confidence (easy tasks)	.43	.46
Goal Directed	.63	.94
% of group correctly classified	74.36	80.00
Significance	.09	.00
n	39	35

Summary

Multiple regression analyses using the ISM indicate that the major predictors for both male and female students are broadly the same with intrinsic motivation and goal directed motivation being the most significant with confidence (choosing easy tasks) also being an important predictor for the intention to complete Year 12. Variables often thought to be important to Aboriginal motivation such as affiliation, competition, self-esteem and extrinsic motivation were not found to be significant predictors of the intention to continue with school to

the HSC, or to drop-out for either male or female students in analyses based on the full samples. Year 10 analyses further emphasized the importance of intrinsic motivation and goal directed motivation to both groups on intention 1. It should be noted that for the intention of leaving school as soon as possible competition and teacher recognition appear important predictors (although statistically non significant) for the female group but not for the male group for whom intrinsic motivation is again the most important predictor.

Discriminant analyses based on the Year Ten group the year after completion of the School Certificate show important differences in the variables distinguishing the Aboriginal school leaver and non-leaver for the male and female subgroups. A broader range of motivational variables appear influential in determining the female Aboriginal student's decision to continue with school beyond Year Ten, namely, goal directed motivation, social concern motivation, self-esteem, confidence and competition. For the male students three variables discriminated the leaver and non-leaver, namely, goal directed motivation, self-reliance motivation, and confidence.

FCQ Results

While the results of the FCQ are broadly similar for males and females two results should be noted. Negative peer influence is not a predictor for male Aboriginal children continuing with school, although it is an important predictor of them intending to leave school. While parental pressure to complete Year 12 is an important predictor for males it is not a predictor for females. However it is a predictor for both groups for the intention of leaving school as soon as possible. The most important predictor for the male full group is school influence followed by perceived value of school while for the female group it is parental pressure to leave school.

Multiple regression analyses using the FCQ with the Year Ten group show some further differences in the importance of predictor variables for the male and female students. While negative affect to school, parental pressure to leave school and negative peer influence are the most important predictor variables affecting the female students' intention to complete the HSC, parental support to complete Year 12, school influence and perceived value of school, together with school affect, are the most important for the male students. Table 5 presents a summary of the results for the multiple regression analyses.

Table 5 Multiple Regressions Used to Predict Intentions for Male and Female Aboriginal Groups (full group m=238 f=254; Year 10 m=42, f=43) using the FCQ Scale

	Int 1		Int 2		Int 1		Int 2	
	beta weights				beta weights			
	full group		m		Year Ten		m	
	f	m	f	m	f	m	f	m
Perc value of school	.25**	.24**	<u>.25**</u>	<u>.32**</u>	<u>.03</u>	<u>.34**</u>	.00	<u>.18</u>
Par press leave school	<u>.29**</u>	<u>.20**</u>	.29**	.24**	<u>.36**</u>	<u>.17</u>	.32	.25
Peer influence	<u>.14**</u>	<u>.05</u>	.21**	.17**	.30*	.16	.49**	.15
School influence	.17**	.30**	<u>.07</u>	<u>.16**</u>	<u>.07</u>	.29	.04	.07
Par support Yr12	.09	.18**	<u>.12**</u>	<u>.16**</u>	<u>.07</u>	.36**	.01	<u>.15</u>
School affect	<u>.28**</u>	<u>.24**</u>	.23**	.24**	<u>.55**</u>	<u>.50**</u>	<u>.57**</u>	.17
Parents and dole	<u>.07</u>	<u>.03</u>	.05	.06	<u>.13</u>	<u>.16</u>	.17	.25
Parent interest child	<u>.02</u>	<u>.02</u>	<u>.04</u>	<u>.01</u>	<u>.03</u>	<u>.19</u>	<u>.17</u>	<u>.36</u>
Mother's encourage	.08	.09	<u>.03</u>	<u>.06</u>	.12	.17	.04	<u>.05</u>
Mult R	.62** .59**		.58** .59**		.82** .77**		.75** .64**	
R ²	<u>.38**</u> <u>.35**</u>		<u>.34**</u> <u>.35**</u>		<u>.68**</u> <u>.59**</u>		<u>.57**</u> <u>.41**</u>	

* p < 0.05

** p < 0.01

Int 1 Intend to complete Year 12

Int 2 Intend to leave school as soon as possible

Note: negative beta weights are underlined

Again, small numbers made interpretation of the Test procedure difficult for the Year Ten male group on intention two with no variables achieving significance when analysed as a block (although parental interest in child approached significance $p=.07$). Stepwise multiple regression analysis highlights the differences between both groups on both intentions. Table 6 summarizes these results. In effect it appears that females are more reactive to negative influences while the males are more reactive to positive influences.

