

RISE Paper Series

PAPER 2: INTERVIEWS & DIAGRAMMING

How do Indigenous high school students, their parents/carers and Aurora alumni define ‘success’ in education? Reporting on the results of qualitative interviews and participatory diagramming.



The Aurora Education Foundation is an Indigenous organisation that supports Aboriginal and Torres Strait Islander students to realise their full education and employment potential – whether it is completing Year 12 or achieving a PhD from Oxford.

Through our interconnected programs and pathways, we walk with students from high school through to university and the workplace, redefining Indigenous educational and employment success.

ACKNOWLEDGEMENTS:

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AUTHORS:

Jarrold Hughes, Claudia Turnbull, Jesse King and Leila Smith

Special acknowledgments:

Corinne Walsh and Mandy Yap



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Contents

Executive summary	4
1. Introduction	6
2. Methodology	7
DATA COLLECTION	7
INDIGENOUS METHODOLOGY	9
DATA ANALYSIS	10
3. Results	11
3.1 QUALITATIVE INTERVIEWS: OVERVIEW	11
3.2 RELATIONALITY	11
Relation to self	13
Relation to family and community	15
Relation to the education system	17
3.3 STUDENT PARTICIPATORY DIAGRAMS	20
Frequency	20
Indigenous and mainstream worlds	20
Salience	21
Connections between concepts	22
4. Discussion	24
DISPARITIES BETWEEN LITERATURE AND POLICY AND INDIGENOUS DEFINITIONS OF 'SUCCESS'	24
IMPLICATIONS FOR INDIGENOUS EDUCATION POLICY REFORM	25
5. Opportunities for the RISE Project	26
6. Limitations	27
Appendix	28
References	36

Executive summary

THE REDEFINING INDIGENOUS SUCCESS IN EDUCATION PROJECT

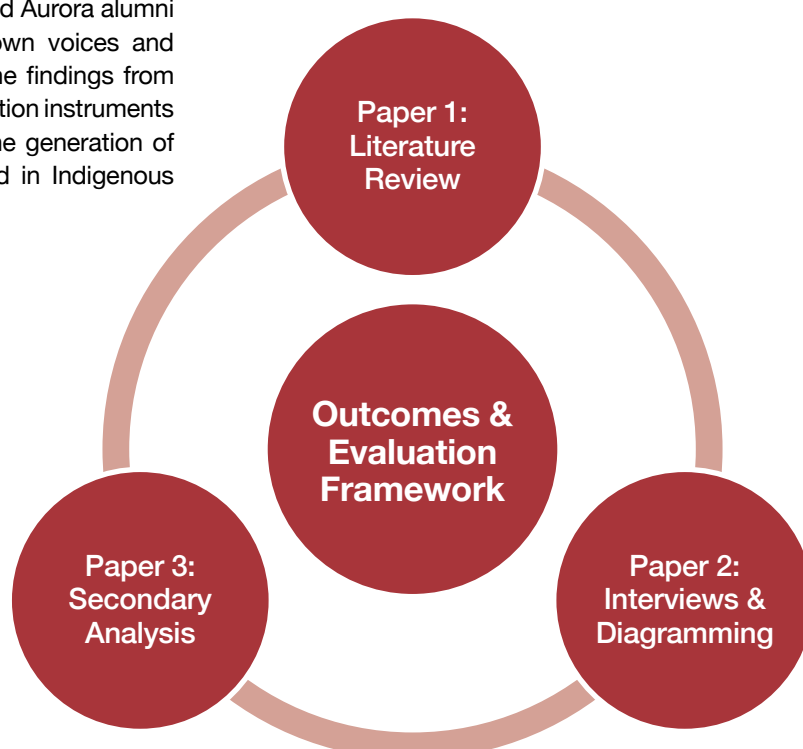
The Redefining Indigenous Success in Education (RISE) Project is a 5-year Aboriginal and Torres Strait Islander education initiative delivered by the Aurora Education Foundation (Aurora), funded by the Paul Ramsay Foundation, and developed in partnership with the Centre for Social Research Methods at the Australian National University (ANU). The RISE Project is: (1) a large-sample, longitudinal and quasi-experimental evaluation of three Aurora high school program models; (2) grounded in Indigenous student and family definitions of ‘success’ in education; and (3) overseen by an Indigenous Data Governance framework.

This is the second paper in the RISE Paper Series and should be read in conjunction with the first paper – a **literature review** on how Indigenous high school education outcomes have been conceptualised and operationalised in Australia. This literature review identified a critical lack of research that directly engages with Indigenous students and their families on their views, needs and aspirations relating to educational ‘success’, particularly in the urban context. This paper seeks to address this gap by investigating how Indigenous high school students, their parents/carers, and Aurora alumni define educational ‘success’ in their own voices and according to their lived experiences. The findings from this paper will inform the design of evaluation instruments for the RISE Project and will support the generation of a large dataset for evaluation grounded in Indigenous perspectives on ‘success’ in education.

METHODOLOGY

This research is based on two data collection processes. First, semi-structured qualitative interviews were undertaken online with a sample of 10 Indigenous Aurora High School Program (HSP) participants from Western Sydney in Years 10 and 11, five parents/carers, and five alumni of the Aurora Study Tour and Scholarships Program. Second, a participatory diagramming exercise was undertaken with students only and immediately followed the student interviews.

The research methods used in this paper are grounded in Indigenous methodologies. Both the RISE Project and this research paper have been initiated and delivered by Indigenous staff members of Aurora, an Indigenous organisation, and privilege Indigenous standpoint at every opportunity (Walter & Andersen 2013). The RISE Project is motivated by the political aspirations of Indigenous peoples for the expansion of Indigenous rights and the recognition of Indigenous self-determination in education (see Smith 1999). The research methods are conversational and participatory and have been chosen on the basis that they can enable forms of exchange grounded in Indigenous cultural practice (Kovach 2010).



SUMMARY OF FINDINGS

The findings of this research paint a complex picture of Indigenous perceptions of educational ‘success’ that stand in contrast to the narrow focus on statistical parity across a limited set of outcomes in existing Indigenous education policy, discussed in our literature review.

The analysis of qualitative interviews borrows from the Indigenous methodological concept of relationality (Kovach 2010) to categorise participant definitions of educational ‘success’ under three interdependent themes:

1. Under the theme of ‘relation to self’, participants emphasised the importance of education in supporting social and emotional wellbeing and achieving personal goals. Alumni narratives drew a strong connection between the formation of a strong cultural identity and the ability to survive and thrive in the formal education system.
2. Under the theme of ‘relation to family and community’, participants described the importance of social support networks in supporting students to manage the demands of formal education. Participants emphasised the reciprocal nature of these networks by associating ‘success’ in education with ‘giving back’ to family and community through pursuing careers that could generate social goods, mentorship and making family proud. Participants also emphasised the importance of cultural learning outside the formal education system, including connecting with Indigenous family members and peers, as a way of learning about themselves, forming a strong Indigenous identity and developing confidence.
3. Under the theme of ‘relation to the education system’, participant narratives revealed lived experience and deep awareness of the ways in which the education system institutionally restricts opportunities for Indigenous students. Several participants referred to limited educational opportunities that had been afforded to family members, and several alumni described the experience of not feeling valued or recognised in their Indigenous identity at high school. At the same time, participants recognised participation in high school as important in accessing future opportunities and described ‘success’ in terms of attending school, getting good grades, completing Year 12 and accessing higher education.

The findings of qualitative interviews were largely supported by the participatory diagramming exercise. Through their diagrams, students identified concepts relating to participation in higher education, Indigenous cultural identity, and achieving personal goals as the most important markers of educational ‘success’. Students revealed that their perceptions of ‘success’ in education reside at the intersection of participation in the ‘Indigenous world’ and ‘mainstream world’. Together with the qualitative interviews, this insight reveals the complex experience of urban Indigenous students in navigating intersecting and divergent social worlds, drawing on support from family and community to manage the demands of formal education while accessing resources gained through education to ‘give back’ to family and community. Students also identified a set of connections across different educational outcomes, which adds further complexity to understandings of Indigenous student perceptions of educational ‘success’ and the relationship between different dimensions of ‘success’.

OPPORTUNITIES FOR THE RISE PROJECT

The findings of this paper – taken together with the findings of the literature review and a forthcoming paper that reanalyses the Longitudinal Study of Indigenous Children and the PISA 2018 survey – will inform the design of RISE evaluation tools. This research series will help to ensure that the data generated through the RISE evaluation reflects Indigenous student and family priorities. The findings of this paper support an evaluation that transcends existing measures of ‘success’ in Indigenous education policies. This RISE Project will incorporate measures of success that have been typically neglected in Indigenous education policy, particularly within the urban context. Conventional measures such as attendance, academic performance, and engagement will be considered alongside education measures which more closely align with Indigenous students’ and families’ priorities and life projects, including measures relating to social and emotional wellbeing, personal goals and achievement, cultural identity, social networks, and social relations. This research also highlights the need for the RISE evaluation to consider the social, cultural, and historical location of Indigenous students within the context of the formal education system.

1. Introduction

The concept of ‘success’ – particularly in the field of Indigenous education – is inherently complex and difficult to define, as it means different things to different people and groups. ‘Success’ can generally be equated to ‘positive outcomes’. But what constitutes a positive outcome is contingent upon a person’s social and cultural standpoint. The design of Indigenous education policy has largely occurred from the dominant social and cultural standpoint, with limited Indigenous input and control, and has consistently fallen short in measuring what matters to Indigenous students, families and communities. Moreover, very little research has been conducted into how Indigenous students and their families define success in education, particularly within the urban context. Listening to the views, needs and aspirations of Indigenous students, parents/carers, families and communities as to what ‘educational success’ means to them is crucial to establishing an educational environment that supports Indigenous students to thrive. This paper is a step towards achieving this. It explores the results of qualitative interviews conducted with Indigenous high school students from NSW, their parents/carers and Aurora program alumni on what success in education looks like to them.

