

Identifying themes for student re-engagement: The Ice Factor Challenge

Scott John Thompson

This thesis is submitted in partial fulfilment of the Honours degree of Bachelor of Psychology

School of Psychology
The University of Adelaide
October 2018

Word Count 8996

Table of contents

Table of contents.....	1
ABSTRACT.....	3
Declaration.....	4
Acknowledgements.....	5
CHAPTER 1: INTRODUCTION.....	6
1.1 Background.....	6
1.2 The reality of leaving school early.....	7
1.3 Risk Factors.....	8
<i>1.3.1 Student Engagement.....</i>	<i>8</i>
<i>1.3.2 Academic Performance.....</i>	<i>9</i>
<i>1.3.3 External Influences.....</i>	<i>10</i>
1.4 Protective factors and intervention strategies.....	12
1.5 The Ice Factor Challenge.....	14
1.6 This Current Study.....	16
CHAPTER 2: METHOD.....	16
2.1 Theoretical Framework.....	16
2.2 Participants and recruitment.....	18
2.3 Procedure.....	19
2.4 Analytic Approach.....	20
CHAPTER 3: RESULTS.....	21
3.2 Thematic overview.....	21
3.3 Ice hockey levels the field.....	22
<i>3.3.1 All inclusive.....</i>	<i>23</i>
3.4 Team is the vehicle.....	23
<i>3.4.1 Re-identification.....</i>	<i>24</i>
<i>3.4.2 Relatedness.....</i>	<i>24</i>
<i>3.4.3 Interactive classroom.....</i>	<i>25</i>
<i>3.4.4 Transferability to life.....</i>	<i>26</i>
3.5 Quality not Quantity (mentorship).....	27
<i>3.5.1 Individual focus and trust.....</i>	<i>27</i>
<i>3.5.2 Rapport.....</i>	<i>28</i>

3.5.3 <i>Expectation and Support</i>	29
3.5.4 <i>Peer mentorship</i>	30
3.6 Environment is Key.....	31
3.6.1 <i>Belonging</i>	32
3.6.2 <i>Community support</i>	32
3.6.3 <i>External opportunities</i>	33
3.7 Beneficial student outcomes.....	33
3.7.1 <i>Changing mindset and re-identification</i>	34
3.7.2 <i>Behavioural change</i>	35
3.7.3 <i>School motivation</i>	35
3.7.4 <i>Academic performance</i>	36
CHAPTER 4: DISCUSSION	37
4.1 Overview.....	37
4.2 Implications.....	39
4.3 Strengths.....	39
4.4 Limitations and future research.....	40
4.5 Conclusions.....	41
References	42
Appendices	50

Abstract

High school or secondary retention rates have been the subject of many studies over several decades. The potentially negative future outcomes associated with early disengagement from high school are known to affect individual, family and broader community levels. Research has generally supported the view, that the causes of early school leaving are complex and biopsychosocial in nature and that there are opportunities to provide interventions at important phases in young people's development or school career. This current study qualitatively explores an Australian based multicomponent intervention program, known as the "Ice Factor Challenge" (IFC). The IFC is designed to assess disadvantaged or struggling high school students and re-engage them with their schooling and peers. The broad aim of this study was to identify 'how' and 'if' the program benefits its participants. Eight semi structured interviews of the program's "key stakeholders" were conducted to investigate this topic. Inductive thematic analysis was used to analyse key themes and construct a bottom-up narrative of the program's processes and outcomes. Four key themes were identified and converged to produce what key stakeholders perceived as the IFC's beneficial outcomes for its students. In summary, the results indicated that the IFC was positively assessed by respondents. Furthermore, according to participants, IFC stated goals and known literature, the IFC appears to be somewhat successful in re-engaging its students into school and society, through IFC derived beneficial student outcomes.

Declaration

“This thesis contains no material which has been accepted for the award of any other degree of diploma in any University, and, to the best of my knowledge, this thesis contains no material previously published except where due reference is made. I give permission for the digital version of this thesis to be made available on the web, via the University of Adelaide’s digital thesis repository, the Library Search and through web search engines, unless permission has been granted by the School to restrict access for a period of time.”

