Chapter

BUILDING THE FUTURE FOR REMOTE INDIGENOUS STUDENTS IN AUSTRALIA: AN EXAMINATION OF FUTURE GOALS, MOTIVATION, LEARNING AND ACHIEVEMENT IN CULTURAL CONTEXT*

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ABSTRACT

Education is the corner stone of social justice because it is the basis of opportunity (Burney, 2003), but education as currently provided is failing Indigenous students in the Northern Territory (NT) of Australia. Ramsey (2003) estimated that 20 per cent of NT Indigenous students did not attend school, and, although those who were enrolled comprised 32 per cent of the NT secondary cohort, the number who achieved a Northern Territory Certificate of Education in 2000 amounted to only 6

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per cent of the total school cohort. In 2009, 'educational outcomes in the bush remain abysmal' (Rothwell, 2009). Over half of the NT's Indigenous students leave school without completing secondary education. Many of them are, therefore, condemned to a life in which their potential is unrealised, and the fortunes of their families severely circumscribed. Little is known of what motivates or should motivate these young people to achieve successful school outcomes. This chapter reports on an Australian Research Council (ARC) funded research project, 'Building the future for Indigenous students', which asked 733 remote and very remote students what their hopes and dreams for the future were, what motivated them at school, and how they studied. Statistical analyses are used to establish the construct validity and reliability of psychological scales and to examine similarities and differences between very remote and remote indigenous students, and a comparator group of 300 non-Indigenous students. The findings provide critical hard data on the Indigenous students' future visions and aspirations, motivation, and approaches to study.

INTRODUCTION

Children from many indigenous cultural backgrounds, such as Aboriginal Australians, are particularly disadvantaged with regard to academic achievement and school retention (Bradley, Draca, Green, and Leeves, 2006; Hunter and Schwab, 2003; Mellor and Corrigan, 2004; Penman, 2006). Many demographic studies indicate that retention rates and school achievement for Indigenous groups, and most particularly for remote indigenous groups, lag far behind mainstream groups, and in some cases, retention rates appear to be worsening (Hossain, Gorman, Williams-Mozley, and Garvey, 2008; Rothwell, 2009; Shah and Widin, 2010). Many factors have been related to this situation. Socio-economic factors such as ill health, poverty, high unemployment, poor job prospects and racial prejudice are no doubt involved. Geographic and locale factors such as the placement of poorly prepared and inexperienced teachers in remote areas, high teacher turnover, isolation from mainstream experiences and lack of resources are also likely to have severe impact on the quality of education provided for these children (Leigh and Gong, 2009; Malin and Maidment, 2003; New South Wales Department of Community Services, 2009). Home background factors such as the relatively recent introduction of compulsory education for Indigenous people, particularly in remote areas of Australia, level of parental understanding of the importance and function of education, and level of parental encouragement and support for children to

continue schooling, are potentially important influencing factors on children's motivation to attend school. Substandard housing and overcrowding giving poor facilities for home study and relatively few Aboriginal models of success in a school environment are also likely to be implicated (Bradley et al., 2006; Dowson and McInerney, 2005; Gray and Beresford, 2002; Hewitt, 2000; Steering Commitee for the Review of Government Service Provision, 2009). Other influences posited from time to time include sociocultural factors such as: language (English is a second or third language for many remote Indigenous communities), discipline and academic achievement motivation, cognitive, motivational and learning style differences, socialization practices at variance to mainstream culture, and peer group influences antipathetic to formal schooling, shyness, and poor attendance (Boulton-Lewis, Marton, Lewis, and Wilss, 2004; 2000; Dockery, 2010; Johns, 2008; Sonn, Bishop, and Humphries, 2000).

It is also thought by some that a cultural conflict exists between the values and goals of a Westernised schooling and the values and goals of Indigenous communities predisposing children from these communities to drop-out (see, for example, Fogarty and White, 1994; Berry, Poortinga, Segall, and Dasen, 2002; James, Chavez, Beauvais, Edwards, and Oetting, 1995; Ledlow, 1992; Triandis, 2001). Authors discussing this issue suggest that while mainstream schools and teachers value mastery, future time orientation, competition and success, individuality and aggression, their Indigenous pupils, in contrast, value harmony, present time orientation, maintenance of the status quo, anonymity, submissiveness, group orientation and non competitiveness (Lee, 2002; McInerney and Swisher, 1995; Triandis, 2004; Tucker and Herman, 2002). As a result, remote Indigenous Australian children are often stereotyped as lacking the motivation to achieve and the cognitive and learning approaches needed to achieve in Western school settings. It is also proposed that they come from homes that lack the socialization practices needed to inculcate Western oriented achievement values in children (Dowson and McInerney, 2005; McInerney, 2003; 2000; McInerney, Yeung, and McInerney, 2000).

While the above factors may have an impact on the motivation and achievement of Indigenous students in mainstream school settings, and on their desire to complete schooling, there are inadequate research data available on many of these variables, and in particular on the psychological variables implicated. Indeed, many of these beliefs about the lack of achievement of Indigenous children in school settings are based upon little more than folkloric tradition passed on from teacher to teacher, or academic to academic. Little hard data exist to guide communities, schools and teachers in the

development of programs to improve this situation. Furthermore, many of these posited influences, such as socio-economic factors, lie outside the influence of the school and so remain intractable unless more effective social equality policies are introduced at a national level. Nevertheless, some of the above factors, particularly those dealing with motivational and learning factors lie within the influence of schools.

In this study we concentrate on motivational and learning variables. We examine, through a large scale psychometric study in thirteen remote and very remote Northern Territory schools, the goals Indigenous students have for their future and compare this with a non-Indigenous group. We also examine the nature of the motivational values held by remote and very remote Indigenous children in school settings and compare these to a non-Indigenous group at the same remote schools. We finally examine the approaches to learning endorsed by these children and compare them to those endorsed by the non-Indigenous students.

The research addressed the following questions:

- Are psychological scales drawn from Western research valid and reliable for Indigenous, non-Western students?

If valid and reliable:

- What *future goals* are endorsed by remote and very remote Indigenous students and are they any different from the non-Indigenous students?
- What *achievement goals* are endorsed by remote and very remote Indigenous students and is their endorsement of achievement goals different from those endorsed by non-Indigenous students?
- What *cognitive and learning strategies* are endorsed by remote and very remote Indigenous students and are they different from those endorsed by non-Indigenous students?

