

#### LITERATURE REVIEW

# UNDERSTANDING THE CAREER ASPIRATIONS OF PRIMARY SCHOOL STUDENTS, WITH A SPECIFIC FOCUS ON FIRST NATIONS STUDENTS

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FEBRUARY 2024



#### **Acknowledgements**

This desktop research report details the findings of a literature review and forms part of a larger ongoing project, *Ten Years On: The Changing Aspirations of Primary School Students*.

This project is funded by the National Careers Institute of the Department of Employment and Workplace Relations and extends on the Aspirations program of research to examine how aspirations have changed over the past decade. The original *Aspirations Longitudinal Study (2012-2015)* was funded by the ARC through a linkage grant with the NSW Department of Education and Training. The *Locating Aspirations Study (2017)* was funded by the Australian Government Department of Education and Training through the Higher Education Participation and Partnerships Programme (HEPPP).

We would like to acknowledge the traditional custodians of the lands within the University of Newcastle's footprint areas: Awabakal, Gadigal, Darkinjung, Biripai, Worimi, Wonnarua, and Eora Nations. We also pay respect to the wisdom of our Elders past and present.

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The correct attribution for this document is: Sincock, K., Fray, L., Patfield, S., Gore, J. & Rubie, C. (2024). *Understanding the career aspirations of primary school students, with a specific focus on First Nations students*. University of Newcastle.

ISBN: 978-0-7259-7971-3

## Understanding the career aspirations of primary school students, with a specific focus on First Nations students

#### Introduction

Both in Australia and internationally, research on the career aspirations of school-aged children predominantly focuses on secondary, rather than primary, students (Gore et al., 2015). Recent studies in the UK, however, have recognised the importance of understanding the nascent career aspirations of primary-aged children (see Chambers et al., 2018; Flouri & Panourgia, 2012; Hughes et al., 2022; Kashefpakdel et al., 2019; Percy & Amegah, 2021). Much of this literature is related to careers in science, technology, engineering and mathematics (STEM) and/or focuses on gender-based career preferences and workforce characteristics (see Archer et al., 2013; Broadley, 2015; Caspi et al., 2023; Wieselmann et al., 2020).

More specifically, research on the career aspirations of First Nations students is limited, even with regards to secondary school-aged students (Laffernis, 2018). In the Australian context, the broader literature on First Nations students tends to explore ways to improve attendance and achievement for Indigenous secondary students – longstanding challenges in the Australian education system (see Behrendt et al., 2012; Gray & Beresford, 2008; Helme, 2007; Yunkaporta & McGinty, 2009) – rather than consider career aspirations. In terms of careers education policy and resources, most publications target mainstream secondary students in general, especially those in Years 10-12, and have not specifically addressed the needs of minority students (Lichtenberg & Smith, 2009).

This literature review begins with a broad overview of what we know about the career aspirations of primary school students. We then consider the literature that has a specific focus on First Nations students. Throughout this literature review, we have used the term 'First Nations' to describe Aboriginal and Torres Strait Islander peoples of Australia, except when the authors of cited papers use the terms 'Indigenous' or 'Aboriginal'.

#### Primary school children and career aspirations

In recent years, the notion that primary school-aged children might already be forming ideas about their career aspirations has become more prevalent in the literature (College & Ambrose, 2021; Davenport & Padwick, 2023; Flouri et al., 2014; So et al., 2022; Wahl & Blackhurst, 2000). While research that investigates the career aspirations of children might not be able to predict the careers these young people will eventually pursue, it can tell us something about how they perceive the

world of adult work (Chambers et al., 2018) and the possible futures available to them. Career education in primary school can therefore provide an opportunity for exploring motivations, pathways and options (Gore et al., 2015) and a foundation for more extensive exploration in the post-primary years (Hughes & Kashefpakdel, 2019).

Studies of the development of children's career aspirations began after the second world war. Eli Ginzberg (1952), an early investigator into the development of career aspirations, claimed that career aspirations before the age of 11 were based on fantasy. However, more recent studies have questioned this hypothesis, observing that children as young as eight (Trice, 1991) and nine years old (Gore et al., 2015; Trice & Greer, 2016) hold career aspirations that align with real careers. The career aspirations of young children are often similar to those they have in later childhood (Trice & Greer, 2016) and into early adulthood (Hughes & Kashefpakdel, 2019).

While these aspirations are often based on gender stereotypes (Gottfredson, 1981), they can sometimes be strongly related to parental occupations (Trice & Greer, 2016). For Gottfredson (1981), gender self-concept occurs between 6 and 8 years, and self-concepts about social class and ability are consolidated around ages 9-13. These self-concepts lead individuals to seek occupations that are "compatible with their images of themselves" (Gottfredson, 1981, p. 546) and some careers are ruled out because they are perceived as inaccessible. More recent theories focus less on the individual personality, but take into account the influence of gender, race, culture, social class, socio-economic status (SES) and disability (Trice & Greer, 2016). By the age of 13, children have begun to rule out, or circumscribe, particular careers based on their perceptions of what is appropriate for their gender, ability or social-economic circumstance, therefore foreclosing their potentialities in those careers (Gutman & Akerman, 2008).