Table 6 A summary of key FCQ variables predicting intentions for male and female Aboriginal Year Ten students based on stepwise multiple regression analysis

Scales	beta weights intention 1		beta weights intention 2	
	f	m	f	m
Perc value of school	-	.34**	-	-
Negative school affect	<u>.56**</u>	<u>.39**</u>	.56**	-
Parent press leave school	<u>.40**</u>	-	.39**	-
Parent support comp Yr12	-	.33**	-	-
Peer influence	<u>.27**</u>	-	.29**	-
Parent lack interest in child	-	-	-	<u>.44</u>
Mult R	.80**	.63**	.83**	.44 **
R ²	.64**	.40**	.69**	.19**

* p < 0.05

** p < 0.01

Int 1 Intend to complete Year 12

Int 2 Intend to leave school as soon as possible

Note: negative beta weights are underlined

pairwise deletion of missing values used for analyses

Finally, to further examine the usefulness of the scales in distinguishing between female and male school leavers a discriminant analysis with stepwise variable selection and minimization of Wilk's Lambda was utilized with the predictor scales drawn from the FCQ Table 7 presents a summary of the results.

Table 7 A comparison of the discriminant variables for male and female Aboriginal students using the FCQ

Discriminant Variables	Standard Canonical Discriminant Function Coefficients	
	Female	Male
Parental support complete Yr12	-	.69
Parental press to leave school	<u>.69</u>	<u>.52</u>
Parents and dole	<u>.81</u>	-
Negative school affect	-	<u>.54</u>
Mother's encouragement	-	.41
% of group correctly classified	74	77
Significance	.00	.05
n	39	35

Discussion

While there is broad similarity between male and female predictors, important differences emerged from the analyses. The major common predictors of intention across the two groups on the ISM are intrinsic motivation and goal directed motivation. Year Ten male and female leavers and non-leavers were discriminated by different variables. In addition to confidence and goal directed motivation females were discriminated by competition, social concern (cooperation) and self-esteem, while for the males, self-reliance in addition to confidence (choosing easy tasks) and goal directed were important. It would appear from the findings that the females are more influenced by social variables (social concern and competition) than are the males. The more cooperatively oriented Year Ten girls are, the more likely they are to be in the group that leave school. It is interesting to note that the direction of social concern (cooperation) as a predictor for the male group is in the opposite direction, i.e., the more socially concerned males are the less likely they are to intend to leave school as soon as possible (see Table 3). This suggests that schooling through to Year 12 does not satisfy Aboriginal girls' needs for being cooperatively involved, while for the boys schooling either appears to provide for this need or it is not relevant to their decision making with regard to going on at school.

The analyses of the FCQ clearly indicate important differences between the males and females for the Year Ten groups. Of most interest is the importance of parental influence on the child's school retention. However the direction of the influence appears different for males and females. Female students appear more reactive to statements referring to negative parental pressures such as "my mother encourages me to leave school as soon as I want". To the extent female Aboriginal students agree or disagree with these negative statements then they agree or disagree with the intention of completing Year 12. On the other hand male Aboriginal students appear more reactive to positive statements such as "if I decided to go on to Year 12 my mother would encourage me". To the extent males agree or disagree with these positive statements gives a clear indication of their intention to complete Year 12. The interpretation of this is problematic. Perhaps it means that females are more sensitive to negative messages and males to positive messages. This contrast between the males and females is thrown into further relief when the results of the discriminant analysis are considered. Seventy four per cent ($p < .00$) of the female group were accurately classified as leavers or non-leavers on the basis of two variables, parental pressure to leave school, and parental lack of concern if the child was unemployed and on the dole. In contrast, while parental pressure to leave school was a significant discriminant variable for the males, parental support to complete Year 12, as well as mother's

encouragement (my mother tells me I am bright enough to go on to Year 12, and if I decide to go on to Year 12 my mother would encourage me) were discriminants for the males.

Attitudes and feelings of the students are also, of course, very important, and the data suggest that experiencing support and encouragement at school from both teachers and peers as well as perceiving value in school will lead to positive attitudes to completing Year 12. But when it comes to the bottom line parental influence is fundamental.

What must the school and community do?

The current position of Aboriginal children at school is untenable into the next century. Clearly both the educational and social communities of the children need to implement policies and practices to elevate the performance and retention of Aboriginal children at school. This paper gives some basis for examining key elements in the decision-making process for Aboriginal children deciding to continue with or leave school, and for considering what the school and community need to do.