METHOD

This study was conducted among remote and very remote Indigenous communities in the Northern Territory of Australia for whom English is largely a second language, and for whom attendance at school is for many of

the participants relatively infrequent. A survey instrument was used to tap attitudes towards future goals, motivational goals, and cognitive and learning strategies. In the first instance items were drawn from established questionnaires (described below), which were then carefully scrutinized by key Indigenous informants as to the likely validity of the items in terms of constructs and language usage. The survey instrument went through a number of minor revisions before a final form was decided upon. The research, while clearly embedded within a Western tradition of research, sought to explore the validity and heuristic value of these psychological variables within a non-Western Indigenous community while taking account of cultural issues that might moderate the relevance and applicability of such psychological variables within a non-Western context.

Considerable logistics were involved in setting up the survey at each of the schools. Informed consent was obtained from the parents of the participants through negotiation with the participating schools, and informed consent was obtained from all students participating. Researchers visited each school at least once before the survey to ensure that the schools were prepared for the research and had allocated a suitable time for the survey to be conducted. The questionnaire was read aloud to maximize, as much as possible, completion rates in the available time, and to help alleviate problems participants may have had reading and completing the form on their own. At each presentation of the survey one or more Indigenous helpers were available to assist students who were having difficulty completing the form. Students that did not have permission or did not want to participate were provided with other activities to do.

Instruments

Items were drawn from six pre-existing instruments. (1) the Inventory of School Motivation (McInerney and Ali, 2006), (2) the General Achievement Goal Orientation Scale (GAGOS) (McInerney, Marsh, and Yeung, 2003) (3) the PISA Learning Scale (OECD, 2007), (4) the revised Learning Process Questionnaire (R-LPQ-2F; Kember, Biggs, and Leung, 2004), (5) the Future Goals Questionnaire (McInerney, Liem, Ortiga, Lee, and Mazano, 2008; Lee, McInerney, Liem, and Ortiga, 2010), and (6) the Goals-S (Dowson and McInerney, 2004) which has two parts, cognitive strategies (SRCS) and metacognitive strategies (SRMC). The survey form consisted of a total of five sections. The first section collected demographic data. The second section of

49 items asked students "what motivates you at school?" The third section of 65 questions asked students "how they liked to study and learn at school". The fourth section of 36 questions asked students how they regulated their learning. The fifth section of 8 questions asked students about their future goals. All questions apart from those in the fifth section (which included forced ranking questions) were answered using a Likert-type scale anchored with (1) strongly disagree and (5) strongly agree. Although schooling at even the very remote schools is conducted largely in English and questionnaires are commonly used within the school context the response format was carefully explained to the participants. Terms such as "motivation", "goals and aspirations" were explained out loud to the students, with visual examples and each section had a descriptive introduction explaining the purposes of the questions. Students were encouraged to complete the form with the questions being read out aloud, and told to answer truthfully as the survey was not a test, there were no right or wrong answers, and that no-one other than the researchers would see their answers.

Table 1. Number of Participants in Different Schools

School	N	Indigenous	Type
1	39	39	Very Remote
2	60	60	Very Remote
3	40	40	Very Remote
4	26	25	Very Remote
5	71	70	Very Remote
6	38	38	Very Remote
7	97	21	Remote
8	103	83	Remote
9	119	119	Remote
10	159	82	Remote
11	218	108	Remote
12	51	29	Urban
13	23	23	Urban
Total	1044	737	

Total very remote Indigenous students surveyed = 272.
Total remote Indigenous students surveyed = 413.
Total urban Indigenous students surveyed = 52.
Total non-Indigenous students surveyed in very remote and remote schools = 285.
Total urban non-Indigenous students surveyed = 22.

There was some skepticism expressed by school personnel that the remote and very remote Indigenous students would be able to complete the survey owing to three major factors: limited English reading, writing and aural listening skills; limited concentration span, and the limited cultural and applied relevance of the questions (constructs) to the participants. It was essential, therefore, to test the reliability and construct validity of the measurement instruments as a major element of the research design.

Participants

School sites were selected in collaboration with the Northern Territory Department of Employment, Education and Training (now named Northern Territory Department of Education and Training). A major criterion was to sample a wide range of both Central Australian desert, Arnhem Land and northern communities. Each school site had to have a sufficient number of Indigenous students enrolled and attending school on a regular basis to make a visit to the site practicable in terms of the amount of data collected relative to cost. Ultimately a good spread of sites was obtained which is listed in Table 1 below.

Thirteen school sites and 1044 participants contributed to the study. 66% of the participants were Aboriginal, 1.6% Torres Strait Islander, 2.8 % Aboriginal and Torres Strait Islander, and 30% (N=307) non-Indigenous. Most of the non-Indigenous students were drawn from four high schools in remote areas. 59% of the participants were male. The average age of the participants was 13.9 years, and they were drawn from Years 7 to 12, with a small number being drawn from combined classes in some of the smaller schools. Of the Indigenous respondents 45.6% were male and 53.9% were female. Of these 50.9% nominated that English was the predominant language spoken at home. 38.9% nominated that an Indigenous language was predominantly spoken at home. 8% nominated that both English and an Indigenous language was spoken at home equally. 13% indicated that they were raised by one parent, and 87% by two parents.

RESULTS AND DISCUSSION

The research set out to examine four questions:

- Are psychological scales drawn from Western research valid and reliable for Indigenous, non-Western students?

If valid and reliable:

- What *future goals* are endorsed by remote and very remote Indigenous students and are they any different from the non-Indigenous students?
- What *achievement goals* are endorsed by remote and very remote Indigenous students and is their endorsement of achievement goals different from those endorsed by non-Indigenous students?
- What *cognitive and learning strategies* are endorsed by remote and very remote Indigenous students and are they different from those endorsed by non-Indigenous students?

In the following sections of the Chapter we explore each of these questions.

Reliability. In line with the first objective of the study to test the reliability and construct validity of the survey scales for remote and very remote Indigenous students, reliability tests were conducted on scales comprising the survey using Cronbach's alpha. It was anticipated that there would be lower reliabilities among the Indigenous students than typically obtained for these scales among non-Indigenous students and, also variation from less to more remote Indigenous groups in the study with the very remote being less reliable than the remote and urban Indigenous students.