The benefits of career education for primary-aged children are multiple. Career education supports children to broaden their horizons, overcome stereotypical ideas about careers and become more motivated to learn (Chambers et al., 2018; Percy & Amegah, 2021). For example, by the age of ten, many girls have already decided that science might be fun but that a science career is not for them (Archer et al., 2013). Family socio-economic status (SES) can also influence aspirations as children are often exposed to fewer employment options if they come from lower SES circumstances (Gomez, 2014). One British study showed that aspirations of White primary-school aged boys from low-SES families are more likely to be influenced by parents' level of education and income than those from higher SES families (Flouri et al., 2014). Parental aspirations can drive children's "academic, social, and self-regulatory efficacy, raise their aspirations, and promote their scholastic achievements" (Bandura et al., 2001, p. 198). Considering the range of societal influences already impacting children's perceptions of careers, it is important to begin *exploration* of careers at this early stage, even if decision making comes later (Kashefpakdel et al., 2018).

Aspirations occur within a system of ideas produced by a particular cultural context, where what children imagine as possible is shaped by socio-cultural norms (Appadurai, 2004). For some children in disadvantaged communities conceptions about work, cultural stereotypes or even media headlines have the potential to influence their occupational identities (Hughes et al., 2022). For example, in some Indigenous communities "perceptions of what is attainable are limited by external factors that seem to impede Indigenous students imagining (as a basis for shaping and creating) their preferred futures" (Craven, et al., 2003, p13). However, career education can empower children to understand previously unknown opportunities. Learning about careers in primary school can help to prevent issues such as disengagement, diminished aspirations and low cultural capital once students reach secondary education (College & Ambrose, 2021). The formation of career aspirations also has the potential to moderate student behaviour (Flouri & Pangouria, 2012). When primary-school aged students are aware of connections between academic achievement and future endeavours, this can be a motivating factor for academic performance (Hughes & Kashefpakdel, 2019; Knight, 2015). Career education can also improve confidence as students move from primary to secondary school, with young people who have

participated in career education activities showing both improved teamwork and independence and a better understanding of the link between education, qualifications, and careers (Wade et al., 2010).

Career education activities for primary school-aged children can start from the first year of school but need to be appropriate for students' particular age group (College & Ambrose, 2021; Kashefpakdel et al., 2018). Career education elements might be embedded in existing lessons, enabling students to make connections between careers and what they learn in the curriculum without adding to the teacher's workload (College & Ambrose, 2021). External organisations and employers might also provide career education (Kashefpakdel et al., 2018). Engagement with role models from local workplaces can show children how their classroom learning might be applied in the real world and also challenge assumptions about particular occupations (Hughes & Kashefpakdel, 2019; Mann et al., 2018; Percy & Amegah, 2021). Exploration of why students are drawn to particular careers might support students to find careers that have similar 'payoffs' but that they had not considered. For example, girls, who are more likely than boys to pick careers with altruistic characteristics, might not have considered that as an engineer they could help solve problems and support people in the community (Gore et al., 2015).

#### **Career aspirations of First Nations students**

Research on the career aspirations of First Nations primary students is scant. In general, studies focusing on First Nations students are more likely to focus on improving 'success' in education (see Gray & Beresford, 2008; Guenther et al., 2015; Martin et al., 2021; Osbourne & Guenther, 2013) or on aspirations for higher education (see Gore et al., 2017; Hossain et al., 2008; Harwood et al., 2015), rather than on career aspirations.

In the absence of literature with a specific focus on First Nations primary school students, literature on First Nations secondary school students' educational experiences and career aspirations offers a useful starting point. A consultation project aiming to determine the type of career education available to Indigenous young people found that lack of funding, limited staff, discomfort with the school system and remoteness hindered career support (Lichtenberg & Smith, 2009). Research has shown that Indigenous girls show a preference for jobs held by family members (Helme, 2010). One study, based in the Northern Territory, explored the aspirations of young women in a remote Indigenous community and found that lack of choice and role models, and acceptance of the perpetuation of community norms, limited the young women's capacity to choose novel careers (Senior & Chenhall, 2010). In another study in the East Kimberley barriers such as low literacy, lack of transport and appropriate housing, racism and lack of culturally appropriate opportunities impeded educational and employment aspirations (Walker et al., 2008). For Indigenous children living in urban areas, sportspeople are often the only visible role models of 'success' (Wallace, 2023) with one study indicating that Indigenous children aspire to sport related careers above any other (Eather et al., 2020).