Scott John Thompson

October 2018

Acknowledgments

Firstly, I would like to express my thanks to Dr Loraine Lim, my external supervisor, who is a title-holder with The University of Adelaide. Without her organising this opportunity and her guidance, I would have never been able to be a part of such a great project. Secondly, my internal supervisor to The University of Adelaide Dr Paul Delfabbro, for being very approachable, readily available, supportive and easy to relate to. Also, to my family and friends for enduring me, helping me and being flexibly supportive, especially through demanding times. Finally, to Marie Shaw and all the members of the Ice Factor Challenge (IFC). Thank you for taking part in this study and allowing me to immerse myself in your environment. Without you and your willingness to participate and make available your facilities, none of this would have ever been possible. May there be many more studies on the IFC to come

Chapter 1: Introduction

1.1 Background

In almost every westernised education system, there is a research interest in the factors that contribute to early school leaving and poorer high school retention rates. The Year 7 to 12 apparent retention rate recorded for Australia in 2017 was 84.8% (Australian Bureau of Statistics, 2017). Although this rate is reasonably positive by international standards, the absolute number of children who do not complete school is still large. Such children are at greater risk of poorer longer-term outcomes, including fewer employment opportunities, lower pay and reduced skills necessary for more complex work. In general, while there is a significant body of work which has examined the predictors of school retention, less work has been directed towards understanding whether there may be strategies or targeted intervention programs, that may assist students at greatest risk of not completing school. This thesis project is an analysis of the Ice Factor Challenge (IFC). The IFC is a multicomponent intervention program, designed to keep “at risk” students in school whilst promoting positive future life outcomes. Although anecdotal evidence via its website suggests that the IFC is both well received and successful in relation to these areas (Ice Factor, 2018), there has so far been little research conducted to understand what factors appear to contribute to its success. Accordingly, as a first step towards developing a more detailed longitudinal and quantitative assessment of its contribution, a dedicated qualitative project was undertaken to provide insights into the nature of the program; evidence for its success; and what factors appear to contribute to better outcomes. The following sections provide a review of literature relevant to the importance of the IFC, an overview of the program and then a summary of the principal research aims.

1.2 The reality of leaving school early

The negative consequences of early school leaving are well documented. For example, in the context of an individual student, it is known that those who leave high school early are at greater risk of unemployment (Stanard, 2003). Such young people are less likely to find work (Lansford, Dodge, Pettit and Bates, 2016), and often end up living in lower socio-economic conditions and have poorer overall health (Campbell, 2015, Lansford, Dodge, Pettit and Bates, 2016). Early school leaving is also associated with a higher probability of engaging in criminal activities, increased illicit drug use, higher arrest rates and becoming dependant on welfare or government health programs (Lansford, et al., 2016). At a societal level, early school leaving therefore creates extra pressure on both state and national governments and is a contributor to poorer economic growth due to the impact on taxation revenue and productivity (Belfield and Levin, 2007; Catterall, 1987, Martin, Tobin and Sugai, 2003, Hayes, Nelson, Tabin, Pearson and Worthy, 2002).

All of these problems are known to be interdependent and mutually reinforcing (Christle, Jolivette and Nelson, 2007, Rumberger, 2011; Swanson & Editorial Projects in Education, 2009, Thompson, 2008). For example, dropping out from high school may lead to depression, due to a compounding lack of school engagement, poorer academic achievements and increased delinquency (Wang and Fredricks, 2013). In turn, depression is linked to poorer life outcomes, such as lower post-high school academic achievements (Hysenbegasi, Hass, and Rowland, 2005), instability in relationships (Whitton and Whisman, 2010), suicide (Jeon, 2011) and poorer work performance (Harvey, Glozier, Henderson, Allaway, Litchfield, Holland-Elliott, 2011). These observations underscore the necessity of approaching this topic from a biopsychosocial (Thompson, 2008) or ecological framework (Bronfenbrenner, 2009), that understands the complex interplay between individual, environmental and social variables.