Reliabilities for pooled data for all participants across the full set of scales were very good with the lowest reliability coefficient being .52, but typically most reliabilities were over .70. However, when the reliabilities were decomposed into three major groupings, very remote Indigenous, remote Indigenous and non-Indigenous, it was apparent that there was variability in reliability across these groups. In all cases the very remote Indigenous students' reliabilities were lower than those for both the remote Indigenous students and the non-Indigenous students. However, in contrast to expectations, the remote Indigenous students' reliabilities were very similar to the non-Indigenous students and in many cases higher. Nevertheless, the reliabilities for the very remote Indigenous students were, in most cases and somewhat surprisingly, acceptable apart from the social scales in the Inventory of School Motivation (affiliation and social concern) where the reliabilities were unacceptably low. Refer to Tables 2a, 2b, and 2c below.

Table 2a. Reliabilities of Motivation Scale among Four Groups

Scale Reliabilities Motivation Scale	TOTAL	Very Remote	Remote	Urban	Non Indigenous
Task					
R	.52	.46	.54	.61	.57
Effort					
R	.74	.61	.78	.73	.77
Competition					
R	.78	.59	.79	.63	.71
Social Power					
R	.80	.67	.80	.75	.79
Affiliation					
R	.61	.30	.59	.48	.76
Social Concern					
R	.68	.52	.71	.77	.71
Praise					
R	.76	.65	.79	.68	.75
Token					
R	.80	.68	.83	.68	.78

Table 2b. Reliabilities of GAGOS Scale among Four Groups

Scale Reliabilities GAGOS Scale	TOTAL	Very Remote	Remote	Urban	Non Indigenous
General mastery					
R	.67	.55	.71	.68	.73
General performance					
R	.72	.59	.75	.48	.71
General social					
R	.71	.52	.71	.64	.80
Global motivation					
R	.79	.61	.74	.81	.86

Table 2c. Reliabilities of Learning Styles Scale among Four Groups

Scale Reliabilities Learning Styles	TOTAL	Very Remote	Remote	Urban	Non Indigenous
Control Strategies					
R	.67	.55	.69	.40	.75
Memorization					
R	.74	.67	.77	.51	.72
Elaboration1					
R	.71	.57	.74	.70	.75

Table 2c. Reliabilities of Learning Styles Scale among Four Groups (Continued)

Scale Reliabilities Learning Styles	TOTAL	Very Remote	Remote	Urban	Non Indigenous
Effort and Perseverance					
R	.71	.56	.72	.63	.77
Deep					
R	.73	.59	.76	.68	.71
Surface					
R	.64	.61	.62	.65	.61
Elaboration2					
R	.82	.67	.82	.79	.87
Organisation					
R	.79	.69	.79	.77	.82
Rehearsal					
R	.81	.67	.83	.73	.80
Monitoring					
R	.71	.60	.73	.60	.78
Planning					
R	.78	.72	.78	.62	.79
Regulating					
R	.72	.61	.72	.78	.78

Table 3a. The Goodness of Fit Statistics for the ISM

	χ^2	df	χ^2 / df	CFI	GFI	NNFI	RMSEA	SRMR
Overall sample (N=968)	1267.59	499	2.54	.98	.92	.97	.044	.048
Very remote indigenous (N=272)	703.01	499	1.41	.96	.84	.95	.040	.058
Remote indigenous (N=413)	944.15	499	1.89	.97	.87	.97	.050	.056
Remote non-indigenous (N=283)	919.98	499	1.84	.94	.84	.93	.053	.067

Table 3b. The Goodness of Fit Statistics for the GAGOS

	χ^2	df	χ^2 / df	CFI	GFI	NNFI	RMSEA	SRMR
Overall sample (N=968)	177.73	84	2.12	.99	.97	.98	.036	.034
Very remote indigenous (N=272)	132.31	84	1.58	.95	.93	.94	.049	.056
Remote indigenous (N=413)	148.11	84	1.76	.98	.95	.98	.045	.042
Remote non-indigenous (N=283)	117.38	84	1.40	.99	.95	.98	.038	.046

Table 3c. The Goodness of Fit Statistics for the PISA Learning Scale

	χ^2	df	χ^2 / df	CFI	GFI	NNFI	RMSEA	SRMR
Overall sample (N=968)	250.90	113	2.22	.99	.96	.99	.041	.034
Very remote indigenous (N=272)	137.29	113	1.21	.98	.93	.98	.036	.050
Remote indigenous (N=413)	160.52	113	1.42	.99	.95	.99	.034	.040
Remote non-indigenous (N=283)	275.68	113	2.44	.97	.89	.96	.074	.062

Table 3d. The Goodness of Fit Statistics for the LPQ

	χ^2	df	χ^2 / df	CFI	GFI	NNFI	RMSEA	SRMR
Overall sample (N=968)	244.97	53	4.88	.93	.95	.91	.071	.059
Very remote indigenous (N=272)	76.24	53	1.40	.95	.94	.94	.045	.057
Remote indigenous (N=413)	147.49	53	2.84	.93	.92	.91	.080	.065
Remote non-indigenous (N=283)	157.83	53	2.98	.86	.91	.82	.086	.094

Table 3e. The Goodness of Fit Statistics for the Goals-S(SRCS)

	χ^2	df	χ^2/df	CFI	GFI	NNFI	RMSEA	SRMR
Overall sample (N=968)	321.71	132	2.44	.99	.96	.99	.044	.032
Very remote indigenous (N=272)	223.56	132	1.69	.95	.89	.94	.058	.061
Remote indigenous (N=413)	236.52	132	1.79	.98	.92	.98	.050	.041
Remote non-indigenous (N=283)	238.28	132	1.81	.98	.91	.98	.056	.047

Table 3f. The Goodness of Fit Statistics for the Goals-S (SRMC)

	χ^2	df	χ^2/df	CFI	GFI	NNFI	RMSEA	SRMR
Overall sample (N=968)	518.87	132	3.93	.96	.92	.96	.067	.051
Very remote indigenous (N=272)	211.33	132	1.60	.94	.90	.93	.051	.062
Remote indigenous (N=413)	291.83	132	2.21	.96	.90	.96	.068	.057
Remote non-indigenous (N=283)	267.03	132	2.02	.97	.90	.97	.067	.056

In summary, the reliability analyses confirmed the expectation that the very remote Indigenous reliabilities would be lower than the non-Indigenous. The remote Indigenous students' reliabilities and those of the non-Indigenous students were very similar and quite high across most scales. The reliabilities for the very remote group were, however, adequate.