The 2012 Review of higher education access and outcomes for Aboriginal and Torres Strait Islander people (known colloquially as the Behrendt Report) found that although many Aboriginal and Torres Strait Islander people aspired to higher education, the proportion of such aspirants was generally lower than in the general population (Behrendt et al., 2012). A 2001 program to develop Aboriginal students' career aspirations was based on similar assumptions (Lowe & Tassone, 2001),

as was an earlier research study aiming to foreground better service delivery of career education to Indigenous students (Crump, 2001). However, more recent studies unsettle this finding, asserting that Indigenous students have similar aspirations for higher education as non-Indigenous students (Gore et al., 2017; Bond et al., 2020).

The Behrendt report attributed the apparent 'lower' aspirations for higher education of Aboriginal and Torres Strait Islander students to them being taught to have negative views of their academic ability and therefore having reduced confidence in their capability (Behrendt et al., 2012). Low achievement and teachers' low expectations of Indigenous students are frequently referred to in the literature (Behrendt et al., 2012; Craven & Magson, 2014; Gray & Beresford, 2008; James et al., 2008; Martin et al., 2021). Public discourse and historical conditioning have contributed to deficit accounts of Indigenous achievement (Sarra et al., 2018). In particular, Chesters et al. (2009) assert that a "failure discourse shapes the school and tertiary transition experience for the majority of Indigenous students, regardless of their capabilities and aspirations" (p. 26). One study found that teachers' low expectations of Indigenous students were "drummed in," but these teachers could not pinpoint the source of such attitudes and believed they might be "communicated informally through the curriculum, the school design and the organisational structure" (Yunkaporta & McGinty, 2009, p. 69, 70). Such deficit attitudes become a social justice issue as the existence and limited understanding of teachers' low expectations of First Nations students perpetuate inequity in education and employment (Arthur, 2019).

Bond et al. (2020) suggest that to counter a deficit narrative, it is necessary to "return to the philosophical ideals of education as emancipatory, and Indigeneity as capable" (p. 160). This means moving away from the 'close the gap' mentality that has been pervasive in the Australian education system and towards the employment of Indigenous intellectual sovereignty to effect change (Bond et al., 2020). Many in First Nations communities remain confident in the capability of their children. In one study, Indigenous mothers in a Western Australian community were found to have high expectations for their children, but some perceived the education system to be inappropriate and socially exclusionary (Lette et al., 2009). First Nations mothers have been shown to have a significant positive influence on their children's aspirations for and completion of undergraduate degrees (Santoro, 2010). In a more recent study, parents of Indigenous students maintained high expectations of their children throughout their education, even as teachers' expectations declined over the course of their students' education (Peacock et al., 2020). This finding suggests that barriers to aspiration are rooted in established Westernised systems rather than in the attitudes of First Nations people themselves. When the education system understands and values Indigenous perspectives, there is greater potential for engagement and achievement of Indigenous students (Lette et al., 2009).

### **Engaging First Nations primary school students** in career aspirations

In this light, all students, including those who are Indigenous, have a right to effective career education and support, which should begin in primary school (Chesters et al., 2009). However, the nature of that career education must be carefully considered. If it is exactly the same as that provided for non-Indigenous students, it risks perpetuating Indigenous disadvantage as cultural differences are neglected (Chesters et al., 2009). From a social justice perspective, it is essential

that career education meets the needs of diverse populations and is culturally responsive (Yates & Bruce, 2017). The diversity and heterogeneity of First Nations cultures should be kept in mind (Laffernis, 2018), with location-specific information sought from the local community (Crump, 2001; Lichtenberg & Smith, 2009). Because the aspirations of young people are formed in their social context, the possibilities available to them are modified by their experiences and environment (Gutman & Akerman, 2008). It is imperative, therefore, to "consider the nuances that exist from the crossover of different aspects of identity including gender, social class, ethnicity, religion, immigration, disability status, and sexual orientation that create individual unique experiences" (Gutman & Akerman, 2008, p. v). For example, Indigenous youth come from a variety of social backgrounds (Patfield et al., 2022), and Indigenous girls' educational and career aspirations differ from those of Indigenous boys (Sikora & Biddle, 2015).

In many First Nations communities "local people retain epistemologies, ontologies, axiologies and cosmologies that differ vastly from the Western neo-liberal norms that inform mainstream education and the broader community" (Osborne & Guenther, 2013, p. 90). In some communities, this renders Indigenous and Western education systems irreconcilable (Nakata, 2007). First Nations experiences are complex and multifarious, meaning that traditional Western trajectories are not always appropriate (Nelson & Hay, 2010). While for some Indigenous youth, aspirations for higher education and professional careers are a normalised pathway (Patfield et al., 2022), this is not true for all. Mainstream assumptions based on the logic that "parents need to get their children to school, teachers need to get the students to learn, and young people emerging from the education conveyor belt need to get themselves a job," might sometimes be inappropriate (Osbourne & Guenther, 2013, p. 93). The nature of any intervention must be guided by the belief system and attitudes of a particular culture towards career pathways (Kharkongor & Albert, 2014).