1.3 Risk Factors

According to Hammond, Linto, Smink, Drew, National Dropout Preventions Center and Communities in Schools (2007) risk factors can be classified across four multidimensional levels of influence. These levels of influence are interdependent, and can be compounded by biopsychosocial (Thompson, 2008) and demographic variables. Consistent with the Ecological Systems Theory (Bronfenbrenner, 2009), any overarching risk factor (“student engagement” or “academic performance”) is likely to be influenced by a range of individual, family, school and community variables. Therefore, it is recognised that singular causation is hard to infer and that it is better to adopt an approach that recognises the likelihood of multiple risk factors are present (Freeman, Simonsen, McCoach, Sugai, Lombardi and Horner, 2015, Hammond et al., 2007, Neild, Stoner-Eby and Furstenberg, 2008). As a result, studies vary in what factors are identified, often due to the demographically diverse nature of the studies (Crowder and South, 2003, Rumberger, 1995). At an individual level, “high risk behaviours”, “high risk demographic characteristics”, “early childhood responsibilities” and “educational stability”, are all associated with increased risk of drop-out (Hammond et al., 2007, p. 11-13). However, the two most prevalent predictors in literature are best defined as “school dis-engagement” and poor “academic performance” (Bowers et al, 2013, Fredricks, Blumenfeld and Paris, 2004, Hammond et al., 2007, Rumberger, 2011, Wang and Fredricks, 2013).

1.3.1 Student Engagement

“School engagement” or “disengagement” can be best understood as a multidimensional construct (Wang and Fredricks, 2013). For example, underpinning “school engagement”, as constructed in Hammond et al., (2007), are academic, behavioural, psychological and social factors. Of particular interest in this study are psychological factors which are known to have behavioural, emotional and cognitive elements (Fredricks, Blumenfeld and Paris, 2004, Jimerson, Campos and Greif, 2003). *Behavioural engagement*

may involve reasoning of participation in academic activities or absenteeism (Archambault, Janosz, Morizot and Pagani, 2009, Fredricks et al., 2004). *Emotional engagement* may involve self-identification of oneself with a school or class group or achieving a sense of belonging and appreciation of success in school outcomes (Voelkl, 1997). *Cognitive engagement* refers to how much time and effort students put into their school work (Archambault, Janosz, Morizot and Pagani, 2009). Consequently, “School engagement” can be psychologically understood as how students think, feel and act (Wang and Fredricks, 2013). For example, in a longitudinal study by Wang and Fredricks (2013) involving 1,272 ethnically diverse high school students, the results showed that students with lower behavioural and emotional engagement at school, had increased delinquency and substance use over time and this, in turn, predicted the likelihood of high school drop-out. A multi-directional relationship between behavioural engagement, emotional engagement and problem behaviour was found. The evidence demonstrated that psychosocial factors can have a major influence on student engagement and school retention.

1.3.2 Academic Performance

In a similar vein, researchers have identified that academic performance is also influenced by a range of interconnected risk factors. These can also be categorised across individual, family and school levels and are further moderated by demographic, psychological and social dynamics. For example, a study of Philadelphia’s public-school students in the 8th and 9th grade found low attendance, poor grades in core courses and being too old for one’s grade; predicted negative academic performance outcomes (Neild and Balfanz, 2006). Overall, 80% of students categorised as “at risk”, eventually dropped out of high school (Burrus and Roberts, 2012). A longitudinal study by Rumberger (1995) considered the same issue from both individual and institutional (school) perspectives. The study supported the view that the strongest individual predictor for school drop-out was grade

related. At the same time, at an institutional level, the individual magnitude of the effect was subject to demographic variances (race, gender, socioeconomic status, family environment) (Rumberger, 1995). A follow up to the longitudinal study further examined the social influences contributing to academic performance findings (Rumberger and Larson, 1998). Misbehaviour and absenteeism predicted both instability for remaining at a certain school with family, and school factors were found to compound the effect. This had a direct impact on school retention. The study concluded that school mobility (moving around) and low socioeconomic status all influenced individual stability and increased the risk of leaving school early. Notably, the results of this study have since been replicated within a similar population in a subsequent study by Crowder and South (2003). As with “student engagement”, the “academic performance” the risk construct is conceptually and causally complex. Moreover, the two seem inextricably linked psychosocially in that if students are not engaged, then they are unlikely to perform well academically. Likewise, a student with poorer academic performance is more likely to leave school prematurely.