Confirmatory Factor Analysis. A more thorough check on construct validity and whether the survey questions were being responded to in a systematic manner was conducted through confirmatory factor analysis (CFA). Each of the scales within each section of the survey was subjected to CFA. Four groups were examined: whole sample, very remote Indigenous, remote Indigenous, remote non-Indigenous. The urban samples (Indigenous and non-Indigenous) were not included in the CFA's owing to small sample size (N=52, N=22 respectively). The preliminary results without any post-hoc

adjustments were promising with the RMSEA and SRMR across most scales for all groups in general approaching or meeting the threshold of $<.05$ (an exception being the Learning Process Questionnaire which was uniformly poorly fitted across all groups on these two indices).

Other typical goodness of fit indices such as NNFI, CFI, and GFI were, in general, strong across the groups, typically greater than .85 with most exceeding the .9 threshold. Of particular note here is that the goodness of fit for the very remote Indigenous group met the threshold for almost all scales indicating that the measurement validity was quite strong for this group. Refer to Tables 3a to 3f for fit statistics.

Future goals. Our second question addressed the level of endorsement of future goals that remote and very remote Indigenous students held, and whether they were different from non-Indigenous students.

Table 4. Rank Ordering of Future Goals (Full group)

Future Goals	1st	2nd	3rd	4th	5th	6th	7th	8th
I want to become an important person in my community	9.8	5.9	10.0	20.8	20.2	13.4	11.2	8.8
I want to get a good job	36.8	34.5	14.5	4.9	3.1	2.9	1.5	1.8
I want to make a lot of money	13.5	24.5	30.9	11.4	4.9	4.7	4.1	6.0
I want to support a family	29.8	22.0	23.8	11.9	5.1	3.1	2.4	1.8
I want to make a contribution to my community	1.3	3.4	5.4	16.4	27.1	22.6	15.1	8.8
I want to leave my community to work	2.7	4.0	7.4	19.3	15.3	19.0	16.0	16.3
I want to become a community elder	1.6	2.7	3.2	6.5	11.1	20.1	26.3	28.4
I want to get a job in my community such as a teacher, police, or nurse	6.7	4.8	5.6	9.4	13.2	12.8	21.2	26.5

Future goals are self-relevant, self-defining goals that provide incentive for action. They are self-determined and may reflect such things as pursuing an education, work or career, establishing a family, and making a contribution to society. Holding valued future goals is important to students because these future goals help give meaning to school tasks. In this study we asked students to indicate how important the following future goals were to them: becoming an important person, getting a good job, making a lot of money, supporting a family, contributing to their community, leaving the community to work, becoming a community elder, and getting a valued job in the community.

Two styles of questions assessed the importance of eight future goals to the students. The first was a forced ranking from 1 to 8 of each of the goals, in which students had to number their most important future goal (1), their second most important future goal (2), through to their least important future goal (8). The results for this are presented in Tables 4 and 5 below. The second type of question asked students to agree or disagree on a five point Likert-type scale to each of the future goals separately (see Table 6 below). Let us first examine the future goals to which very remote Indigenous, remote Indigenous, urban Indigenous, and non-Indigenous students aspired as a group.

Keeping in mind that these results are for the full sample, the most frequently endorsed first choice future goal was ‘want to get a good job’ (36.8%) and the second “want to support a family’ (29.8%). The least frequently endorsed future goal was ‘want to make a contribution to my community’ (1.3%) and ‘want to become a community elder’ (1.6%). The three most popular second choices were ‘get a good job’, ‘make a lot of money’ and ‘support a family’. In effect, over 60% of the students listed ‘I want to get a good job’ as their first or second choice, while approximately 52% listed ‘I want to support a family’ as their first or second choices. The importance of money begins to emerge from the second and third choices. Less popular choices were ones related to community orientation such as ‘want to become a community elder’, ‘make a contribution to my community’, ‘becoming an important person’ and ‘get a job in my community’. However, this lack of community orientation should be considered alongside responses to the question relating to whether students wanted to leave their community to get a job which was also ranked lowly as a goal. It is important to note here that these responses were from the pooled data across all schools and included both Indigenous and non-Indigenous results.

When the rankings were disaggregated by very remote Indigenous, remote Indigenous and remote non-Indigenous interesting patterns emerged, as illustrated in Table 5. Considering the total percentages given for the first three

ranks across the three groups on getting a good job, making a lot of money, and supporting a family the remote non-Indigenous group was higher on each future goal, followed by the remote Indigenous and then the very remote Indigenous group. Although 68.7% of very remote students ranked getting a good job in their top three, this was considerably lower than the remote Indigenous (85.6%) and the remote non-Indigenous (95.9%). And while 47.2% of the very remote Indigenous participants ranked making money and 59.3% supporting a family in the top three, the relative percentages for the remote Indigenous group were 69.0% and 75.9% respectively, and the non-Indigenous group 82.8% and 85.0% respectively. Particularly noteworthy here is the lower overall ranking of getting a good job by the very remote Indigenous students. This is underlined by the consistent pattern of lower ranking by this group of two other job related goals, making money, and supporting a family.

In interesting contrast to these findings, the very remote Indigenous group ranked becoming an important person in the community more highly as a first choice than either of the other two groups, and when aggregated across the first three rankings 44.6% of the very remote participants ranked this in their first three choices in contrast to 27.0% and 14.3% of the remote Indigenous and very remote non-Indigenous students respectively. Two other features are worth drawing attention to, namely the future goals of wanting to leave the community to work where 24.6% of the very remote Indigenous students listed this in their first three choices in contrast to 13.1% and 8.6% for the remote Indigenous and non-Indigenous students respectively, and wanting to get a job as a teacher, police or nurse where 34.4% of the very remote Indigenous students listed this in their first three choices, in contrast to 15.7% and 7.1% of the remote Indigenous and non-Indigenous respectively.

Two other future goals, making a contribution to my community and becoming a community elder were similarly endorsed as 4^{th}, 5^{th} 6^{th} and 7^{th} choices across the three groups.

It appears from the forced ranking of eight future goals that while there was a striking similarity in the relative rankings within each group, that is, that getting a good job, making money, and supporting a family were pre-eminently endorsed in the first three ranks across the groups, there were considerable differences between the groups with a smaller percentage of the very remote group listing these as first ranked goals. In contrast, leaving community and getting a professional job in the community were more often mentioned in the first three choices by the very remote group.