This research builds on the first paper in the RISE Paper Series, a literature review that explores how Indigenous education outcomes have been defined and measured in Australia. The review found that Indigenous education outcomes fall into three themes: academic and career achievement; social and emotional wellbeing; and cultural identity. It also found that current Australian Indigenous education policy is dominated by a focus on statistical parity across a narrow set of academic outcomes, including attendance and Year 12 completion. In relation to social and emotional wellbeing, student

wellbeing is rarely used as an explicit outcome in the education context. While there is increasing interest in adopting measures of wellbeing for Australian students to support their overall educational achievement, further work is required in the education context to consider how psychological constructs that underpin measures of social and emotional wellbeing might differ for Indigenous students. In relation to cultural identity, most of the literature relates to cultural safety in the classroom, the cultural competency of schools, and culturally inclusive curriculum. There is little discussion in the literature on the importance of Indigenous cultural identity as a standpoint from which to construct and evaluate education outcomes.

The findings from this paper offer alternative measures to those adopted in current literature and policy and provide evidence for the need to broaden Indigenous education outcomes to incorporate Indigenous perspectives. The RISE literature review referred to Taylor’s (2008) ‘recognition space’ as an important theoretical foundation for the RISE Project in constructing measures that reflect Indigenous priorities in education. Taylor (2008) observes that the construction of official statistical measures of the good life are motivated by the objectives of government policymaking rather than reflecting Indigenous peoples’ priorities. Taylor argues for the need to create a ‘recognition space’ – defined as the intersection between government reporting frameworks and notions of wellbeing and Indigenous values and practices – to enable Indigenous priorities to be factored into policy development. The incorporation of this paper’s findings in the RISE evaluation is an important step towards making the ‘recognition space’ in education more visible and supporting subsequent research that responds to the ‘recognition space’ in education.

2. Methodology

DATA COLLECTION

The findings presented in this paper are based on two connected data collection activities, semi-structured qualitative interviews and participatory diagramming. Semi-structured qualitative interviews were undertaken online using Zoom with the following participants:

1. 10 Indigenous Aurora High School Program (HSP) participants (four male and six female) from Western Sydney in Years 10 and 11;
2. 5 parents/carers (one of whom was non-Indigenous); and
3. 5 alumni of the Aurora Study Tour and Scholarships Program.

The student and parent/carer sample was identified with the support of Indigenous Aurora HSP staff with a pre-existing relationship with students and parents/carers. The student sample was selected to include a gender balance and a diversity of student attitudes towards formal education. Initial contact with students and parents/carers was made by Aurora HSP staff and an interview was scheduled for those who agreed to participate. Student and parent/carer interviews were led by Aurora HSP staff with support from an ANU research team member. Aurora HSP staff received training on interview methodology from the ANU Centre of Social Research Methods prior to the interviews. Student and parent/carer interviews were based on a topic guide covering three themes: (1) school, education and learning; (2) culture, identity and community; and (3) the meaning of 'success'. Prior to interviews commencing, a one-day workshop was held with Aurora HSP staff and an ANU research team member to review the data collection process. As part of this workshop, the topic guide was updated to better reflect the overarching research question and to be more suitable for students. The participatory diagramming exercise was also piloted and changes were made to simplify the process and make it more suitable for students.

The alumni sample was identified with the support of Aurora Study Tour and Scholarships Program staff. Alumni interviews were led by Aurora's Monitoring and Evaluation Manager (who is also an alumnus of the Aurora Study Tour and Scholarships Program) with

support from an ANU research team member. Alumni interviews were based on a topic guide with overlapping themes to the student and parent/carer topic guide.

The participatory diagramming exercise was undertaken with students only and immediately followed the student interviews. Students were provided access to an online Miro board with a set of sticky notes with pre-populated concepts of educational success from our literature review and concepts of success that emerged during the interview (which were translated onto the Miro board during the interview by an Aurora member of the research team). Miro is an online platform for undertaking collaboration activities and workshopping ideas and is effective in engaging students in research concepts.

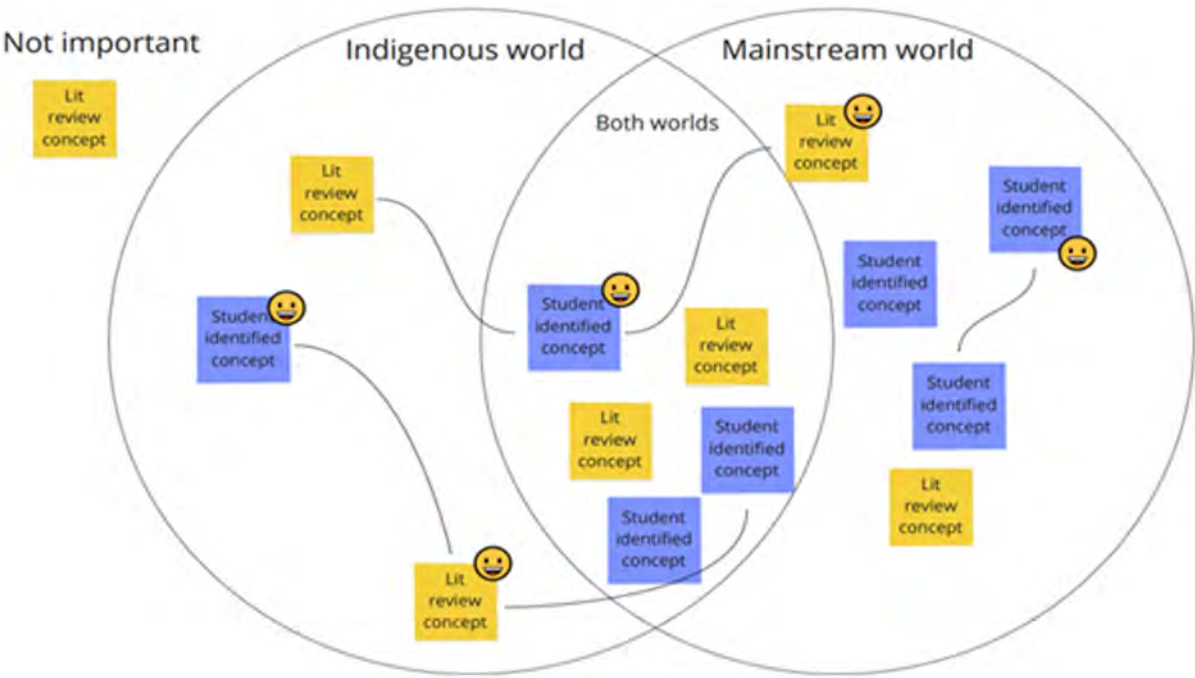
The participatory diagramming exercise involved three steps. First, students were asked to drag and drop the concepts of success on sticky notes into a Venn diagram with domains of 'Indigenous world', 'Both worlds', and 'Mainstream world'. The use of the 'two-worlds' notion was intended to encourage students to engage with concepts of educational success through the lens of their Indigenous identity. The notion draws on a growing body of 'two-worlds' Indigenous education literature that highlights the importance of developing Indigenous student strengths and resilience in both Indigenous and mainstream domains to support overall student achievement (Luke et al. 2013). The 'two-worlds' notion was left for students to interpret themselves. Second, students were asked to identify what they considered to be the five most important concepts using icons. Third, students were asked to draw lines between five concepts that they considered were most strongly connected. Students were not asked to identify the direction of these connections or given any other criteria.

Students were guided through the participatory diagramming exercises by Aurora HSP staff. The interviews and participatory diagramming combined took 45-60 minutes. Figure 1 shows a hypothetical example of a student diagram with smiley-face icons denoting the five most important concepts.

Data collection workshop with Aurora and ANU staff



Figure 1: Hypothetical Example of Student Diagram



INDIGENOUS METHODOLOGY

The research methods used in this paper are grounded in Indigenous methodologies. Walter and Andersen (2013) emphasise the importance of elevating Indigenous standpoint as a way of ensuring that research reflects Indigenous priorities, values and worldviews. Walter and Andersen also emphasise Indigenous standpoint in creating space for decolonising perspectives and displacing non-Indigenous research agendas that often situate Indigenous peoples as a deficit population. Indigenous standpoints are elevated at each stage of this research process. The RISE Project and this research paper were initiated and led by Indigenous staff at Aurora, an Indigenous organisation. The research methodology was designed by Indigenous Aurora staff and reviewed by external experts on Aurora's Indigenous Data Governance Committee against Indigenous Data Governance principles (Maia Mayri Wingara 2018).

Participatory and conversational data collection methods were chosen for their alignment with Indigenous methodologies. Participatory action research (PAR) involves collaboration between all research stakeholders to understand a social issue and seek to change it for the better (Goff 2001). PAR aligns with Indigenous methodologies in that it provides a framework for addressing unequal research relationships and can create space for the recognition of Indigenous knowledges. Kovach (2010) notes that the use of conversational methods in qualitative research can align with Indigenous cultural traditions of oral exchange. Kovach describes the conversational

method in contrast to positivist research paradigms as a relational exchange between researcher and participant in which knowledge is constructed through interaction. The involvement of Indigenous Aurora HSP staff with pre-existing relationships with participants in data collection supported a relational exchange grounded in pre-existing relationships and enabled the shared creation of Indigenous knowledge. The involvement of Aurora HSP staff in data analysis helped to ensure that research findings were interpreted within the context of this exchange. Smith (1999) details the harmful effects of research done 'to' Indigenous peoples and challenges positivist assumptions by arguing that Indigenous research should support Indigenous aspirations for self-determination and self-governance. The purpose of this research is explicit in seeking to expand the recognition of Indigenous priorities in education.

It was intended that preliminary analysis of qualitative interview and participatory diagramming data would be presented to a student focus group as a data validation and sense-checking exercise. This focus group did not proceed due to recruitment challenges. As an alternative, preliminary data analysis was presented to a focus group of Aurora HSP staff involved in data collection, discussed below.