1.3.4 External influences

It is also important to consider in more depth the role of adult and peer engagement. In support of this view, forty-seven percent of student participants in a focus-group study by Bridgeland, Dilulio, and Morison (2006) suggested they lacked interest in school. Furthermore, it was this lack of interest that influenced their decision to leave. Lack of positive adult engagement was also a recurring finding in Bridgeland et al (2006), as 69% of the students claimed that adults in their lives did not expect them to perform well. The study concluded that low adult expectations contributed to their decision to leave. A further follow-up study supported these findings (Bridgeland, Dilulio and Balfanz, 2009). It indicated that only 32% of the surveyed high school teachers agreed with the following statement, “We should expect all students to meet high academic standards and provide extra support to

struggling students to help them meet those standards” (Bridgeland, Dilulio and Balfanz, 2009, p. 22). The argument is that teachers’ expectations may have a psychological impact on student grades, academic motivation, engagement and consequently, the likelihood of them leaving school early (Davis and Dupper, 2004).

Another important psychosocial factor is the influence of reciprocal peer relationships in their role in helping students adjust to school difficulties (Buhs et al., 2006, Ladd, 1990, 2003). Drawing on the principles of Self-Determination Theory (SDT), Ricard and Pelletier (2016) studied 624 high school students and investigated both students’ basic psychological support from parents and reciprocal friendships to predict academic motivation. It was theorised that academic motivation would increase when basic psychological needs (autonomy, competence and relatedness; Deci and Ryan, 1985, 2000) were met through positive parent and teacher involvement. The increase of academic motivation was then expected to increase rates of retention. In the case of this study, none of the predictors (psychological support, reciprocal friendships or academic motivation) positively predicted high school drop-out. As a result, Ricard and Pelletier (2016) concluded the grounds for positive prediction was possibly beyond the explanatory capability of the SDT. Instead they concluded that lack of reciprocal friendships and basic psychological support were significant negative predictors of high school drop-out.

1.4 Protective factors and intervention strategies

Although the literature relating to interventions is sparse, nonetheless several prevention practice guides for high school drop-out have been published (Balfanz, Fox, Bridgeland and McNaught, 2009; Dynarski et al., 2008; Hammond, Linton, Smink and Drew, 2007; Schargel and Smink, 2001). The majority of these guides are based on expert opinion and known evidentially based best practices (Freeman and Simonsen, 2015). A recent systematic review of drop-out intervention literature by Freeman and Simonsen (2015) was subjected to a stringent inclusion/exclusion criterion. It analysed 32 articles categorised into 11 policy and 21 practice intervention strategies drawn from both psychological and educational databases. The results indicated that multicomponent intervention practices which had been used for 45% of the studies yielded positive results by decreasing high school dropout rates. A multicomponent strategy included at least two factors within four categories. These consisted of academic, behavioural, attendance strategies and school organisation/structural changes. The only effective single component strategies found to reduce drop out and these were either targeted academic interventions or school-level organisational components. Of 32 studies, seven successfully recorded significant increases in school completion, with decrease in dropout rates (Furstenberg and Neumark, 2007, Meyer, 1984, Mezuk, 2009, Porowski and Passa, 2011, Sinclair, Christenson and Thurlow, 2005, Solomon and Liefeld, 1998 and Stern, D., Dayton, Paik and Weisberg, 1989). These results suggest, that intervention programmes targeting multiple components of risk, particularly within small groups of high school students, may be the most effective (Freeman and Simonsen, 2015). This observation is generally consistent with the literature reviewed, which draws attention to the interconnected nature of psychosocial risk factors. Freeman and Simonsen (2015) also note that these kind of multicomponent intervention strategies are still relatively inadequately tested in literature and need to be more thoroughly investigated.