Table 5. Rank Ordering of Future Goals in Very Remote Indigenous, Remote Indigenous, and Remote Non-Indigenous NT High School students

Future Goals	Groups	1st	2nd	3rd	4th	5th	6th	7th	8th
I want to become an important person in my community	Very Remote Indigenous	23.6	7.2	13.8	7.2	13.8	10.3	15.9	8.2
	Remote Indigenous	10.1	7.9	9.0	21.2	18.0	14.0	7.1	12.7
	Remote non-Indigenous	1.8	3.7	8.8	27.5	26.4	15.0	13.2	3.7
I want to get a good job	Very Remote Indigenous	27.9	26.9	13.9	10.4	7.0	5.5	3.0	5.5
	Remote Indigenous	35.4	34.6	15.6	5.0	3.2	4.0	1.6	0.8
	Remote non-Indigenous	46.5	36.6	12.8	1.5	0.4	0.4	0.7	1.1
I want to make a lot of money	Very Remote Indigenous	7.7	16.4	23.1	9.7	9.2	10.8	9.2	13.8
	Remote Indigenous	13.6	26.1	29.3	12.3	4.8	4.0	4.0	5.9
	Remote non-Indigenous	16.5	28.6	37.7	9.5	1.8	2.2	1.5	2.2
I want to support a family	Very Remote Indigenous	22.3	21.8	15.2	17.8	7.1	7.1	5.6	3.0
	Remote Indigenous	31.0	18.6	26.3	9.8	6.4	3.4	2.4	2.1
	Remote non-Indigenous	30.4	26.4	28.2	11.0	3.3	0.4	0.0	0.4
I want to make a contribution to my community	Very Remote Indigenous	4.1	9.3	8.3	17.1	21.8	17.1	14.0	8.3
	Remote Indigenous	1.1	2.7	5.1	16.9	23.3	22.5	16.9	11.5
	Remote non-Indigenous	0.0	1.1	2.6	14.9	35.7	25.3	14.5	5.9
I want to leave my community to work	Very Remote Indigenous	2.6	7.3	14.7	16.8	11.0	17.3	12.6	17.8
	Remote Indigenous	3.7	4.3	5.1	18.1	18.7	17.3	16.0	16.8
	Remote non-Indigenous	1.5	1.5	5.6	25.6	13.0	21.9	18.1	13.0
I want to become a community elder	Very Remote Indigenous	3.1	7.8	7.3	9.8	15.0	15.5	21.2	20.2
	Remote Indigenous	1.1	2.1	3.8	7.5	13.9	24.9	28.4	18.2
	Remote non-Indigenous	1.5	0.4	0.4	4.1	5.2	16.2	24.4	48.0
I want to get a job in my community such as a teacher, police, or nurse	Very Remote Indigenous	17.7	10.6	6.1	10.6	13.1	11.1	13.1	17.7
	Remote Indigenous	5.3	4.3	6.1	9.9	12.0	8.8	21.6	32.0
	Remote non-Indigenous	1.5	1.9	3.7	7.0	15.6	18.9	27.0	24.4

Anova tests based on the Likert-scale format for future goals (see Table 6 below) indicated that there were a number of significant differences between the groups. For these analyses we included the urban Indigenous group. Remote students were significantly higher on *important person* than very remote Indigenous and non-Indigenous groups. There was no other significant difference between groups. The very remote students were significantly lower on *job value* than the remote and non-Indigenous groups and significantly lower on *make money* than any of the other three groups which is in line with the forced ranking results reported above. The non-Indigenous group was

significantly lower than the very remote and remote groups on *make money*. There were no significant differences between the three Indigenous groups on *support family*. However, the non-Indigenous group was significantly lower on this dimension than the very remote and remote groups, in contrast to the forced ranking results above. This pattern was repeated for the *contribute to community* dimension.

There were no significant differences between the Indigenous groups on the *leave community to work* dimension although in the forced ranking approach the very remote Indigenous students ranked this more highly as their 3rd choice. The non-Indigenous group was significantly lower on the *become an elder* dimension than the very remote and remote groups, but was not different to the urban group on this dimension. Finally, there were no significant differences between groups on the *become a professional (teacher, police, nurse)* dimension.

Table 6. Future Goals and differences between Very Remote (VR), Remote (R), and Urban (U) Indigenous, and Non-Indigenous (NI) NT High School students

	Groups							
	M(SD)				*SD*			
	VR	R	U	NI	VR	R	U	NI
Important Person	3.98^{a}	4.25^{b}	3.96^{ab}	3.88^{a}	1.34	0.97	1.07	1.11
Job Value	4.21^{a}	4.60^{b}	4.54^{ab}	4.49^{b}	1.17	0.68	0.80	0.88
Make Money	3.78^{a}	4.36^{b}	4.33^{bc}	4.11^{c}	1.26	0.90	0.96	1.08
Support Family	4.34^{a}	4.50^{a}	4.42^{ab}	4.10^{b}	1.01	0.77	0.70	1.06
Contribute to Community	3.91^{a}	4.01^{a}	3.69^{ab}	3.35^{b}	1.19	1.04	1.01	1.11
Leave Community to Work	3.60^{ab}	3.86^{a}	3.44^{ab}	3.56^{b}	1.45	1.15	1.07	1.14
Become Elder	3.57^{a}	3.68^{a}	3.19^{ab}	2.82^{b}	1.41	1.23	1.10	1.23
Become Professional	4.00^{a}	3.98^{a}	3.71^{a}	3.75^{a}	1.30	1.31	1.36	1.37

Note. means with different superscripts in a row are significantly different from each other.

VR very remote Indigenous.

R remote Indigenous.

U Urban Indigenous.

NI non-Indigenous.

Achievement goals. Our second question addressed the level of endorsement of achievement goals by remote and very remote Indigenous students and whether there were significant differences across groups including urban Indigenous, and non- Indigenous students.

Achievement goals are the motivational purposes students adopt for their learning in achievement situations. Two goals commonly researched are mastery approach and performance approach goals. Students who hold mastery approach goals focus on improving or developing understanding, competence and skills, according to self-set standards. In contrast, students who hold performance approach goals focus on demonstrating competence or ability relative to others. In this research two constructs represent a mastery goal orientation, namely, task and effort, and two constructs represent a performance goal orientation, namely competition and power. Two goals, social goal orientation and an extrinsic goal orientation are less well researched. Students who hold social goals value building or maintaining inter-personal relationships and helping others in their learning. Students with extrinsic goals are motivated by praise and rewards as a form of recognition of their work. In this research two constructs represent a social goal orientation, namely, social concern and affiliation, and two constructs represent an extrinsic goal orientation, namely, praise and token (Ames, 1992; Anderman and Dawson, 2011; Covington, 2000; Dowson and McInerney, 2003; Kaplan and Maehr, 2007; McInerney, 2008; McInerney and Ali, 2006; Meece, Anderman, and Anderman, 2006; Schunk, Pintrich, and Meece, 2008).