DATA ANALYSIS

Data from the qualitative interviews were input and analysed in NVivo by Aurora members of the research team using an iterative thematic analysis method outlined by Braun & Clarke (2006). The initial phase consisted of familiarisation with the data as one Aurora research team member read through transcripts generated by Zoom and edited errors in the text. Thematic analysis was approached using a mixture of inductive and deductive coding. Our literature review was drawn on to identify an initial set of themes and codes relating to Indigenous 'success' in education. The initial themes were: academic/career achievement; social and emotional fulfilment; and cultural fulfilment. This initial analysis was reviewed by two Indigenous Aurora staff members. A focus group was then held with the Aurora HSP staff who participated in data collection to validate and revise the initial project map and related themes and codes. While no substantive changes to the analysis were suggested, the focus group made several important observations which are referred to in this paper.

Alongside Aurora's analysis of the qualitative interviews, an analysis was undertaken by an ANU research team member who was involved in data collection. The ANU team member compiled notes from the interviews and provided an analysis of key themes/findings and notable quotes. These findings were incorporated in the final analysis. After several stages of review with Aurora and ANU research team members, the data was finally organised in themes of 'relation to self'; 'relation to education system'; and 'relation to family and community'.

The results of each student's Miro diagram were mapped onto an Excel spreadsheet to facilitate data transformation and analysis. Comparable concepts were consolidated to reduce 98 initial concepts to a final list of 74. These concepts are shown in Appendix Table B. The results of the student diagrams were analysed through measures of frequency (the number of times a concept was mentioned) and salience (the relative importance assigned to each concept). The placement of concepts in either 'Indigenous world', 'Both worlds' or 'Mainstream world' was analysed through measures of frequency for each individual concept and for all concepts combined. Connections made between concepts were analysed through a simple count of connections for each concept and a chord diagram (Figure 4) visualising all connections made between concepts. These methods of analysis are described in further detail below.

3. Results

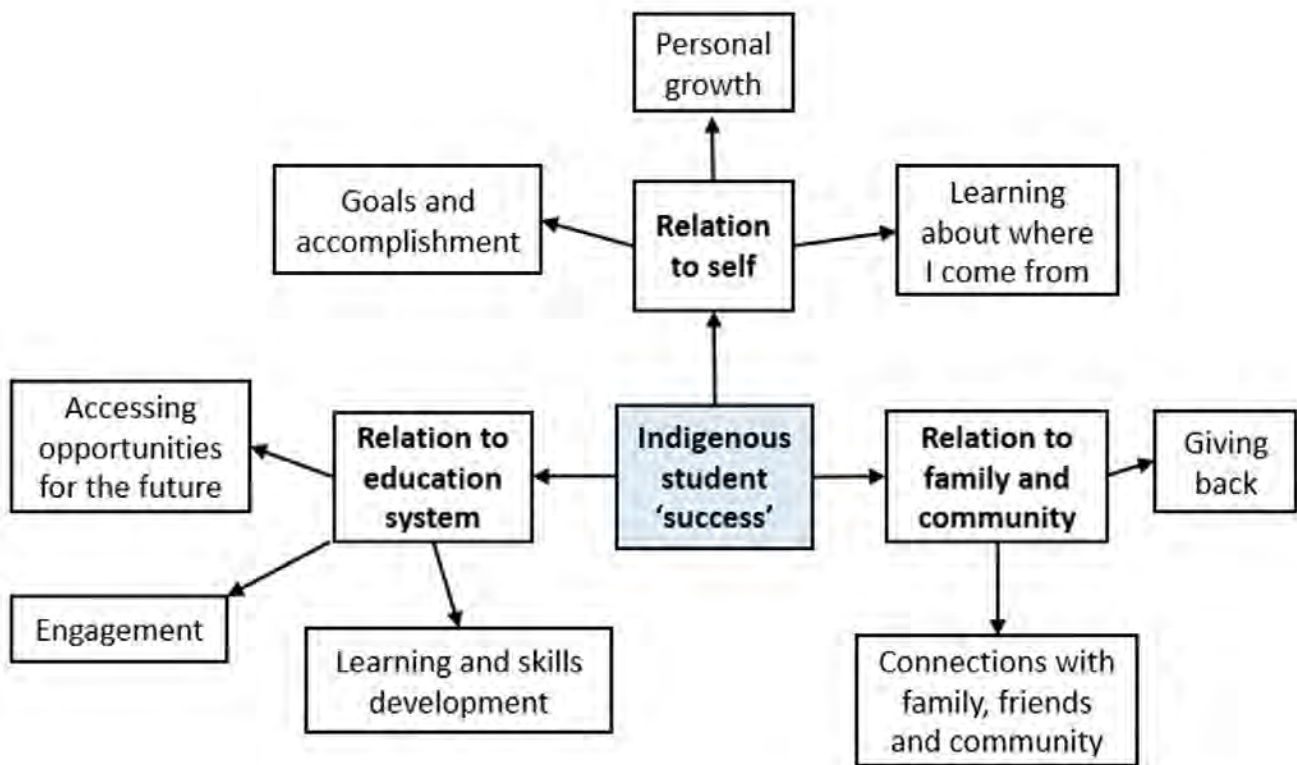
3.1 QUALITATIVE INTERVIEWS: OVERVIEW

Participants highlighted both the importance of conventional measures of success in education – such as completing school, going to university, and getting a job – and meanings of ‘success’ in education that extend beyond individual outcomes. A consistent theme to emerge from interviews was how education can be used to ‘give back’, to become a role model, to form social connections, and to assume ‘cultural responsibility’. Participants also emphasised that meanings of ‘success’ in education extend beyond the institutional confines of the education system and include personal, social, emotional, and cultural needs. Participants drew strong connections between education in the holistic sense and learning about who they are, forming a strong Indigenous identity, building confidence, and becoming a good person. In contrast, Indigenous education policies considered in the RISE literature review largely conceptualise Indigenous education outcomes in individualistic terms. Similarly, policy discourses around the ‘fulfilment of potential’ and ‘raising aspirations’ are conceived of in terms of participation in individualistic life projects, such as attending university or accessing employment. This approach to thinking about ‘success’ in education contrasts in significant ways with narratives that emerged in qualitative interviews.

3.2 RELATIONALITY

The analysis of qualitative interviews draws on the concept of relationality to reflect the way in which participants connect ‘success’ in education to personal, social, cultural, and institutional domains. The concept of relationality is well developed in the field of Indigenous methodology. Kovach (2010) refers to the ‘relational assumption’ in Indigenous research as an alternative to Western research paradigms. The ‘relational assumption’ reflects the notion that knowledge is created through a relational exchange between self, others, and Country. The concept of relationality is drawn on in the analysis of qualitative interviews to convey by analogy that Indigenous definitions of ‘success’ in education are not understood simply in terms of the individual student but the way in which that student relates to themselves, family and community, and the education system. The concept of relationality also captures the way in which Indigenous meanings of educational ‘success’ are seen not simply as an accumulation of individual achievements but as a series of reciprocal processes in which social networks support students in formal and informal learning and students in turn give back to those who have supported them and those who are following in their path. Further, the concept of relationality creates conceptual distance between Indigenous students and the education system. This distance is helpful in conveying that Indigenous students are expected to navigate an education system that has been established by the settler-colonial society and that perpetuates broader patterns of Indigenous socio-economic disadvantage. By separating Indigenous concepts of ‘success’ in education from the current goals of the education system relating to Indigenous students, the focus on how Indigenous students can better ‘fit in’ to the education system is displaced and space is created for decolonising perspectives.

Figure 2: Thematic Map of Interviews with Indigenous Students, their Parents/carers and Aurora Alumni



The thematic map at Figure 2 represents the themes and sub-themes that emerged in relation to definitions of ‘success’ in education from qualitative interviews. The thematic map places the Indigenous student at the centre of the analysis. While this approach may be seen to be giving primacy to individual over collective outcomes, the three relational themes that surround the Indigenous student – ‘relation to self’, ‘relation to family and community’, and ‘relation to education system’ – illustrate that Indigenous student success is interwoven within a web of relations. The decision to place the Indigenous student at the centre of the analysis is driven by the goal to evaluate the RISE Project and the individual student level. This approach does not preclude alternative approaches that centre collectivist

goals, and indeed it is hoped that the insights from this analysis and the broader RISE Project will support this agenda. The lines connecting the relational themes indicate that these themes are themselves related and flowing from that assumption, that meanings of ‘success’ within each theme – depicted by sub-themes – are interdependent. For example, doing well in education and ‘accessing opportunities for the future’ is seen as important to the achievement of personal ‘goals’ and as a means of ‘giving back’ to family and community. Similarly, establishing ‘connections with family, friends and community’ is seen as important to identity formation and ‘learning where I come from’, which in turn is considered an enabler of educational achievement.

Relation to self

Participants emphasised that education plays a critical role in supporting a positive inner life for students. Participants described the importance of education in terms of promoting wellbeing and supporting the development of social and emotional skills. Participants emphasised the importance of education in the overall achievement of happiness. They also connected education with the concept of fulfilment. Students and parents/carers mentioned that they see mental health and student wellbeing as something that needs to be prioritised in schools. Parents/carers also viewed the purpose of education as a way for students to develop their self-confidence. The purpose of education was spoken about in connection with a range of related concepts, including as a means of enabling personal growth, developing resilience, self-awareness, social skills and emotional skills, for learning how to be fit and healthy and discovering one's strengths. Participants also connected education with aspirations to develop certain personal strengths and attributes, such as becoming a good person, being strong and determined, and becoming a leader.

"The biggest win that I can see personally is the fact that the socialising with all the kids through school and outside of school which will be more beneficial for [my child] in the sense of confidence, and if he's got confidence then he'll be able to achieve a bit more." – Parent

"Oh yeah, being a good person, that's really important to me." – Student

"[His education will] be very beneficial to him in the long run, especially the leadership side of things." – Parent

These narratives reveal that Indigenous concepts of 'success' in education have a deeply personal and psychological dimension that extends far beyond narrow metrics of 'success' that currently dominate Indigenous education policies.