In terms of the psychological processes considered, Aboriginal children can be highly intrinsically motivated and goal directed, and those children that express the intention to complete school. In this they are no different from Anglo and Migrant comparator groups considered in earlier research (McInerney 1988a, 1989a). However lack of confidence (i.e., choosing easy tasks, which is a characteristic of failure avoiding and learned helpless children) also strongly predicted Aboriginal intentions in contrast to the other groups. Furthermore Aboriginal girls appear influenced by the competitiveness of our schools and the lack of opportunity given by schools to act cooperatively with other students.

To what extent do schools encourage appropriate goal setting for Aboriginal children and teach appropriate goal achieving strategies? To what extent do schools communicate an expectation that Aboriginal children can be successful within school settings and develop the children's sense of competence and confidence? Clearly schools and communities must encourage Aboriginal children to set goals for achievement at school, and ensure that the children achieve meaningful goals and develop confidence in their abilities as students. It also appears, particularly for the Aboriginal female students, that schools need to become less competitive and more cooperative in their goal structures. Furthermore, self-esteem enhancement programs, together with a challenging relevant curriculum (based on intrinsic motivation rather than extrinsic rewards, and cooperation rather than competition) and appropriate guidance in goal setting should lead to enhanced school performance. The effective training of teachers to support the development of confidence and self-reliance among Aboriginal students is essential.

With regard to the external influences on Aboriginal children continuing with or leaving school the message is clear and unequivocal. The single most important factor influencing the Aboriginal child's school retention is parental encouragement and support. While various factors were suggested by Aboriginal community members as important influences on their children dropping out of school (McInerney, 1989b) when it comes to the bottom line it appears that school retention can largely be explained in terms of the type and level of parental encouragement Aboriginal children perceive their parents have given them. Again, comparative studies with Anglo and Migrant groups show that while parental influence is important to these groups a wider range of other variables is also implicated (McInerney, 1988a, 1989a) . Clearly there is a message here that schools and Aboriginal communities must heed. If large numbers of Aboriginal children are leaving school, and research implicates parental involvement as a major factor, then considerable resources must be allocated to parental education and to establishing support networks for the children that, if necessary, in loco parentis, provide the encouragement necessary for Aboriginal children, individually and collectively, to continue with school.

Along with this is a need to foster within Aboriginal children a perception of the importance of education (perhaps within their parents also). Results further suggest that a positive and supportive peer group, together with tangible school and teacher support for Aboriginal children, are associated with children's intentions to complete Year 12. Conversely, without this support and the strong support of their parents, Aboriginal children are doomed to be drop-outs.

References

- McInerney, D. M. & Sinclair, K. E. (in press a). Dimensions of school motivation: A cross-cultural validation study. Journal of Cross-Cultural Psychology.
- McInerney, D. M., & Sinclair, K. E. (in press b). Cross-cultural model testing: Inventory of school motivation. Educational and Psychological Measurement.
- McInerney, D. M. (in press). The key determinants of motivation of urban and rural non-traditional Aboriginal students in school settings: Recommendations for educational change. Australian Journal of Education.
- McInerney, D. M. (1990). A cross-cultural analysis of the determinants of motivation for urban Aboriginal students in school settings using the Triandis model of social behaviour. Journal of Cross-Cultural Psychology.
- McInerney, D. M. (1989a). A cross-cultural analysis of student motivation. In D. M. Keats, D. Munro & L. Mann (Eds.). Heterogeneity in cross-cultural psychology. Lisse: Zwets & Zeitlinger.
- McInerney, D. M. (1989b). Urban Aboriginals parents' views on education: A comparative analysis. Journal of Intercultural Studies, 10, 43-65.
- McInerney, D. M. (1989c). Psychological determinants of motivation of urban and rural non-traditional Aboriginal students in school settings. In P. Moir and M. Durham (Eds.). Contemporary Issues in Aboriginal Studies. Sydney: Firebird Press.
- McInerney, D. M. (1988a). The psychological determinants of motivation of urban and rural non-traditional Aboriginal students in school settings: A cross-cultural study. Unpublished doctoral dissertation, Sydney University, Sydney.
- McInerney, D. M. (1988b). A cross-cultural analysis of student motivation in school settings: An Australian perspective. In E. Thomas (Chair), Educational issues and cross-cultural psychology. Symposium conducted at the 9th International IACCP Congress, Newcastle, Australia.
- McInerney, D. M. (1988c). Psychological determinants of motivation of urban and rural non-traditional Aboriginal students in school settings: Summary of findings, conclusion and recommendations. Paper presented at the Annual National Conference on Aboriginal Issues, Nepean C. A. E.