The eight motivation goal orientations described above were drawn from the Inventory of School Motivation (ISM) (McInerney and Ali, 2006). Students' achievement goals have been shown to affect the way students process learning materials, how much they are involved or motivated in academic activities, and eventually their achievement outcomes. Mastery approach goals such as task involvement and effort, have been consistently associated with deep-level processing of information and self-regulated learning as well as higher academic achievement and hence are considered adaptive goal orientations. Performance approach goals, such as social power and competitiveness, in contrast, tend to be associated with surface, rote-level processing of information and in general, lower academic performance. While extrinsic goals such as token rewards may be important to motivate and engage lower achieving students they are often negatively related to achievement at school, and so should be used sparingly. Praise, while an extrinsic reinforcer, may be beneficially used to enhance learning engagement. Students who are achieving well are usually not dependent on extrinsic

rewards and praise must be used strategically and appropriately to have a positive effect. For this reason performance goal orientations are considered to be less adaptive than mastery goal orientations. It is still unclear how social goals such as affiliation and social concern orientations affect learning and achievement outcomes. However, there is some evidence that high achieving students, who are socially concerned also like to assist their peers to do well. On the other hand those who are affiliation oriented (for example, wanting to be at school primarily to socialise with friends) achieve at lower levels than those who are mastery or performance oriented.

Four general motivation goals (mastery general, performance general, social general and global motivation) drawn from the General Achievement Goal Orientation Scale (GAGOS) (McInerney, Marsh, and Yeung, 2003) were also used in the study.

Inventory of School Motivation (ISM). Table 7 presents the results for the ISM analyses. There were no significant differences in the task variable between the four groups. The very remote and remote Indigenous students were significantly more effort oriented than either the urban Indigenous students or the non-Indigenous students. There was no difference between the urban Indigenous students and the non-Indigenous students on this scale. The very remote Indigenous students were significantly more competitive and social power oriented than either of the other groups. The remote Indigenous students were significantly more competitive and social power oriented than the urban Indigenous and non-Indigenous students. There was no difference between the urban Indigenous and non-Indigenous students. The very remote Indigenous students were significantly more social concern oriented than any of the other three groups. The urban Indigenous group was significantly less social concern oriented than the remote Indigenous and non-Indigenous students. There was no difference between the remote Indigenous and non-Indigenous students on this dimension. The very remote Indigenous and remote Indigenous students were significantly more affiliation oriented than the non-Indigenous group, however, there was no difference between the urban Indigenous students and the non-Indigenous students. The very remote Indigenous students were significantly higher on praise and token than the other three groups, and the remote Indigenous group was significantly higher than the non-Indigenous students. There was no difference between the remote group and urban Indigenous group in praise, but the remote Indigenous group was significantly higher than the urban Indigenous group on token. However, there was no difference between the urban Indigenous and non-Indigenous students on these two variables.

Table 7. Level of Motivational (ISM) and differences in Very Remote, Remote, and Urban Indigenous, and Non-Indigenous NT High School students

	Groups							
	M				*SD*			
	Very remote	Remote	Urban	Non-Indigenous	Very remote	Remote	Urban	Non-Indigenous
Task	3.90[a]	4.03[a]	4.00[a]	4.05[a]	0.78	0.62	0.68	0.59
Effort	3.92[a]	3.93[a]	3.55[b]	3.68[b]	0.77	0.73	0.73	0.74
Competition	3.91[a]	3.23[b]	2.58[c]	2.64[c]	0.79	1.01	0.84	0.89
Social Power	3.54[a]	2.94[b]	2.48[c]	2.51[c]	0.90	0.95	0.82	0.85
Social Concern	3.89[a]	3.70[b]	3.20[c]	3.60[b]	0.71	0.75	0.79	0.68
Affiliation	3.94[a]	3.92[a]	3.94[ab]	3.69[b]	0.78	0.83	0.72	0.95
Praise	3.99[a]	3.81[b]	3.49[bc]	3.46[c]	0.79	0.79	0.72	0.79
Token	3.96[a]	3.63[b]	3.11[c]	3.11[c]	0.86	1.01	0.84	0.96

Note. means with different superscripts in a row are significantly different from each other.

In summary, there were significant differences across the groups. In general, the very remote Indigenous group was significantly higher than the other groups on most of the eight motivational variables. This might indicate a response bias. The pattern across the other three groups was more variable although there were very few significant differences between the urban Indigenous students and the non-Indigenous students. Probably the most salient points to come out of these ANOVA results are 1). that the very remote Indigenous students were significantly high on four of the dimensions relative to the other groups (competition, social power, social concern and praise) which is counter to what might have been expected; 2). there was only one significant difference between the urban Indigenous group and the remote non-Indigenous group (social concern); 3). On six dimensions there was a significant difference between the remote Indigenous and the non-Indigenous participants with the remote Indigenous being significantly higher on each of these dimensions (the exceptions being task and social concern).

General Achievement Goal Orientation Scale (GAGOS). Table 8 presents the results for the GAGOS analyses. There were no significant differences between groups on the general mastery scale. The very remote Indigenous group was significantly higher than the other three groups on general performance orientation. The remote Indigenous group was significantly

higher than the non-Indigenous group. There was no significant difference between the urban Indigenous and non-Indigenous groups. The very remote Indigenous group was significantly higher on the general social scale than the non-Indigenous group. There were no other significant differences on this scale. The very remote Indigenous group was significantly higher on the global motivation scale than the other three groups. The remote Indigenous group was significantly higher than the urban Indigenous and non-Indigenous groups. There were no significant differences between these latter two groups.

In summary, while it appears that there may be a positive response bias for the very remote Indigenous students, these findings shed important light on the motivation goal orientations of Indigenous students, namely, 1). There were no differences in mastery orientation, which is one of the key predictors of academic engagement and success at school; 2). The Indigenous groups appear to be more performance oriented than the non-Indigenous group, 3). There was little difference between groups on social motivation, and 4). The very remote and remote Indigenous groups were higher on global motivation than the other two groups. Finally, it is important to note that general mastery, in keeping with much international research, was the most highly endorsed motivational orientation across all groups.