"I don't really think there's any benefit doing really well in something that makes you unhappy [...] or makes you feel unfulfilled." – Student

Participants emphasised the importance of education as a means of fulfilling personal goals. While the particulars of these achievements were largely expressed in terms of finishing school, attending university, and developing skills to access desired careers, the notion of 'success' that emerged from these achievements was frequently expressed in terms of 'relation to self'. Students described education as a means of gaining a sense of personal accomplishment, fulfilling their potential and achieving their goals. Students also related their own sense of personal accomplishment and potential to the opportunities that were afforded to their parents/carers and family. For example, some students emphasised the importance of the opportunity to go further in education than other members of their family.

"I know that my Mum or Dad and stuff didn't really go further in like their education and they didn't really have like a career and that...And I just, I think what makes me want to try at school is like I want to set myself up to put myself in the position that I want to be in when I'm old. Like I want to be somewhere that like I actually have to try achieve and it's somewhere that I wanted to go. It's not just kind of where I ended up." – Student

"I want to be the first one in my family to go to uni." – Student

The sense of personal accomplishment and fulfilment of potential was also implicit in several alumni narratives. Alumni consistently referred to challenges experienced in high school, including not feeling valued, not feeling that they belonged, and lacking recognition of their Indigenous identity.

"I guess my experience when it comes to schooling has always been down to like, every single classroom I've been in, your identity as a blackfella is always politicised because they're not really teaching the true history of your people. But then that you have teachers that are questioning – in my case it was teachers and some students, but mainly teachers – questioning your ability to get through high school." – Alumni

"It's just like, I was angry most of the time because it was a slap in the face to be learning about Captain Cook and Japanese history, Indonesian history, and everybody celebrating all these different, you know, Japanese culture, Indonesian culture, Italian culture – but not really acknowledging what they have in their own backyard. And so that really was like a – it was a triggering point throughout schooling because I'm like, well, you mob need to understand how beautiful our culture is, and it's one of the longest living cultures in the world – but it wasn't celebrated, it was just looked down upon because of the stereotypes that people associated blackfellas with." – Alumni

Alumni described the experience of high school in terms of 'surviving' or 'getting by'. These descriptions contrasted with experiences of higher education. Several alumni described their experience of higher education and interactions with Indigenous Higher Education Units (IHEUs) as the first opportunity to positively express their Indigenous identity in an educational setting. Alumni described higher education as an opportunity to intellectually thrive, and despite finding high school challenging, several alumni have academically excelled on an international scale.

"I like to think that I've been successful because I've wanted to achieve things that I didn't think I could achieve. So even like finishing high school and then getting through university and then graduating from my degree, like I didn't think I would be able to do that." – Alumni

Student and alumni narratives relating to the 'fulfilment of potential' provide an important qualification to current Indigenous education policy narratives. Our literature review noted that policy narratives describe the 'fulfilment of potential' in terms of the pursuit of mainstream life projects – such as attending university and accessing employment – and place the onus on individual Indigenous students to 'raise their aspirations' to participate in these projects. While student and alumni narratives align the 'fulfilment of potential' with the achievement of similar mainstream goals, 'success' is described within the context of an education system that is implicitly perceived to restrict opportunities for Indigenous students. Rather than a triumph of individual aspirations, 'success' in this context is seen as the 'fulfilment of potential' as an Indigenous student in spite of the education system.

The discussion of the relationship between Indigenous cultural identity and 'success' in education varied between students and alumni. Students noted the relationship between doing well in education and a range of goals that may be described as Indigenous values, such as 'giving back' to family and community and being a role model to others, discussed below under 'relation to family and community'. In the diagramming exercise, students placed significant weight on the importance of cultural identity as both an outcome and in connection to other outcomes, also discussed below. Students and parents/carers also described the importance of learning about culture in connection to knowing oneself.

"Why is culture important? Because they need to know where they come from. They need to know who they are. It all comes down to his identity as well, like – he needs to know exactly who he is and where he comes from." – Parent

"If I don't learn about my culture, then it's just gonna be a part of my identity that's just gonna be missing." – Student

Despite this, students rarely explicitly discussed cultural identity as it related to their experience of formal education. In the focus group with Aurora HSP staff, it was suggested that students were still on their cultural 'journey' and may have lacked the language and confidence to articulate their experience in these terms. It was also noted that students were still attending high school and may have lacked the critical distance required to understand their experience of education through the lens of their Indigenous identity. Drawing on the language used by alumni, students may still be in the 'survival' stage of their education.

In contrast to students, alumni strongly emphasised the relationship between their cultural identity and their ability to succeed in education. While alumni narratives varied in significant ways, a consistent pattern emerged and the trajectory of alumni followed a similar course. Alumni described that feelings of indifference or detachment around education typically engendered by negative experiences of high school were transformed by positive experiences of Indigenous identity. These positive experiences took different forms. Alumni described how the recognition of their Indigenous identity within education institutions, such as through

interactions with Indigenous education support staff at high school or IHEUs at university, created a sense that they belonged or had a place within these institutions. Alumni also described how their Indigenous identity gave them confidence and motivated them to achieve, including as a means of assuming 'cultural responsibility' by positioning themselves to 'give back' to those around them.

"I come from a really strong, supportive family, so family and culture and [knowing] who I was really grounded me and pushed me through." – Alumni

Unlike current students, alumni have the benefit of time and distance to articulate the relationship between their Indigenous identity and their experience of education. The central role of Indigenous identity in alumni narratives of 'success' exposes the shortcomings of current Indigenous education policies that neglect the relationship between the positive recognition of Indigenous identity and educational achievement. Alumni narratives also raises the question about the lost academic potential of Indigenous students who have been driven from the education by negative experiences, such as racism and discrimination. When asked about whether the education system should be doing more to support the cultural identity of Indigenous students, students, parents/carers and alumni unanimously agreed.

"Seeing young black kids learning about their history [...] in schools from early on [...] up until high school like I've seen, I've seen that and the impacts of that and then having external community support has allowed them to thrive, knowing who they are is celebrated rather than nobody in the school knowing who they are and about their identity." – Alumni

Relation to family and community

The most frequently discussed concept across qualitative interviews with students, parents/carers and alumni was the importance of social networks in supporting student success (Table 1). These social networks included family, friends, community members, teachers and other role models and were identified as critical in supporting students' overall wellbeing, participation in education and providing guidance for the future.

"I didn't think that I'd get to where I am today in terms of being a university student in general, let alone going on a postgrad study tour[.] [I]t wasn't until I started to have those sort of mentors and extra tutoring support, and as feeling like valued, I guess, within the system that it really started to thrive for me." – Alumni

"I go to school with my brothers as you know and like, having them there, they just give me like, assurance." – Student

"Dad just inspires me to like, keep achieving my goals." – Student

"And a lot of that has been grounding myself in my community and family and culture, and without them, I wouldn't be here today." – Alumni

"I definitely would be interested in like, in having that community because I think that does make a difference in uni. You know, I was always self-confident in who I am, but I think having a community just makes it like someone's got your back." – Alumni

"[His teachers are] taking an interest as to where he is now and what he can actually achieve if he commits himself. So I think, yeah, definitely the relationship that he is building with his teachers and the support he's got from them [is critical]." – Parent

The weight that participants assigned to social support networks may be interpreted as an implicit rejection of policies that place the onus on individual Indigenous students to succeed in education, such as policies seeking to raise individual student aspirations. Participants' recognition of the importance of social support systems also alludes to further ways in which the education system operates to the disadvantage of Indigenous students. As discussed, students and alumni narratives revealed an implicit awareness of the education system as functioning to limit opportunities for Indigenous people, for example through awareness of limited opportunities afforded to family members. In this context, Indigenous students have restricted access to social networks that can support them to navigate the formal education system in comparison to the dominant majority. Drawing on the language of social capital theory, participants described high levels of access to bonding social capital – closed networks such as family that help people get by – but limited access to bridging social capital – overlapping

networks that can help people get ahead through access to resources such as education and employment (Woolcock & Narayan 2000).

Students and parents/carers described forming connections with others through friendship and socialising as an important outcome in education. This included socialising with both peers and teachers.

“Like what I like about school is I can have – I can socialise very easily. It’s not only my peers, but like the teachers as well.” – Student

“I think there’s more to it than that. Like school is like for education – like mainly for education – like going to learn. But I...like, it also helps you with other skills. Like helps you like, make friends and that. Like it’s also a good place to like, socialise and meet new people.” – Student

Relatedly, students and parents/carers described education as having an important role in supporting students to develop ‘people skills’, being able to interact with people from different backgrounds and cultures, learning through being exposed to others, public speaking, learning how to run meetings, learning how to deal with other people and learning to ‘speak up’.

“Does it all have to be about education, though, like children don’t just learn through education. Children – like young adults – learn through things like social camps, and not everything should have to be done in the classroom.” – Parent

Alongside the role of social connections and networks in supporting student success, students and alumni emphasised the reciprocal nature of ‘relations with family and community’ by highlighting a desire to ‘give back’ as an important motivator of success in education. Students and alumni described ‘giving back’ in terms of making family and others who had supported them in their education proud. They described ‘giving back’ to their community through the pursuit of certain career pathways that could generate social or public goods. Alumni also frequently described the importance of mentorship from others in their own experience of education, and some alumni had taken on mentorship roles with younger Indigenous students.

“If I could become a police officer it feels like I could be like watching over [my community] [...] Like watching over them and being that person that protects them which is my way of giving back.” – Student

Participants also described the importance of connection with others as it related to learning outside the formal education system. Participants emphasised the importance of connecting with Indigenous family members and peers in learning about themselves, forming a strong Indigenous identity and developing confidence. While Indigenous identity was described by participants as an enabler of success within the formal education system, it was also understood as an important outcome in itself.