Career education for First Nations students of any age must be culturally relevant (Austin et al., 2020). In some communities, there is an absence of conceptual support for notions of career and success. Terms such as 'aspiration' and 'success' do not have equivalents in some Indigenous languages (Osbourne & Gunther, 2013), and some cultural groups do not have a word for 'career' (Kharkongor & Albert, 2014). In the Gamilaraay worldview, for example, outcomes are inseparable from a journey or process (Yunkaporta & McGinty, 2009), rendering measurable markers of success in a Western worldview insufficient or irrelevant. Standardised testing (such as progressive achievement tests) might not capture the "true determinants of education within an Indigenous framework" (Anderson et al., 2017, p. 278). Narrow conceptualisations of aspiration which valorise academic success and university degrees ignore the structural factors that might impede young Indigenous Australians (Harwood et al., 2015). Guenther et al. (2015) call for alternative indicators of success and narratives of aspiration that are meaningful in local community contexts.

Delivery of career education for First Nations students is likely to be most effective when provided by culturally appropriate role models and mentors (Austin et al., 2020) and, if possible, by a local Indigenous person (Kharkongor & Albert, 2014). For non-Indigenous practitioners, cultural competence must be prioritised (Kharkongor & Albert, 2014; Laffernis, 2018; Lichtenberg & Smith, 2009). Including First nations parents, families and communities in career education activities can contribute to their success (Curtis et al., 2012; Helme, 2010; Kharkongor & Albert, 2014; Kinnane et al., 2014; Lowe & Tassone, 2001). Aboriginal Education Workers (AEWs) can also facilitate the creation of culturally safe schools and appropriate pedagogy that support Indigenous children (Peacock & Prehn, 2019). Inclusion of culture and leadership in one career education program was seen as important in increasing engagement in secondary school (Kinnane et al., 2014).

Data from the Longitudinal Study of Indigenous Children (LSIC) found that First Nations children who feel comfortable with their Indigeneity are more likely to aspire to complete secondary school (Peacock & Guerzoni, 2022). If positive Aboriginal identity self-concepts were maximised by the education system, alienation and lack of engagement from that system could be tackled, with

improved achievement a potential outcome (Craven et al., 2014). Confidence in their Indigeneity supports children to develop competence and to formulate and pursue aspirations (Peacock & Guerzoni, 2022). Important to note is that Indigenous identity is not a singular entity. The perpetuation of a pan-Aboriginal identity present within, for example, the NSW education system, is detrimental to children's self-concept and has the potential to generate further disadvantage (Wallace, 2023). For some, the failure of education systems to maximise Indigenous children's self-concept of their Indigeneity and academic ability is at the root of all "problem[s] plaguing Aboriginal children – alienation from school, high rates of absenteeism, non-enjoyment of school, significant under-achievement, reduced educational and career aspirations, youth depression and suicide, conceptions about employment prospects and inability to secure rewarding, productive careers" (Craven & Parente, 2003 in Craven & Magson, 2014, p. 29).

Despite clear indications from the literature that career education for First Nations students should be culturally relevant and delivered by culturally competent practitioners, Federal Government policy fails to acknowledge this. For instance, in 2010, the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) produced their *Australian Blueprint for Career Development*, a framework for the delivery of career education for young people and adults. However, despite acknowledging that personal and cultural values influence career opportunities, the document provides no specialised guidance for First Nations people. In 2013, the Department of Employment, Education and Workplace Relations released the *National Career Development Strategy*, which again offered no guidance specific to First Nations people. And in 2019, the Department of Education and Training (DET) produced *Future Ready: A Student Focused National Career Education Strategy*. One of its six stated objectives was to meet the needs of all students including enabling possibilities for Aboriginal and Torres Strait Islander students (DET, 2019), yet no detail was provided of how this might be achieved.

#### **Conclusion/Recommendations**

This literature review highlights the lack of attention that has been paid to the specific career education needs of First Nations primary school students. Our overview of the career aspirations of primary school children indicates: the importance of beginning career education early; adopting a social justice approach that supports the development of students' First Nations identities and recognises their capabilities; avoiding the essentialisation of First Nations identity; creating career education that is not prescriptive; and, capitalising on the capacity of First Nations family and community, thereby ensuring career education is culturally appropriate and considers local contexts and needs.