Learning strategies. Our last question examined the cognitive and learning strategies endorsed by remote and very remote Indigenous students and similarities and differences across groups. Learning strategies are the approaches that students use in learning. Such strategies include establishing connections between new topics and existing knowledge, memorizing, and making sure of their understanding of what they learn. Research has shown that the learning strategies a student adopts for learning an academic task influence the quality of learning outcomes achieved (Heikkilä and Lonka, 2006; Liem, Lau, and Nie, 2008; Pugh and Bergin, 2006; Zimmerman, 2008). Students who adopt deep learning strategies—organizing new information, relating ideas, and monitoring their understanding of learning materials—perform better on academic tasks. Surface learning strategies (e.g. memorization) are often associated with boredom, fear of failure, and assessment methods that reward low-quality learning (Nesbit and Adesope, 2006; Pugh and Bergin, 2006; Watkins, McInerney, Akande, and Lee, 2003; Watkins, McInerney, Lee, Akande, and Regmi, 2002; Wolters, 2004). Table 9 presents the results for the learning strategies analyses.

Table 8. Level of GAGOS and differences in Very Remote, Remote, and Urban Indigenous, and Non-Indigenous NT High School students

	Groups							
	M				*SD*			
	Very remote	Remote	Urban	Non-Indigenous	Very remote	Remote	Urban	Non-Indigenous
General Mastery	4.05[a]	4.11[a]	3.97[a]	3.99[a]	0.72	0.64	0.53	0.64
General Performance	3.84[a]	3.45[b]	3.18[bc]	3.08[c]	0.81	0.91	0.74	0.86
General Social	3.86[a]	3.78[ab]	3.74[ab]	3.63[b]	0.87	0.90	0.84	0.98
Global Motivation	3.98[a]	3.72[b]	3.36[c]	3.28[c]	0.82	0.76	0.81	0.91

Note. means with different superscripts in a row are significantly different from each other.

Table 9. Level of Learning Strategies and differences in Very Remote, Remote, and Urban Indigenous, and Non-Indigenous NT High School students

	Groups							
	M				*SD*			
PISA	Very remote	Remote	Urban	Non-Indigenous	Very remote	Remote	Urban	Non-Indigenous
Control Strategies	3.73[a]	3.71[a]	3.49[ab]	3.50[b]	0.76	0.72	0.59	0.74
Memorisation	3.81[a]	3.58[b]	3.12[c]	3.09[c]	0.88	0.92	0.74	0.85
Elaboration1	3.73[a]	3.57[a]	3.16[b]	3.37[b]	0.83	0.79	0.73	0.81
Effort and Perseverance	3.86[a]	3.79[a]	3.38[b]	3.47[b]	0.80	0.79	0.76	0.86
LPQ								
Deep	3.64[a]	3.42[b]	3.00[c]	3.04[c]	0.73	0.78	0.63	0.71
Surface	3.68[a]	3.50[b]	3.11[c]	3.20[c]	0.73	0.66	0.65	0.67

Note. means with different superscripts in a row are significantly different from each other.

Table 10. Level of Learning Strategies and differences in Very Remote, Remote, and Urban Indigenous, and Non-Indigenous NT High School students

	Groups							
	M				*SD*			
GOAL-S (SRCS)	Very remote	Remote	Urban	Non-Indigenous	Very remote	Remote	Urban	Non-Indigenous
Elaboration2	3.77[a]	3.58[b]	3.08[c]	3.26[c]	0.78	0.80	0.72	0.82
Organisation	3.80[a]	3.53[b]	3.17[c]	3.24[c]	0.76	0.77	0.76	0.81
Rehearsal	3.86[a]	3.56[b]	3.04[c]	3.21[c]	0.74	0.82	0.70	0.79
GOAL-S (SRMC)								
Monitoring	3.68[a]	3.74[a]	3.37[b]	3.49[b]	0.75	0.68	0.56	0.71
Planning	3.77[a]	3.65[a]	3.08[b]	3.29[b]	0.84	0.79	0.64	0.78
Regulating	3.71[a]	3.89[b]	3.57[a]	3.66[a]	0.76	0.66	0.71	0.75

Note. means with different superscripts in a row are significantly different from each other.

Self-regulation refers to students' self-generated thoughts, feelings, and actions towards attaining an academic goal. It includes processes such as planning and managing time, attending to and concentrating on instruction, organizing information, establishing a productive work environment, and seeking help effectively.

In this study we examined 12 learning and self-regulation strategies. Four learning strategies, viz, control strategies, memorization, elaboration(1), and effort and persistence are drawn from the Program for International Student Assessment (PISA) inventory. Two learning strategies, deep and surface learning are drawn from the Learning Process Questionnaire (Kember, Biggs, and Leung, 2004). Six self-regulation strategies, viz., elaboration(2), organization, rehearsal, monitoring, planning and regulating are drawn from the GOAL-S inventory (Dowson and McInerney, 2004) with the first three dimensions (elaboration(2), organization and rehearsal) being cognitive strategies (SRCS) and the latter three dimensions (monitoring, planning and regulating) being metacognitive strategies (SRMC). Refer to Table 9 and Table 10 for the means and standard deviations for each of these variables.

With regard to the PISA dimension, the non-Indigenous students were significantly lower on control strategies than either the very remote Indigenous or remote Indigenous students. There was no difference with the urban Indigenous students. The very remote Indigenous group was significantly higher on memorization than any of the other groups, and the remote Indigenous group was significantly higher than either the urban Indigenous or non-Indigenous groups, with no significant differences between the latter two groups. The very remote Indigenous and remote Indigenous groups were significantly higher on elaboration(1) than the urban Indigenous and non-Indigenous groups, but not significantly different from each other. There was no significant difference between the urban Indigenous and non-Indigenous students on this dimension. This pattern was repeated for the effort and perseverance dimension. The very remote Indigenous group was significantly higher than each of the other groups on deep and surface learning. The remote group was significantly higher on deep and surface than the urban and non-Indigenous groups, but there was no significant difference between these latter two groups. This pattern was repeated for elaboration(2), organization and rehearsal dimensions (taken from the GOALS-S). The very remote Indigenous and remote Indigenous groups were not significantly different from each other on the monitoring and planning dimensions, but were significantly higher than either the urban Indigenous and non-Indigenous groups on both of these dimensions. The latter two groups were not significantly different to each

other. Finally the remote Indigenous group was significantly higher on regulating than any of the other groups, between which there were no significant differences.