“I think it’s important to, you know, like learn where you come from, and like um the traditions and everything like that.” – Student

A growing body of Indigenous-led wellbeing literature is advancing the theory that the wellbeing of Indigenous people cannot be thought of in isolation from the network of social, economic, cultural and environmental relations that define their world (see Bourke et al. 2018; Wright et al. 2022; Yap & Yu 2016). Similarly, the importance that participants placed on reciprocal social relations in supporting educational and other outcomes encourages new theorising about Indigenous ‘success’ in education that centres these social relations. The weight that participants placed on ‘giving back’ to others challenges liberal norms of ‘success’ as individual accumulation and raises the possibility that a uniquely Indigenous definition of educational success should account for the way in which the accumulation of educational and other resources is used to benefit others. The development of new theory in these directions will be confronted by challenges. On one hand, it demands a shift in firmly established policy norms around a focus on the individual and their relation to the education system. On the other hand, it raises legitimate questions about whether social relations grounded in Indigenous cultural practices should be made visible in policymaking or should instead be allowed to continue through existing social and cultural processes as they have done for millennia.

Relation to the education system

Students, parents/carers and alumni narratives about experiences and perceptions of school create a complex picture of the relationship between Indigenous students and the formal education system. As discussed, alumni in particular described the school environment as one in which they often did not feel supported to positively express their Indigenous identity, did not feel recognised or valued, and ultimately did not feel supported to fulfill their academic potential. Participant narratives also demonstrated in various ways a high level of awareness of the place of Indigenous peoples within an education system established by the settler-colonial society and that perpetuates broader patterns of Indigenous socioeconomic disadvantage. Participant narratives were coloured by implicit and explicit references to the prevalence of racism towards Indigenous peoples and its harmful effects, including institutional forms of racism.

“We dealt with a fair bit of backlash and racism from different teachers.” – Alumni

“Even then, when I was a ----- going to practicals, I actually had to leave some pracs because of the racism from other ------. Or when I was working as a ----- full time, like the burnout and then the racism [...] was really difficult because you’re dealing with a full – like, a hard job.” – Alumni

“Racism is very, very, very big out there, and that’s why it is important for children to identify who they are and be proud of who they are, and where they’re from.” – Parent

The RISE literature review observed that there is growing interest in the adoption of official wellbeing outcomes as a way of supporting students to fulfill their potential. Alumni narratives in particular support the contention that wellbeing and the fulfilment of basic psychological needs through participation in the education system – including feeling valued, recognised and a sense of belonging – are necessary to enable students to thrive. The RISE literature review noted that the development of wellbeing outcomes applying to Indigenous students should consider how psychological constructs of wellbeing differ for Indigenous peoples. These interview findings suggest that wellbeing outcomes

for Indigenous students should also consider the social, cultural, political and other power relations that situate Indigenous students in the classroom, and that are experienced at the individual student level in the form of racism, exclusion and restricted access to opportunities.

Alongside narratives relating to the challenges of navigating schooling as an Indigenous student, participants also identified the education system as an important pathway for accessing career and other opportunities for the future. These opportunities were expressed in several different ways, including ‘getting somewhere in life’ and gaining access to opportunities to pursue one’s preferences. In connection to the concept of school as a pathway to opportunities, participants identified several aspects of success that align with existing Indigenous education policies, including getting good grades, attending school, completing school and going to university.

“Having an education can really help you get somewhere in life.” – Student

“The point of education is to give everybody the opportunity to like do whatever they want.” – Student

Participant narratives identified the education system as a pathway to fulfilling personal goals and, as such, revealed significant overlap between relation to the education system and relation to self. As discussed, participants described success in education as a way of fulfilling personal goals or gaining a sense of accomplishment, and they identified school as an important site for building friendships and connections with others. Participants connected success in education with the development of a range of important life skills, including people skills, communication skills, and skills for accessing a job. Students described enjoying the learning process and several students expressed a preference for individualised and holistic forms of learning that are tailored to their strengths and interests. Students also described a range of benefits from the formal learning process that extends to their life in general, including broadening their perspectives, learning about what they are good at, and gaining insights into their options for the future.

“Sometimes the lessons have contained like, life lessons as well [...] It’s not even like, the school content. It’s just the teachers in general like they can give you advice on life and stuff.” – Student

Parents/carers frequently expressed that schools need to prioritise building students’ confidence and developing ‘practical’ skills. Parents/carers also overwhelmingly spoke of the benefits of their children being involved in cultural programs and learning about their culture at school. They expressed that these programs allowed their children to develop a better sense of their identity, which they felt was important. Although parents/carers mostly expressed the aspirations they have for their

children as them following any pathway that fulfills them, several parents/carers also mentioned that they hoped their child would complete school and attend university. Similarly, parents/carers spoke of success in terms of their children doing their best and reaching their own self-defined goals.

“I just want him to do his best and just do something that he loves and, you know, like to try achieve the best in his education that he can to achieve his goals.” – Parent

“I want to see him go down the path he wants to go down.” – Parent



Table 1: Frequency of Concepts Discussed in Qualitative Interviews by Participant Type

Concepts	Student	Alumni	Parent/carer	Total
Support systems	5	7	1	13
Pursue desired future	7	1	2	10
Wellbeing	6	3	1	10
Access to opportunities	7	0	1	8
Feeling confident	1	2	5	8
Achieving goals	4	1	3	8
Becoming knowledgeable	6	1	0	7
People skills	5	0	2	7
Learning	3	1	3	7
Doing my best	5	0	2	7
Go to Uni	5	0	2	7
Practical skills	4	0	2	6
Individual learning needs	4	1	1	6
Complete studies	2	1	3	6
Competition	5	0	0	5
Learn Indigenous cultural practices & history	2	2	1	5
Pathway to career	3	1	0	4
Hands-on	2	1	1	4
Personal growth	2	0	2	4
Connections with others	2	0	2	4
Personal autonomy	1	2	1	4
Personal development	2	0	2	4
Personal accomplishment & fulfilment	3	0	1	4
Strong Indigenous identity	3	1	0	4
Strength & resilience	3	1	0	4
Give back to family & community	3	1	0	4
Getting good grades	1	0	2	3
Attendance	2	0	1	3
Cultural responsibility	0	3	0	3
Learn where I come from	2	0	1	3
Life lessons	1	0	1	2
Upskilling	1	0	1	2
Role models	1	1	0	2
Feeling valued	0	2	0	2
Achieving more than parents	2	0	0	2
Proud in Indigenous identity	0	1	1	2
Job security	2	0	0	2
Being a good person	2	0	0	2
Independent learning	1	0	0	1
Broaden perspective	1	0	0	1
Being yourself	1	0	0	1
Health and fitness	1	0	0	1
Self-discovery	1	0	0	1
Enjoying learning	0	1	0	1
Extra-curricular involvement	1	0	0	1
Share Indigenous knowledge	1	0	0	1
Maintain connection to culture	1	0	0	1
Total	118	35	46	199

3.3 STUDENT PARTICIPATORY DIAGRAMS

Frequency

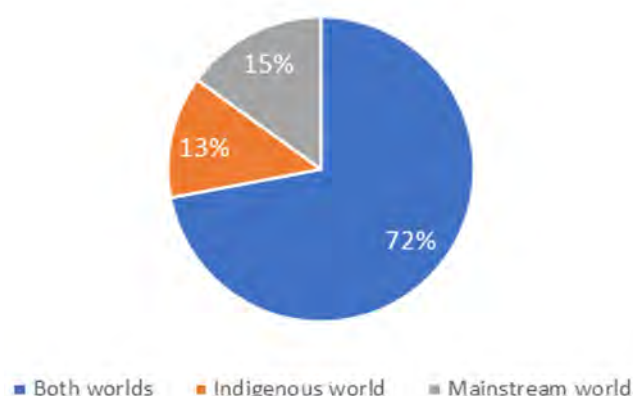
The frequency with which students referred to each concept is set out in Appendix Table B. The frequency rate is calculated by dividing the number of times a concept was included in student diagrams by the total number of student diagrams (10). The frequency rate is of limited value, as pre-populated concepts derived from the RISE literature review have a default frequency rate of 100% unless students assign the concept to the 'not important' section of the diagram.¹ Following consolidation, 98 concepts that featured in the diagrams were reduced to 74. Of these concepts, 19 were pre-populated from the literature review and 55 emerged from interviews. The concept that had the greatest frequency rate, and that was not pre-populated from the literature review, was 'achieving my goals' (80%)

Indigenous and mainstream worlds

Students were asked to drag each concept from the diagramming exercise into a section of the Venn diagram representing 'Indigenous world', 'Mainstream world', 'Both worlds', or 'Not important' (see Figure 1).

Figure 3 shows that approximately three in four concepts of educational success were identified by students as being relevant to both their Indigenous and mainstream world. Figure 3 also shows that approximately one in six concepts were identified by students as being exclusively relevant to either their Indigenous or mainstream worlds. Appendix Table C shows the distribution of each concept across Indigenous, mainstream and both worlds. The findings of this exercise support the idea that emerged from qualitative interviews that participation in education for Indigenous students involves a complex negotiation of intersecting social worlds and identities. These findings also suggest that the growing body of 'two-worlds' Indigenous education literature broadly aligns with the way Indigenous students perceive their own experience of education.

Figure 3: Proportion of Concepts Assigned to 'Indigenous world', 'Both worlds' and 'Mainstream world' (N=74 concepts)



Alongside findings that support a 'two-worlds' theory of Indigenous education, this research also gave rise to findings that challenge the universal applicability of the 'two-worlds' concept. When discussing the 'two-worlds' concept, one Alumni objected to the suggestion that they occupied a 'mainstream' world and posited instead that they only inhabited an Indigenous world.

"For me, it's always like...being Black first...[.] It's not that I'm in their world, but they're in my world."
– Alumni

During consultations on the participatory diagramming methodology with Indigenous Data Governance Group (IDGG) members, concern was raised that some students may not be familiar with the 'two-worlds' concept. However, in the piloting workshop, it was made clear that students had been exposed to the 'two-worlds' concept through their participation in the Aurora High School Program, and indeed students demonstrated a high degree of understanding of the concept in undertaking the participatory diagramming exercise. Despite this, it is likely that many Indigenous students are not familiar with the 'two-worlds' concept and that it may be alienating for some Indigenous students with limited knowledge or awareness of their cultural identity.