#### References

- Anderson, I., Lyons, J. G, Luke, J. N. & Reich, H. S. (2017). Health determinants and educational outcomes for Indigenous children. In M. Walter, K. L. Martin & G. Bodkin-Andrews (Eds.), *Indigenous Children Growing up Strong* (pp. 259-285). Palgrave Macmillan.
- Appadurai, A. (2004). The capacity to aspire: culture and the terms of recognition. In M. Walton & V. Rao (Eds.), *Culture and public action: A cross-disciplinary dialogue on development policy* (pp. 59-84). World Bank Publications.
- Archer, L., DeWitt, J., Osborne, J., Dillon, J. and Wong, B. (2013). "Not girly, not sexy, not glamourous": primary school girls' and parents' constructions of science aspirations. *Journal of Pedagogy, Culture and Society, 21*(1), 171–194. http://dx.doi.org/10.1080/14681366.2012.748676
- Arthur, N. (2019). Career development theory and practice: A culture-infused perspective. In N. Arthur (Ed.), *Contemporary Theories of Career Development* (pp. 180-194). Routledge.
- Austin, K., O'Shea, S, Groves, O. & Lamanna, J. (2020). Career development learning for students from low socioeconomic status (LSES) backgrounds. University of Wollongong. <u>Literature review on CDL FINAL (uow.edu.au)</u>
- Bandura, A., Barbaranelli, C., Caprara, G. V. & Pastorelli, C. (2001). Self-Efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, 72(1), 187–206.
- Behrendt, L., Larkin, S., Griew, R. & Kelly, P. (2012). Review of higher education access and outcomes for Aboriginal and Torres Strait Islander people: Final report. <a href="https://nla.gov.au/nla.obj-2817044867/view">https://nla.gov.au/nla.obj-2817044867/view</a>
- Bond, C., Brough, M., Mukandi, B., Springer, S., Askew, D. & Stajic, J. (2020). Looking forward looking black: making the case for a radical rethink of strategies for success in Indigenous higher education. *The Australian Journal of Indigenous Education, 49*, 153-162. <a href="https://doi.org/10.1017/jie.2020.13">https://doi.org/10.1017/jie.2020.13</a>
- Broadley, K. (2015). Entrenched gendered pathways in science, technology, engineering and mathematics: engaging girls through collaborative career development. *Australian Journal of Career Development*, 24(1), 27-38. https://doi.org/10.1177/1038416214559548
- Caspi, A., Gorsky, P., Nitzani-Hendel, R. & Shildhouse, B. (2023). STEM-oriented primary school children: participation in informal STEM programmes and career aspirations. *International Journal of Science Education*, *45*(11), 923-945. https://doi.org/10.1080/09500693.2023.2177977
- Chambers, N., Kashefpakdel, E. T., Rehill, J. & Percy, C. (2018). *Drawing the Future*. Education and Employers. https://www.educationandemployers.org/drawing-the-future/
- Chesters, J., Drysdale, M., Ellender, I. Faulkner, S., Turnbull, L., Kelly, H., Robinson, A. & Chambers, H. (2009). Footprints forwards blocked by a failure discourse: Issues in

- providing advice about medicine and other health science careers to Indigenous secondary school students. *Australian Journal of Career Development*, *18*(1), 26-35. <a href="https://doi.org/10.1177/103841620901800105">https://doi.org/10.1177/103841620901800105</a>
- College, J. & Ambrose, J. (2021). Career Development Framework: Handbook for primary schools.

  Career Development Institute (CDI).

  <a href="https://cdi.uat.grm.digital/CDI/media/Write/Framework/CDI">https://cdi.uat.grm.digital/CDI/media/Write/Framework/CDI</a> 124-Framework
  Handbook for schools-v5.pdf
- Craven, R. & Magson, N. (2014). Seeding success: Aboriginal primary students. *Scan*, 33(1), 27-40.
- Craven, R., Parente, A. & Marsh, H. W. (2003, November 29-December 3). *Disentangling Indigenous students' aspirations: A critical analysis elucidating dreams and realities* [Conference presentation]. NZARE AARE Conference, Auckland, New Zealand. https://www.aare.edu.au/data/publications/2003/par03763.pdf
- Crump, D. (2001). Issues in Indigenous Educational and Vocational Counselling. *Australian Journal of Career Development*, 10(3), 20-24.
- Curtis, E., Wikaire, E., Stokes, K. & Reid, Papaarangi. (2012). Addressing indigenous health workforce inequities: A literature review exploring 'best' practice for recruitment into tertiary health programmes. *International Journal for Equity in Health, 11*(13), 1-15. <a href="https://doi.org/10.1186/1475-9276-11-13">https://doi.org/10.1186/1475-9276-11-13</a>
- Davenport, C. & Padwick, A. (2023). Career-related learning in primary schools: A snapshot of current practice. Northumbria University. https://doi.org/10.25398/rd.northumbria.23309255.v1
- Department of Education and Training. (2019). Future Ready: A student focused National Career Education Strategy. Australian Government. <a href="https://www.education.gov.au/data-and-research-schooling/resources/future-ready-student-focused-national-career-education-strategy">https://www.education.gov.au/data-and-research-schooling/resources/future-ready-student-focused-national-career-education-strategy</a>
- Department of Education, Employment and Workplace Relations. (2013). *National Career Development Strategy*. Australian Government. National Career Development Strategy Department of Education, Australian Government.
- Eather, N., Fray, L. & Gore, J. M. (2020). Who wants to be a sportsperson? Student aspirations for sporting careers. *Sport, Education and Society, 25*(9), 1072-1085. https://doi.org/10.1080/13573322.2019.1679104
- Flouri, E., & Panourgia, C. (2012). Do primary school children's career aspirations matter? The relationship between family poverty, career aspirations, and emotional and behavioural problems. Institute of Education, University of London. <a href="https://cls.ucl.ac.uk/wp-content/uploads/2017/04/CLS-WP-20125-.pdf">https://cls.ucl.ac.uk/wp-content/uploads/2017/04/CLS-WP-20125-.pdf</a>
- Flouri, E., Tsivrikos, D., Akhtar, R. & Midouhas, E. (2014). Neighbourhood, school and family determinants of children's aspirations in primary school. *Journal of Vocational Behavior, 87*, 71-79. https://doi.org/10.1016/j.jvb.2014.12.006
- Ginzberg, E. (1952). Toward a theory of occupational choice. Occupations, 30, 491-494.

