

Academic Self-Concept of
Indigenous Children: the
Importance of strong
relationships with
significant others



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Aim

- To understand the importance of significant others and culture on the formulation of Indigenous children's schooling self concept.
- *How do Aboriginal and/or Torres Strait Islander Children's perception of their teachers, peers, parents and Elders/leaders impact on their mathematics and reading self-concept?*

Introduction

Understanding contributing factors to improving Indigenous children's academic ability and success are important to formulate measures to advance their educational development

Self-concept is recognised as useful in facilitating understanding of the development of resilience, academic achievement and social and emotional wellbeing

This research explores the factors associated with academic self-concept of Indigenous children in Australia through analysis of univariate, bivariate and multivariate data of Indigenous children aged 9.5 to 11 years from the Longitudinal Study of Indigenous Children Wave's 7 K Cohort.

Literature review

Several Australian studies have examined the academic self-concept of school-aged children through comparative analyses of Indigenous and non-Indigenous children (Pedersen & Walker, 2000; Purdie & McCrindle, 2004; Yeung et al., 2013; inter alia)

The influence of family, peers, teachers and Elders is likely significant.

Method

Indigenous
Quantitative
Methodologies

Statistical techniques

Statistical techniques

Factor analysis

Bivariate analysis

Multivariate OLS
Regression Analysis

Factor analysis to create dependent variables

- SC likes mathematics
- SC is good at mathematics
- SC learns quickly in mathematics

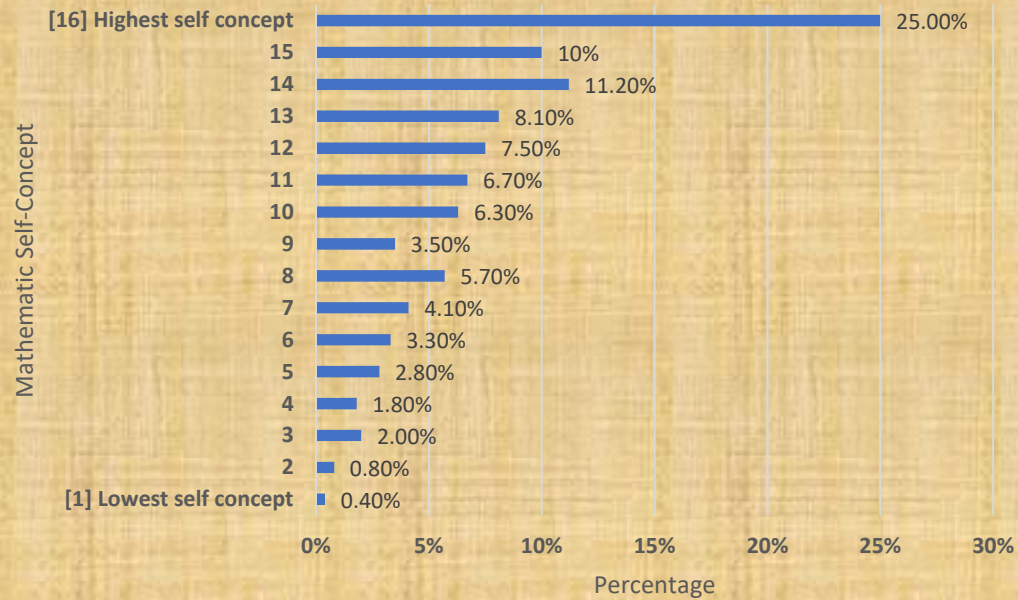
• Mathematics self-concept

- SC likes Reading
- SC is good at Reading
- SC learns quickly in Reading

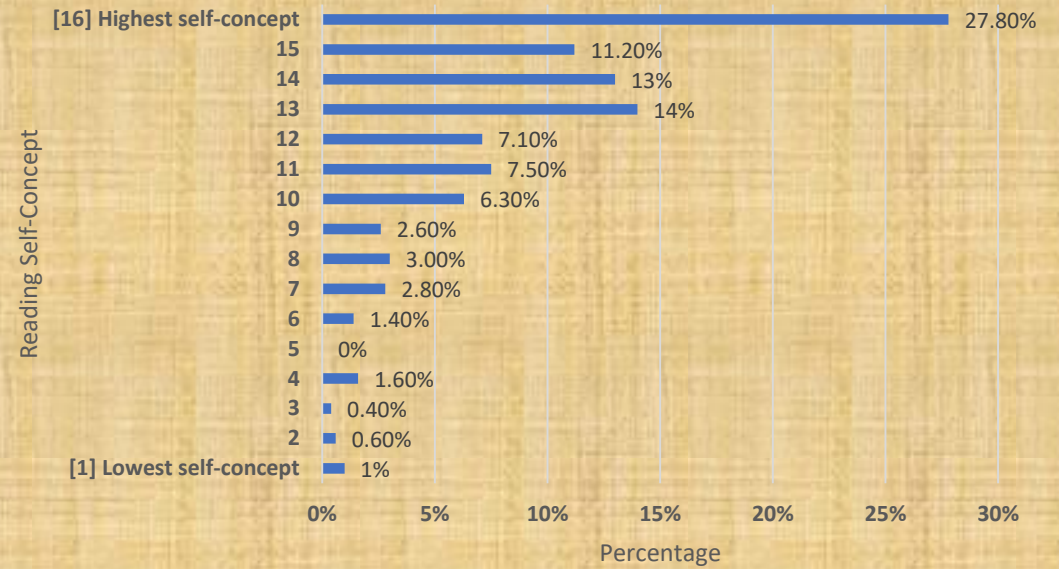
• Reading self-concept

Results

Child's Mathematics Self-Concept (n=508)