¹ NB: One student assigned 'Change to go to Uni' as not important. While it was pre-populated in the diagram, it has a frequency of 90%.

Salience

Salience denotes the relative importance that students assigned to each concept. Salience is calculated by adding up the number of weights (icons) that students assigned to each concept and dividing that by the total number of weights available to all students (50).

For example, if a concept has a salience of 10% it was assigned 5 weights. Table 2 shows concepts with a salience of more than zero and the corresponding way in which the concept entered the diagram (i.e. literature review or student-identified during the interview).

Table 2: Salience and Source of Concepts from Student Diagrams

Concepts	Source	Salience
Chance to go to university	Literature review	10%
Learning about Indigenous culture/history	Literature review	8%
Achieving my goals	Interview	8%
Self-confidence	Literature review	8%
Becoming proud of my culture	Literature review	6%
Being able to give back to my community	Literature review	6%
Giving back to my family	Literature review	6%
Learning where I come from	Literature review	4%
Strong Indigenous identity	Literature review	4%
Learning from Elders	Literature review	4%
Resilience	Literature review	4%
Feeling fulfilled	Literature review	4%
Friendship	Interview	2%
Getting skills for a job	Literature review	2%
Getting a job	Interview	2%
Becoming smarter	Literature review	2%
Physical health and strength	Literature review	2%
Being able to express individuality	Interview	2%
Life skills	Interview	2%
Having something to show for myself	Interview	2%
Opportunities for the future	Interview	2%
Mental health/wellbeing	Interview	2%
Finish Year 12	Interview	2%
Being able to travel	Interview	2%
Being a good person	Interview	2%
Making family proud	Interview	2%

The salience that students assigned to concepts of 'success' in education in the diagramming exercise support the narratives that emerged from qualitative interviews. Students identified the 'chance to go to university' as the most salient concept of 'success' in education. This concept stands out as a conventional marker of success within the mainstream education system and highlights a strong desire among students to participate in further education. Interestingly, attending university is identified by students as more salient (10%) than other conventional markers of educational success that more commonly feature in Indigenous education

policies such as Closing the Gap, including completing Year 12 (2%) and getting a job (2%). Alongside attending university, students assigned a high degree of salience to culturally relevant markers of educational success, including 'learning about Indigenous culture/history' (8%) and 'becoming proud of my culture' (6%). Students also placed significant weight on the importance of education in enabling them to 'give back' to 'community' (6%) and 'family' (6%). Students also assigned significant weight to educational outcomes that were discussed under the theme of 'relation to self', including 'achieving my goals' (8%) and developing 'self-confidence' (8%).

Connections between concepts

As a final step in the participatory diagramming exercise, students were asked to draw 5 lines between concepts that they considered were most strongly connected. Students were not asked to identify the direction of these connections and were not given any criteria for the nature of these connections. The connections made by students were consolidated onto a single spreadsheet and an adjacency matrix was created using the *igraph* package in R (version 4.2.1). The results are visualised using a chord diagram at Figure 4 created using the *circlize* package in R.

In Figure 4, lines between concepts depict connections made by students. A total of 38 concepts (out of a possible 74) were identified by students as being connected and 94 connections in total were made. The length of the band on the perimeter of the chord diagram indicates the number of connections that were made to each concept.

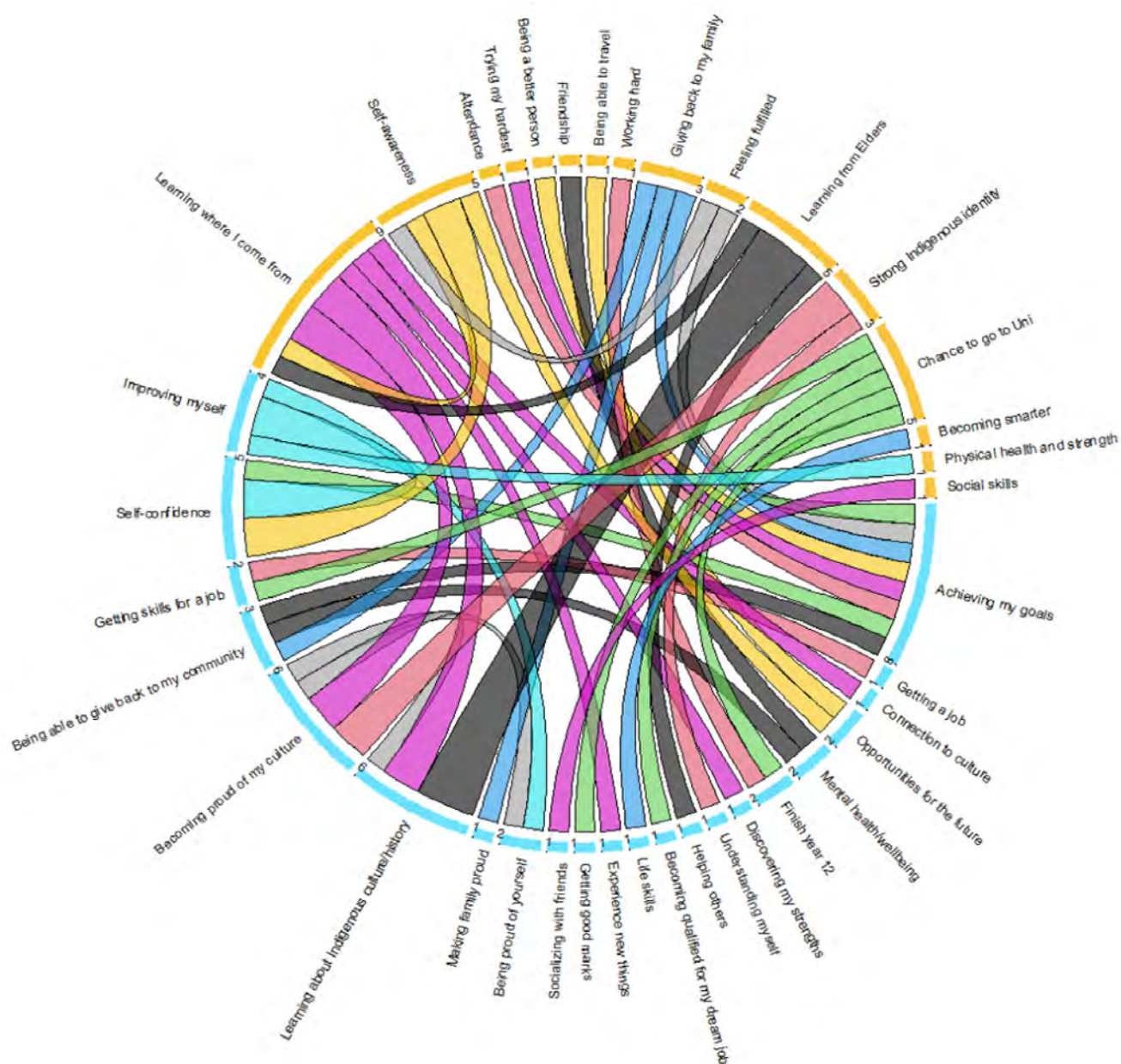
The concepts with the most connections were 'learning where I come from' (9), 'achieving my goals' (8), 'learning about Indigenous culture/history' (6), and 'becoming proud of my culture' (6). As discussed above, in qualitative interviews, students were less likely than alumni to speak explicitly about the significance of culture in their experience of education. However, in the participatory diagramming exercise, students identified a high degree of connectivity between various dimensions of Indigenous cultural identity. This result supports the suggestion that students may have lacked the confidence or language to articulate the relevance

of culture to their education but were nevertheless conscious of culture and could express its relevance in alternative ways. Many culturally relevant outcomes were connected to other culturally relevant outcomes. For example, there are multiple connections that can be traced from 'learning from Elders', to 'learning about Indigenous culture/history', to 'learning where I come from'.

Consistent with findings from qualitative interviews, students identified a high degree of connectivity between outcomes discussed under the theme of 'relation to self', including 'achieving my goals' (8), 'self-confidence' (5), and 'self-awareness' (5). Students also drew connections between outcomes discussed under the themes 'relation to self' and 'relation to family and community'. For example, connections have been made from 'achieving my goals' to 'giving back to my family' and 'being able to give back to my community'.

The colour of the perimeter of the chord diagram represents the source of the concepts. Yellow represents literature review concepts that were pre-populated in the diagram and blue represents concepts that emerged during student interviews. The fact that more than half of connections were made to concepts that emerged from student interviews suggests that further research is required on how Indigenous students themselves perceive success in education and the relationship between various dimensions of success.

Figure 4: Chord Diagram of Connections between Concepts of Educational 'Success'



Note: Yellow perimeter represents concepts from literature review and blue represents concepts from interviews

4. Discussion

The participatory diagramming exercise and the qualitative interviews paint a complex picture of Indigenous student success that is formed through interdependent relations to self, family and community, and the education system. Within these relations, Indigenous students are required to navigate intersecting Indigenous and mainstream social worlds and participate in a network of reciprocal forms of exchange. This navigation requires students to draw on social support networks to meet the demands of formal education while using resources gained through participation in education to give back to family and community. Adding to the complexity of this picture, Indigenous students are required to participate in an education system that has been designed to meet the needs and preferences of the settler-colonial society and that systematically restricts opportunities for Indigenous students – a fact which participants were deeply cognisant of.

This picture of complexity stands in contrast to several existing Indigenous education policies that reduce Indigenous student success to a limited and narrow set of outcomes, such as school attendance and Year 12 completion. The reductive conceptualisation of Indigenous student success in existing policies can result in policy interventions that mischaracterise and oversimplify policy ‘problems’. It is suggested that education policies that are informed by a more complex and evidence-based understanding of how Indigenous students and families perceive success in education will better enable more nuanced and effective Indigenous education policy interventions.