- Gomez, K, (2014). Career aspirations and perceptions of self-efficacy of fourth- and fifth-grade students of economic disadvantage. [Doctoral Dissertation, Lehigh University]. Semantic Scholar. <a href="https://www.semanticscholar.org/paper/Career-Aspirations-and-Perceptions-of-Self-Efficacy-G%C3%B3mez/1a379d2fedbc3a89c78ee5650a7677951ece4648">https://www.semanticscholar.org/paper/Career-Aspirations-and-Perceptions-of-Self-Efficacy-G%C3%B3mez/1a379d2fedbc3a89c78ee5650a7677951ece4648</a>
- Gottfredson, L. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology, 28*(6), 545-579.
- Gore, J., Holmes, K., Smith, M., Southgate, E. & Albright, J. (2015). Socioeconomic status and the career aspirations of Australian school students: Testing enduring assumptions. *Australian Educational Researcher*, 42, 155-177. https://doi.org/10.1007/s13384-015-0172-5
- Gore, J., Patfield, S., Holmes, K., Smith, M., Lloyd, A., Grupetta, M., Weaver, N. & Fray, L. (2017). When higher education is possible but not desirable: Widening participation and the aspirations of Australian Indigenous school students. *Australian Journal of Education*, 61(2), 164-183. <a href="https://doi.org/10.1177/0004944117710841">https://doi.org/10.1177/0004944117710841</a>
- Gray, J & Beresford, Q. (2008). A 'formidable challenge': Australia's quest for equity in Indigenous education. *Australian Journal of Education*, *52*(2), 197–223.
- Guenther, J, Disbray, S. & Osborne, S. (2015). Building on 'Red Dirt' Perspectives: What Counts as Important for Remote Education? *The Australian Journal of Indigenous Education, 44*(2), 194-206. https://doi.org/10.1017/jie.2015.20
- Gutman, L. M. & Akerman, R. (2008). *Determinants of aspirations*. Institute of Education, University of London. <a href="https://discovery.ucl.ac.uk/id/eprint/1541614/1/Gutman2008Determinants.pdf">https://discovery.ucl.ac.uk/id/eprint/1541614/1/Gutman2008Determinants.pdf</a>
- Harwood, V., McMahon, S., O'Shea, S., Bodkin-Andrews, G., & Priestly, A. (2015). Recognising aspiration: The AIME program's effectiveness in inspiring Indigenous young people's participation in schooling and opportunities for further education and employment. *Australian Educational Researcher, 42*, 217–236. https://doi.org/10.1007/s13384-015-0174-3
- Helme, S. (2010). Career decision making: What matters to Indigenous Australians? *Australian Journal of Career Development*, 19(3), 67-74. https://doi.org/10.1177/103841621001900309
- Helme, S. (2007). Education inequality and Indigenous Australians: Perspectives and possibilities. In R. Teese, S. Lamb, & M. Duru-Bellat (Eds.), *International studies in educational inequality, theory and policy* (pp. 257-277). Springer.
- Hossain, D., Gorman, D., Williams-Mozely, J., & Garvey, D. (2008). Bridging the gap: Identifying needs and aspirations of Indigenous students to facilitate their entry into university. *The Australian Journal of Indigenous Education*, *37*, 9–17.
- Hughes, D. & Kashefpakdel, E. (2019). Innovation in Career-Related Learning: Starting Early in Primary Schools. In J. G. Maree (Ed.), *Handbook of innovative career counselling* (pp. 213-230). Springer.
- Hughes, D., Shakoor, I., Hampshire, K & Croll, L. (2022). Career-related learning in primary schools: a city collaborative approach in England. *British Journal of Guidance & Counselling*, *50*(3), 443-461. <a href="https://doi.org/10.1080/03069885.2021.1998363">https://doi.org/10.1080/03069885.2021.1998363</a>