Child's Reading Self-Concept (n=508)



Results continued

Table 1 Mathematics self-concept * selected Independent variables

Dependent Variables	SC perception of teacher	SC children are nice to them	believes mum is supportive	SC believes mum is supportive	Time spent with Elders and leaders	School absenteeism
Mathematics Self-concept	.30**	.16**	.23**	.18**		-.05

*Significant at the $p < .05$ level **Significant at the $P < .01$ level.

Table 1 Continued

Dependent Variables	PAT Mathematics score	LORI	SEIFA	Child health	global	Gender
Mathematics Self-concept	-.01	.21**	-.10*	.05		-.05

*Significant at the $p < .05$ level **Significant at the $P < .01$ level.

Table 2 Reading self-concept * selected Independent variables

Dependent Variables	SC perception of teacher	SC children are nice to them	believes mum is supportive	SC believes mum is supportive	Time spent with Elders and leaders	School absenteeism
Reading Self-concept	.26**	.13**	.24**	.19**		-.11*

*Significant at the $p < .05$ level **Significant at the $P < .01$ level.

Table 2 Continued

Dependent Variables	PAT Mathematics score	LORI	SEIFA	Child health	global	Gender
Reading Self-concept	-.08	.22**	-.08	.04		.15

*Significant at the $p < .05$ level **Significant at the $P < .01$ level.

Key Findings

Child's mathematics and reading self-concepts are associated with a number of factors on a bivariate level. For child's mathematics self-concept, child's perception of teacher; child believes children are nice to them; child believes mum is supportive; time spent with Elders and leaders; and level of isolation, all significantly positively associated. For reading self-concept, perception of teacher; child believes children are nice to them; child believes mum is supportive; time spent with Elders and leaders; school attendance and LORI, all significantly associated with higher self-concept.

Results continued

OLS Multivariate regression analysis

*Model 1- mathematics self-concept * selected independent variables*

<i>Summary – AdjR2 =.16, F =14.7, p=<.001</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>t</i>	<i>p</i>
(Constant)	2.207	1.214		1.818	.070
SC's teacher perception**	.208	.045	.209	4.585	.000
SC believes children are nice to them**	.334	.125	.118	2.669	.008
SC believes mum is supportive**	.418	.158	.117	2.648	.008
Days per week SC spends with Elders and leaders**	.266	.094	.130	2.827	.005
LORI**	.780	.209	.180	3.741	.000
SEIFA	-.018	.072	-.012	-.248	.805

*Significant at the .05 level

**Significant at the 0.01 level

Key Findings

Of the six predictor factors that were significant on a bivariate level for mathematics self-concept, five remained significant on a multivariate level. The only variable to not retain significance is socio-economic status (SEIFA).

Results continued

*Model 2 - Reading self-concept * selected independent variables*

Summary – AdjR2 =.13, F =12.1, p=<.001

	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
(Constant)	5.244	.994		5.277	.000
SC's teacher perception**	.165	.038	.202	4.358	.000
SC believes children are nice to them	.144	.104	.062	1.382	.168
SC believes mum is supportive**	.339	.132	.116	2.573	.010
Days per week child spends with Elders and leaders*	.162	.078	.097	2.091	.037
LORI**	.593	.165	.167	3.599	.000
School Absenteeism*	-.298	.135	-.096	-2.214	.027

*Significant at the .05 level

**Significant at the 0.01 level

Key findings

Of the six predictor factors that were significant on a bivariate level for reading self-concept, five remained significant on a multivariate level.

Discussion

The data indicates a significant association between Indigenous children's perceptions of their teacher and their mathematics and reading self-concept

Student's perception of their peers' and the possession of a higher mathematics self-concept

receiving positive feedback from one's primary caregiver is significantly associated with the child's academic self-concept

the cultural practice of spending time with Elders/community leaders is significantly associated with higher self-concept in mathematics and reading

Limitations

Self concept questions were only asked of the K Cohort in Waves 6 and 7.

The study would have benefited from additional factors regarding culture in Wave 7.

Generalisability

Conclusion

- Drawing on data from Wave 7 of LSIC, this research aimed to contribute to understandings of mathematics and reading self-concepts for Indigenous children aged 9.5 to 11 years. Overall we found that the LSIC children had positive levels of self-concept regarding their reading and mathematical abilities. At a bivariate level, results indicate significant correlations between self-concept and a series of factors, and when accounting for variables on a multivariate level, the importance of relationships with teachers, parents, peers and Elders yielded significance for both mathematics and reading self-concept. It can be said that when Indigenous students are supported to be culturally strong, and recognised and supported by teachers, peers and parents, the negative effects of structural inequalities to self-concept can be mitigated and assist them to hone their scholarly abilities and grow up strong.