DISPARITIES BETWEEN LITERATURE AND POLICY AND INDIGENOUS DEFINITIONS OF ‘SUCCESS’

The RISE literature review found that literature and policy on Indigenous education outcomes predominantly focus on academic performance, engagement, and participation measures as indicators of success. However, these measures of success are not as strongly supported in the data presented in this paper. While some respondents view these outcomes as important, both the qualitative interview and participatory diagramming results highlight that a broader and more holistic set of educational outcomes are more important to Indigenous students and families. For instance, ‘support systems’, ‘pursue desired future’, and ‘wellbeing’ were the three most frequently referenced concepts as shown in the frequency table (Table 1), while ‘chance to go to uni’, ‘learning about Indigenous culture/history’, ‘achieving my goals’ and ‘self-confidence’ were the most salient outcomes in participatory diagramming (Table 2). These outcomes are not currently used as measures of success in Indigenous education policies in Australia.

Additionally, as discussed, Indigenous education policy discourses primarily conceptualise ‘success’ through an individualistic lens. While this research finds that some Indigenous students’ aspirations align with this discourse, this research also reveals that some Indigenous conceptualisations of aspirations relate to collectivist goals, such as ‘giving back’ to family and community. Several students, for instance, expressed that their preferred career is one that allows them to give back to their community, and several alumni commented on how a sense of cultural responsibility underpins their career goals. Moreover, policy conceptualisations of success do not consider a student’s social and emotional wellbeing and are solely underpinned by the notion that mainstream concepts of success are sufficient for leading a good life. However, this research shows that some students believe success to mean whatever pathway one finds personally fulfilling and that fulfilment is more important than mainstream notions of ‘success’. Similarly, a significant proportion of students spoke about aspirations in relation to becoming a better person, such as being a good person, or being a strong person. This notion is not considered in policy conceptualisations of aspirations for formal education. These disparities highlight the need for educational policy measures that consider the values and aspirations of Indigenous students and families.



IMPLICATIONS FOR INDIGENOUS EDUCATION POLICY REFORM

Another important point in relation to Indigenous education policy reform is that no one universal definition of success exists across Indigenous communities or across students in the same cohort. This research identifies a variety of perspectives across a small sample of Indigenous students, parents/carers and alumni. This highlights the need for localised approaches to educational reform led by Indigenous communities.

Participants expressed a range of values and aspirations in relation to education that may be seen as ideologically conflicting. For example, participants emphasised the importance of certain goals such as ‘giving back’ to family and community in terms of their Indigenous identity and sense of cultural responsibility. Participants also expressed aspirations that aligned with mainstream life projects, such as attending university and securing stable employment. Some students also expressed that they were motivated to succeed in education by a desire to compete with their peers, which may be considered a typically individualistic and liberal value.

The tension between the goals and aspirations that participations identified in education highlights that Indigenous students interact with the education system at the intersection of Indigenous and mainstream social worlds. Further, the fact that participants recognised the importance of a range of outcomes that are reflected in existing Indigenous education policies – including getting good grades, school attendance, Year 12 completion, and participation in further education – supports the case that existing outcomes should be retained in some form. It also serves as a potential criticism of reforms that have the potential to limit Indigenous access to mainstream education pathways.

5. Opportunities for the RISE Project

This research paper has generated several important insights on the perspectives of Indigenous students and their parents/carers on the meaning of 'success' in education. These insights help to illuminate the 'recognition space' in education and will inform the construction of data collection instruments that will support the evaluation of the RISE Project.

The findings of this research paper highlight the relevance of measures of 'success' that transcend those described in our literature review. While there is an overlap between conventional measures of success established by policymakers and those identified by participants here, this paper provides strong evidence for the inclusion of broader and more holistic measures in the evaluation of Indigenous education programs and policies. This RISE Project will incorporate measures of success that have been typically neglected in Indigenous education policy, particularly within the urban context. Conventional measures such as attendance, academic performance, and engagement will be considered alongside education measures that more closely align with Indigenous students' and families' priorities and life projects, including measures relating to social and emotional wellbeing, personal goals and achievement, cultural identity, social networks, and social relations.

These research findings reveal the complexity of the Indigenous student experience. The RISE Project will endeavour to reflect the way in which Indigenous students are required to navigate Indigenous and mainstream worlds and the role of Indigenous social relations in supporting students to get through formal education and in turn 'give back' to family and community. The RISE Project will consider relationships across different domains of 'success' beyond the type of relationships that are typically considered in mainstream educational research. The RISE Project will also consider the social, cultural, and historical location of Indigenous students within the formal education system.

As an important caveat, the incorporation of these research findings in the evaluation phase of the RISE Project will be limited by the scope of the RISE Project itself. There are several structural factors that shape a student's educational experience which are beyond the scope of the RISE Project. The RISE Project will take place beyond the 'school gate' and have limited influence over a student's schooling experience or home environment. While the RISE Project will consider schooling and home life among a range of factors that determine a student's overall experience, priority will be given to outcomes that the RISE Project has influence over. While the RISE Project will aim to control for exogenous effects, this will be limited to observed effects and will not include a range of unobserved effects.

6. Limitations

This research has several limitations relating to selection and response bias. The sample has been selected from Aurora program participants. This is likely to skew the data in various ways. The student and parent/carer sample live in the Western Sydney area and speak from a distinct social, cultural, and historical experience. As a condition of participation in the Aurora HSP, students are required to demonstrate a minimum level of participation in the HSP and their schooling. This is likely to skew the data towards the perspectives of students who are engaged in their education and miss some of the perspectives of students with lower levels of engagement. The student sample also represents a narrow age range of between 14 and 16, and perspectives may differ among younger and older cohorts.

Another potential source of bias may be perceived to emerge from the involvement of Aurora staff in research involving Aurora program participants, including lack of staff objectivity and the effects of social desirability bias on participants. Mitigating this concern, this research does not involve the evaluation of Aurora programs. Further, the methodology rejects positivist assumptions of research objectivity and explicitly recognises the role of Aurora staff in the co-creation of knowledge.

Appendix

Appendix Table A: Thematic Analysis Codebook

Theme	Code	Description
Relation to education system		A student's relation to education/how a family sees their child relating to the education system
	Enablers	What students/parents think helps a student feel and perform better at school
	Alternative teaching methods	Teaching that caters to a student's individual learning style or preferences
	Feeling valued	A student feeling recognised and important within the education system
	Strong Indigenous identity	A school's recognition and celebration of a student's Indigenous identity
	Support systems	The emotional and academic support a student receives from friends, family, mentors, teachers
	Perspectives of success	A student's view of what it means to be successful/a parent's view of what it means for their child to be successful
	Attendance	Being in classes
	Completing studies	Finishing school/graduating from uni
	Feeling good	Feeling happy and fulfilled
	Getting good grades	Doing well academically
	Helping others	Helping other people
	Personal accomplishment	Feeling a sense of achievement
	Self-improvement	Getting better and better at something over time
	Studying further	Going to TAFE/Uni
	Trying hard	Putting effort into things
	Purpose of education	A student's/parent's view of what the purpose is of education/what is important in education
	Attendance	Being in classes
	Connections with others	Relationships and socialising
	Discover strengths	Discovering what you are good at
	Good grades	Doing well academically
	Guidance	Getting help navigating life
	Health	Playing sport and learning how to be healthy
	Identity formation	Developing certain characteristics
	Become a good person	Being a good, ethical person
	Become confident	Being a confident person
	Learning	Developing one's knowledge and understanding

Theme	Code	Description
	Hands-on learning	Learning through experience
	Indigenous history	Learning about Indigenous history
	Knowledge acquisition	Gaining knowledge/becoming smarter/having a better understanding of how things work
	Pathway	A stepping stone to do what you want in the future
	Personal growth	Growing and developing as a person
	Skill development	Acquiring particular skills
	Communication skills	Learning how to communicate
	Get skills for a job	Getting skills that will help with a future job
	Life skills	Learning practical skills and life lessons
	People skills	Learning skills to navigate interactions with people
	Wellbeing	Mental health/being happy at school
	Sources of motivation	How a student feels motivated
	Achieve more than family	Achieving more than members of family achieved
	Competing with others	Doing better than other people at school
	Cultural responsibility	Feeling a sense of obligation towards Indigenous communities
	Desired job	Getting a job you want in the future
	Giving my best	Trying your hardest
	Values of education	What a student personally values in education
	Access to interests	Being able to do what a student enjoys e.g. hobbies/passions
	Access to opportunities	Being given the opportunity to pursue some desired future
	Broaden perspective	Expanding your view of the world and people
	Connection to Indigenous community	Being given the chance to connect with an Indigenous community
	Connections with others	Relationships with other people and socialising
	Guidance	Getting help navigating life
	Hands on learning	Learning through experience
	Learning	Knowledge and understanding
	Pathway to career	Stepping stone to some desired future job or career

Theme	Code	Description
Relation to family and community		How students relate to family and community
	Aspirations	Desired future relating to other people
	Connection to culture	Remain connected to culture
	Give back to community	Giving back to community
	Support a family	Hoping to start and support a family in the future
	Connection to culture	Staying connected to culture
	Enablers of success	How others help a student feel/be successful
	Connection to culture	Feeling connected to culture
	Support systems	Feeling supported by friends, family, teachers, mentors, community
	Inspiration	The ways others inspire a student
	Be determined	Wanting to be a determined person
	Be strong	Wanting to be strong
	Role models	Learning from examples
	Perspectives of success	What success means to a student
	Helping others	Being of use to other people
	Purpose of education	What a student believes is important in education/thinks the purpose is as it relates to others
	Connections with others	Socialising and relationship building
	Guidance	Getting help with navigating life
	People skills	Learning ways to navigate interactions with people
	Sources of motivation	Who a student gets motivation from
	Competing with others	Wanting to do better than other people at school
	Cultural responsibility	Feeling a sense of obligation to help Indigenous communities
	Family	Feeling grounded by family
	Giving back to community	Wanting to help others and give back to community
	Values of education	What a student personally values about education as it relates to others
	Achieve more than family	The chance to do more than their family did
	Connections with others	Socialising and relationships
	Guidance	Getting help navigating life
	Indigenous community	Being connected to an Indigenous community
	People skills	Being able to navigate interactions with people