- James, R., Bexley, E., Anderson, A., Devlin, M., Garnett, R., Marginson, S. & Maxwell, L. (2008). Participation and equity: a review of the participation in higher education of people from low socioeconomic backgrounds and Indigenous people. Deakin University. Participation and equity: a review of the participation in higher education of people from low socioeconomic backgrounds and Indigenous people (deakin.edu.au)
- Kashefpakdel, E., Rehill, J. & Hughes, D. (2018). What works? Career-related learning in primary schools. The Careers & Enterprise Company. <a href="https://www.educationandemployers.org/wp-content/uploads/2018/12/1145">https://www.educationandemployers.org/wp-content/uploads/2018/12/1145</a> what works primary v6 digital9.pdf
- Kashefpakdel, E., Rehill, J. & Hughes, D. (2019). Career-related learning in primary: The role of primary teachers and schools in preparing children for the future. Education and Employers. <a href="https://www.educationandemployers.org/wp-content/uploads/2019/01/EdEmp">https://www.educationandemployers.org/wp-content/uploads/2019/01/EdEmp</a> CareerPrimary-report Jan2019 v5 INDV.pdf
- Kharkongor, G. C. & Albert, S. (2014). Career counseling among Indigenous peoples. In G. Arulmani, A. J. Bakshi, F. T. L. Leong & A. G. Watts (Eds.), Handbook of career development: International perspectives (pp. 539-554). Springer.
- Kinnane, S., Wilks, J., Wilson, K, Hughes, T & Thomas, S. (2014). 'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education. University of Notre Dame. \*SI11-2138-OLT-Final-Report-FINAL-Web.pdf (notredame.edu.au)
- Knight, J. L. (2015). Preparing elementary school counselors to promote career development: Recommendations for school counselor education programs. *Journal of Career Development*, 42(2), 75-85. https://doi.org/10.1177/0894845314533745
- Laffernis, F. (2018). Churchill Fellowship to identify best practice for university careers services to support Indigenous students. Churchill Trust. <a href="https://www.churchilltrust.com.au/fellow/farhana-sue-laffernis-nsw-2018/">https://www.churchilltrust.com.au/fellow/farhana-sue-laffernis-nsw-2018/</a>
- Lette, H., D'Espaignet, E. T., Slack-Smith, L., Hunt, K. & Nannup, J. (2009). Indigenous mothers' aspirations for their children in Perth, Western Australia: The value of education and schooling. *The Australian Journal of Indigenous Education*, *38*, 65-73.
- Lichtenberg, A. & Smith, H. (2009). Career development for young Indigenous People: A project summary. *Australian Journal of Career Development, 18*(2), 45-55. <a href="https://doi.org/10.1177/103841620901800207">https://doi.org/10.1177/103841620901800207</a>
- Lowe, K. & Tassone, J. (2001, December 2-6). Aboriginal career aspirations program: School and community career education. A report and discussion on a NSW Board of Studies project [Conference Presentation]. Annual Conference of the AARE, Perth, Australia. <a href="https://www.aare.edu.au/data/publications/2001/low01351.pdf">https://www.aare.edu.au/data/publications/2001/low01351.pdf</a>
- Mann, A., Rehill, J. & Kashefpakdel, E. T. (2018). *Employer engagement in education: Insights from international evidence for effective practice and future research*. Education and Employers. <u>Employer engagement in education | EEF (educationendowmentfoundation.org.uk)</u>
- Martin, J. M. Ginns, P., Anderson, M., Gibson, R. Bishop, M. (2021). Motivation and engagement among Indigenous (Aboriginal Australian) and non-Indigenous students. *Educational Psychology*, *41*(4), 424-445. <a href="https://doi.org/10.1080/01443410.2021.1879994">https://doi.org/10.1080/01443410.2021.1879994</a>