In summary, the patterns of responses suggest no significant differences between the urban Indigenous and non-Indigenous groups on any of the learning strategy dimensions taken from three different sources (PISA, LPQ and GOAL-S). In general the very remote Indigenous and remote Indigenous groups were significantly higher than the urban Indigenous and non-Indigenous groups on most dimensions, with the very remote group being significantly higher than the remote groups on seven of these dimensions. Although there are significant differences these are relatively minor. The level of endorsement of each of the 12 learning strategies is similar across the four groups with the higher mean scores of the very remote Indigenous group perhaps suggesting a response bias, as noted earlier. Substantially, the results provide evidence that the scales used have meaning for the very remote and remote Indigenous students in the study.

DISCUSSION AND CONCLUSION

This research set out to examine four questions: Are psychological scales drawn from Western research valid and reliable for Indigenous, non-Western students, and if valid and reliable, what future goals, achievement goals, cognitive and learning strategies are endorsed by the participants in this study, and does level of endorsement vary by group? The results of the reliability and construct validation tests on the various instruments used give evidence that both the constructs and methodology used were appropriate to the remote Indigenous and very remote Indigenous students participating in the survey.

Based on this validity evidence the research explored the relevance and importance of eight future goals; the salience of a range of motivational goal orientations, and the salience of cognitive and learning strategies used by very remote Indigenous, remote Indigenous, and urban Indigenous students. The data provide interesting insights into the future goals, motivational orientations, and cognitive and learning strategies of very remote and remote Indigenous students and which confirm that Indigenous students perceive their learning in ways similar to a comparison non-Indigenous group.

While there were significant differences between groups on particular dimensions the similarities of the profiles are quite strong in the context that the very remote Indigenous and remote Indigenous students are indeed *remote*

on many levels from the cultural contexts in which these dimensions may be thought to be most culturally salient. Significant differences demonstrated through the ANOVA analyses indicate differences of degree rather than kind.

This research provides strong evidence that there is a corpus of future goals, motivational values, cognitive and learning strategies that have relevance and heuristic value to educators working with Indigenous communities.

In a series of Australian Research Council (ARC) funded studies with Aboriginal, Navajo, Betsiamite and Yavapai school students, McInerney (2000; McInerney, Hinkley, Dowson, and Van Etten, 1998; McInerney, Roche, McInerney, and Marsh, 1997) explored the nature of the achievement goals for these groups and made comparisons with a number of Western cultural groups. The findings from these studies suggested that the motivational profiles of the diverse groups are more similar than different; and that key variables used to distinguish Western and Indigenous groups do not appear to be salient in the school contexts studied. These results, replicated on a number of occasions with diverse groups, suggest two paradoxes. First, if the motivational profiles of the different groups are so similar why is there a difference in educational outcomes? Second, within any of the Indigenous groups participating there are always some students who achieve well, despite the relatively poor achievement levels of the group as a whole. What is it that the successful Indigenous students 'have' or 'do' that distinguishes them from their unsuccessful peers? These paradoxes suggests that at least five elements need to be considered in order to further our understanding of the motivational dynamics that influence achievement for these disadvantaged groups. *First*, there is a need to more closely examine the nature of the future goals that students' hold; their development over time, and their relationship to day-to-day achievement goals and learning processes. It is plausible that Indigenous students do not do well academically because they have a different perspective on their future and do not perceive the instrumental value of education in the same way as other students. *Second*, the motivational goals examined in earlier studies may have failed to uncover goals that are more salient to Indigenous students; goals that, if reflected in educational settings, might better facilitate learning. *Third*, although Indigenous students endorse learning and self-regulatory strategies in similar ways to the non-Indigenous group they may, nevertheless, have different learning and self-regulatory modes of behaviour or may lack, or fail to use, learning and self-regulatory strategies effectively. *Fourth*, the historical experiences of Indigenous people within assimilationist and often-racist educational institutions may moderate the future goals,

achievement goals and perceived utility of education for Indigenous students. *Fifth*, the quality of education Indigenous students receive may be inferior for a variety of reasons (e.g., isolation, poor teachers, poor facilities, perceived irrelevance of the curriculum) predisposing these students to achieve poorly relative to more advantaged groups.

We addressed the first three of these elements directly in this research. The future goals held by the Indigenous students participating in this study appear to align closely with those held by the non-Indigenous students, although there are some interesting differences in levels of endorsement and rankings. This finding begs the question as to whether there are other future goals that might be more salient to the remote and very remote Indigenous students. Nevertheless, in a qualitative component of this research there were no future goals suggested as more relevant than the eight proposed in our study. A clear understanding, therefore, of the role and utility value of schooling in achieving future goals might be lacking for the Indigenous students.

The set of motivational goals presented to the Indigenous students in this study were based upon Western theorizing, and the levels with which they are endorsed by the Indigenous students, albeit with some differences in emphases, are similar to the non-Indigenous students. This is particularly strongly demonstrated in their endorsement of the GAGOS scales. Again, our qualitative research failed to uncover any motivational goals that may have been more salient to Indigenous students.

While it was speculated that Indigenous students may have different learning and self-regulatory modes of behaviour it is clearly the case from our data that Indigenous students espouse the same set of learning and self-regulatory strategies as the non-Indigenous students. Indeed, there were very few significant differences between the Indigenous and non-Indigenous groups on these important dimensions. A possible explanation for the poor achievement levels of remote Indigenous students may be their failure to use the learning and self-regulatory strategies needed to coordinate their learning effectively.

The fourth possibility, that the historical experiences of Indigenous people within assimilationist and often-racist educational institutions of the past, and communicated to today's children through continuing community disengagement with education, may both moderate the future goals, achievement goals and perceived utility of education for remote Indigenous students, and the fifth possibility, that the quality of education remote Indigenous students receive may be inferior for a variety of reasons

predisposing these students to achieve poorly are issues that, in light of the data we have presented above addressing the first four issues, need very close examination.

It is clear from our research that the very remote Indigenous and remote Indigenous students participating in our study, albeit some with limited educational experiences, have the psychological pre-requisites to function very well within educational environments that are structured to provide them with effective educational opportunities. But issues of the historical context for the importance of education to these communities, as well as a close scrutiny of the quality of educational provision made available, need to be addressed before education will be the path to optimising the future for very remote and remote Indigenous students.

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