Theme	Code	Description
Relation to self		How a student relates to themselves
	Aspirations	A particular desired future or state
	Achieve goals	Reaching your goals
	Be happy	Feeling fulfilled
	Career	Career aspirations
	Get job	Get a job
	Good income	Have enough money to do what you want
	Connection to culture	Wanting to maintain a connection to culture
	Family	Aspirations relating to family
	Achieve more than family	Wanting to achieve more than your family did
	Support a family	Wanting to start a family and support them
	Give back	Wanting to give back in the future
	Give back to community	Wanting to give back to community in the future
	Give my best	Trying your hardest in what you do
	Identity formation	Wanting to have certain characteristics
	Be a good person	Wanting to be a good, ethical person
	Be a leader	Wanting to become a leader
	Be confident	Wanting to become confident
	Be determined	Wanting to be determined
	Be strong	Wanting to be strong
	Pursue chosen path	The chance to pursue a particular desired future
	Studies	Aspirations relating to studying
	Finish studies	Finish school/graduate from Uni
	Get good grades	Get good marks at school
	Learn	Become more knowledgeable and have a better understanding of how things work
	Study further	Go to Uni/TAFE after school
	Travel	Wanting to go travelling in the future
	Enjoyment in education	What a student enjoys about their education
	Access to interests	Being able to do things you're interested in/passionate about
	Connections with others	Relationships and socialising

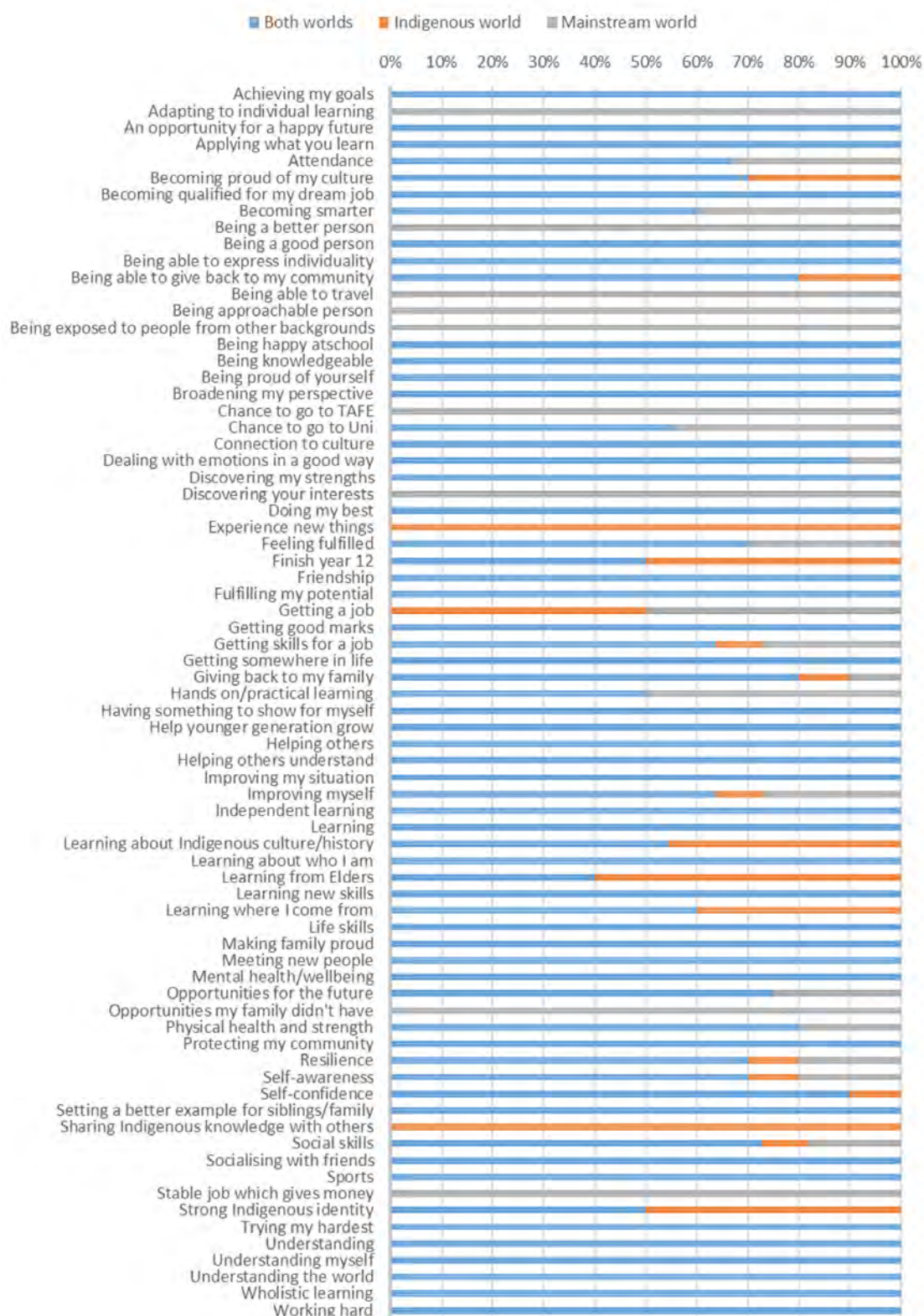
Theme	Code	Description
	Hands-on learning	Learning through experience
	Learning	Becoming more knowledgeable/having a better understanding of how things work
	Indigenous identity	The importance of a student's Indigenous identity to them
	Feel proud	The chance to feel proud of your culture
	Know where I come from	Getting the chance to know where you come from
	Strong Indigenous identity	Developing a strong sense of your Indigenous identity
	Learning	How a student relates to learning
	Culture	The importance of learning about culture
	Indigenous culture	Learning about Indigenous culture
	Where I come from	Learning where you come from
	Experience new things	Learning through new experiences
	Understanding	Being able to understand how things work
	Motivation	What motivates a student
	Desired job	Pursuing a desired job in the future
	Give my best	Putting in effort to things you do
	Role models	Being like a certain person
	Purpose of education	What a student thinks is important in education/what the purpose is of education
	Become a good person	To become a good, ethical person
	Develop confidence	To develop confidence
	Discover strengths	To discover your strengths
	Get skills for a job	To get skills for a job
	Health	To know how to stay healthy and strong
	Pathway	To get to a certain desired future
	Personal growth	To grow and develop as a person
	Wellbeing	To be happy, have good mental health, and feel fulfilled

Appendix Table B: Frequency and source of concepts included in student diagrams

Concepts	Source	Salience
1 Learning about Indigenous culture/history	Literature review	100%
2 Becoming proud of my culture	Literature review	100%
3 Being able to give back to my community	Literature review	100%
4 Learning where I come from	Literature review	100%
5 Strong Indigenous identity	Literature review	100%
6 Learning from Elders	Literature review	100%
7 Dealing with emotions in a good way	Literature review	100%
8 Getting skills for a job	Literature review	100%
9 Self-confidence	Literature review	100%
10 Learning new skills	Literature review	100%
11 Giving back to my family	Literature review	100%
12 Self- awareness	Literature review	100%
13 Resilience	Literature review	100%
14 Becoming smarter	Literature review	100%
15 Improving myself	Literature review	100%
16 Physical health and strength	Literature review	100%
17 Social Skills	Literature review	100%
18 Feeling fulfilled	Literature review	100%
19 Chance to go to Uni	Literature review	90%
20 Achieving my goals	Interview	80%
21 opportunities for the future	Interview	40%
22 helping others	Interview	40%
23 Friendship	Interview	30%
24 Attendance	Interview	30%
25 mental health/wellbeing	Interview	30%
26 Getting a job	Interview	20%
27 Learning	Interview	20%
28 life skills	Interview	20%
29 Adapting to individual learning	Interview	20%
30 doing my best	Interview	20%
31 Finish year 12	Interview	20%
32 hands on/practical learning	Interview	20%
33 Being a good person	Interview	20%
34 Connection to culture	Interview	10%
35 Being able to express individuality	Interview	10%
36 Having something to show for myself	Interview	10%
37 Being exposed to people from other backgrounds	Interview	10%
38 Opportunities my family didn't have	Interview	10%
39 Applying what you learn	Interview	10%
40 Trying my hardest	Interview	10%
41 An opportunity for a happy future	Interview	10%
42 Being approachable person	Interview	10%
43 Being a better person	Interview	10%
44 Broadening my perspective	Interview	10%
45 Independent learning	Interview	10%

Concepts	Source	Salience
46 learning about who I am	Interview	10%
47 getting somewhere in life	Interview	10%
48 setting a better example for siblings/family	Interview	10%
49 Improving my situation	Interview	10%
50 Chance to go to TAFE	Interview	10%
51 discovering my strengths	Interview	10%
52 understanding myself	Interview	10%
53 Fulfilling my potential	Interview	10%
54 Helping others understand	Interview	10%
55 understanding the world	Interview	10%
56 Understanding	Interview	10%
57 Being knowledgeable	Interview	10%
58 Becoming qualified for my dream job	Interview	10%
59 Being able to travel	Interview	10%
60 Stable job which gives money	Interview	10%
61 Sports	Interview	10%
62 Help younger generation grow	Interview	10%
63 wholistic learning	Interview	10%
64 Experience new things	Interview	10%
65 Protecting my community	Interview	10%
66 Working hard	Interview	10%
67 Getting good marks	Interview	10%
68 Socialising with friends	Interview	10%
69 Meeting new people	Interview	10%
70 Being happy at school	Interview	10%
71 Sharing Indigenous knowledge with others	Interview	10%
72 Being proud of yourself	Interview	10%
73 Making family proud	Interview	10%
74 Discovering your interests	Interview	10%

Appendix Table C: Distribution of concepts in 'Indigenous world', 'Both worlds' and 'Mainstream world'



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100 Botany Rd Alexandria NSW 2015 Australia
+61 2 9310 8400 aurorafoundation.com.au