- Ministerial Council for Education, Early Childhood Development and Youth Affairs, (2010). Australian Blueprint for Career Development. Miles Morgan Australia. http://hdl.voced.edu.au/10707/219471.
- Nakata, M. (2007). The Cultural Interface. *The Australian Journal of Indigenous Education*, 36, 7-14. https://search.informit.org/doi/pdf/10.3316/informit.903053619367156
- Nelson, A. & Hay, P. (2010). "I don't want to grow up and not be smart": Urban Indigenous young people's perceptions of school. *The Australian Journal of Indigenous Education, 39*, 52-64. https://search.informit.org/doi/pdf/10.3316/informit.633615169249111
- Osbourne, S & Guenther, J. (2013). Red Dirt Thinking on Aspiration and Success. *The Australian Journal of Indigenous Education*, 42(2), 88-99. https://search.informit.org/doi/pdf/10.3316/informit.783351300215201
- Patfield, S., Gore, J., Fray, L. & Gruppetta, M. (2022). The untold story of middle-class Indigenous Australian school students who aspire to university. *Critical Studies in Education*, *63*(1), 80-95. https://doi.org/10.1080/17508487.2019.1572022
- Peacock, H. & Guerzoni, M. A. (2022). Kids feeling good about being Indigenous at school and its link to heightened educational aspirations. In M. Walter (Ed.), *The Oxford handbook of Indigenous sociology* (pp. 293-309). Oxford University Press.
- Peacock, H. & Prehn, J. (2019). The importance of Aboriginal education workers for decolonising and promoting culture in primary schools: an analysis of the longitudinal study of Indigenous children (LSIC). *The Australian Journal of Indigenous Education*, *50*, 196-202. https://doi.org/ 10.1017/jie.2019.13
- Peacock, H., Prehn, J., Guerzoni, M.A., Aitken, W & Anderson, C. (2020). Upholding heightened expectations of Indigenous children? Parents do, teachers do not. *The Australian Journal of Indigenous Education*, 50, 331-339. https://doi.org/10.1017/jie.2020.28
- Percy, C. & Amegah, A. (2021). *Starting Early: Building the foundations for success*. Education and Employers. https://www.educationandemployers.org/research/startingearly/
- Santoro, N. (2010). 'If it weren't for my mum...': the influence of Australian Indigenous mothers on their children's aspirations to teach. *Gender and Education*, 22(4), 419–429. https://doi.org/10.1080/09540250903289915
- Sarra, C., Spillman, D., Jackson, C., Davis, J. & Bray, J. (2018). High-Expectations Relationships: A Foundation for Enacting High Expectations in all Australian Schools. *The Australian Journal of Indigenous Education*, 49(1), 32-45. https://doi.org/10.1017/jie.2018.10
- Sikora, J. & Biddle, N. (2015). How gendered is ambition? Educational and occupational plans of Indigenous youth in Australia. *International Journal of Educational Development, 42*, 1-13. https://doi.org/10.1016/j.ijedudev.2015.02.011
- So, W. W. M., Chen, Y., Chow, S. C. F. (2020). Primary school students' interests in STEM careers: how conceptions of STEM professionals and gender moderation influence. *International Journal of Technology and Design Education*, 32, 33-53. <a href="https://doi.org/10.1007/s10798-020-09599-6">https://doi.org/10.1007/s10798-020-09599-6</a>
- Trice, A. D. (1991). Stability of children's career aspirations. *The Journal of Genetic Psychology*, 152(1), 137-139. https://doi.org/10.1080/00221325.1991.9914684

- Trice, A. D. & Greer, H. W. (2016). <u>Theories of career development in childhood and early adolescence</u>. In N. Arthur & M. McMahon (Eds.), *Career exploration and development in childhood: Perspectives from theory, practice and research* (pp. 11-23). Routledge.
- Wade, P., Bergeron, C., White, K., Teeman, D., Sims, D. & Mehta, P. (2010). Key Stage 2 career-related learning pathfinder evaluation. Department for Education.
  <a href="https://assets.publishing.service.gov.uk/media/5a7b5a6ded915d429748e817/DFE-RR116.pdf">https://assets.publishing.service.gov.uk/media/5a7b5a6ded915d429748e817/DFE-RR116.pdf</a>
- Wahl, K. H. & Blackhurst, A. (2000). Factors affecting the occupational and educational aspirations of children and adolescents, *Professional School Counseling*, *3*(5), 367-374.
- Walker, R., Scrine, C. & Shepherd, C. (2008). *Job aspirations of young Indigenous people in the East Kimberley: Making new tracks*. Kulunga Research Network. <a href="https://wunan.org.au/wp-content/uploads/2020/07/job aspirations">https://wunan.org.au/wp-content/uploads/2020/07/job aspirations 2008.pdf</a>
- Wallace, K. (2023). An investigation into the alignment of policy, practice, and Aboriginal community involvement to support urban Aboriginal children's identities in an NSW primary school. [Doctoral dissertation, University of Newcastle]. Nova. <a href="https://nova.newcastle.edu.au/vital/access/manager/Repository/uon:50538">https://nova.newcastle.edu.au/vital/access/manager/Repository/uon:50538</a>
- Wieselmann, J. R., Roehrig, G. H. & Kim, J.N. (2020). Who succeeds in STEM? Elementary girls' attitudes and beliefs about self and STEM. *School Science and Mathematics*, 120, 297–308. https://doi.org/10.1111/ssm.12407
- Yates, A. & Bruce, M. (2017). The future of career education in New Zealand secondary schools: A review of the literature. *Australian Journal of Career Development*, 26(2), 62-70. <a href="https://doi.org/10.1177/1038416217700421">https://doi.org/10.1177/1038416217700421</a>
- Yunkaporta, T & McGinty, S. (2009). Reclaiming Aboriginal Knowledge at the Cultural Interface. *The Australian Educational Researcher*, *36*(2), 55-72.