Evidence of further protective factors can be seen through revisiting the study by Ricard and Pelletier (2016). Both the lack of basic psychological needs and reciprocal relationships were negative predictors of school dropout. Whilst a positive relationship was not found to predict retention, parent and teacher support of a student's basic psychological needs (autonomy, competence and relatedness) was found to increase school adjustment, persistence and performance. Results indicate that effective psychosocial support, through friends and important adult figures can positively influence the negative effects of school adjustment and motivation difficulties.

Orpinas, Raczynski, Peters, Colman and Bandalos (2015) recruited a similar racially diverse sample of 675 students. Students were then divided across a categorisation continuum. The continuum spanned between "well adapted students" to "severe problem students" (p. 585-586). Well adapted students were characterised as having low externalizing/internalizing behavioural and school problems, with high leadership, social and study skills. Severe problem students were considered to have the inverse characteristics. Results indicated a significant difference in drop-out prediction across the continuum, with drop-out rates most prevalent for the "severe problem students". Importantly, it was found the development of leadership skills, study skills and social skills, were all shown to promote the creation of adaptive personality traits. This consequently reduced school dropout (Orpinas, Raczynski, Peters, Colman and Bandalos, 2015), which suggests that these skills acted as psychosocial buffer or protective factors. As with basic psychological needs and reciprocal friendships (Ricard and Simonsen, 2015), an intervention of this nature can be effectively administered through quality mentorship, family, teacher and adult support. Thus, one can decrease problem behaviour and absenteeism, whilst increasing positive attitudes (Converse and Lignugaris/Kraft, 2008), social skills, self-esteem and school connectedness (Karcher, 2004). However, if either mentorship (Karcher, 2004), parental or teacher support

(Bridgeland, 2006) is not delivered effectively, it can result in the opposite effect. Therefore, quality should always be elevated over quantity in regard to application.

In summary, the literature seems to suggest that multicomponent intervention strategies are most effective. These strategies target small groups of students (Freeman & Simonsen, 2015) and promote positive life skill development (Orpinas, Raczynski, Peters, Colman and Bandalos, 2015). Skills are developed through mentorship, positive adult engagements (Karcher, 2004, Ricard and Pelletier, 2016) and reciprocal peer friendships, which support student basic psychological needs (Ricard and Pelletier, 2016). Psychosocial supportive measures of this kind seem to equip the students with the tools necessary to increase school motivation, engagement and academic performance. Given the presence of multiple and interrelated risk factors, it follows that interventions that target multiple factors are more likely to decrease school drop-out rates (Freeman, Simonsen, McCoach, Sugai, Lombardi and Horner, 2015, Hammond et al., 2007, Neild, Stoner-Eby and Furstenberg, 2008).

1.5 The Ice Factor Challenge

Established in 2005, the IFC's primary aim is to keep "at risk" students at school through its re-engagement strategies. Its secondary goal is in building vocational and life skills within a team environment (<http://www.icefactor.net/>). This is achieved through pairing Ice Hockey with educational tutorials, mentorship and practical application of learning. Some of the key focus areas include leadership, team work, respect, humility and ambition. It also includes some academic components. In particular, literacy and numeracy skills are improved through a range of stats keeping, newsletter writing, fundraising and development of promotional material. There are also scheduled events which integrate local business and community. These events are used for practical application components, for students to

experience and transfer skill sets in a real-world environment. The program can be recognised and used for SACE stage 1 and 2 study academic recognitions in Australia.

In 2005 a pilot program involving 15 students was undertaken through the collaboration of the South Australian Ice Sports Federation, the Adelaide Ice Arena, school communities and local businesses. According to its website (Ice Factor, 2018), based on its success it moved to its second phase in 2006 and grew to 8 schools. A recent newsletter (Ice Factor Program, 2016) reports the IFC has now grown to 15 schools (soon to be 17) and is continually gaining support from the community. They now employ a range of high-quality coaches and mentors, to support the students. The participating schools have self-reported an increase in school attendance and academic performance. In one case there was a loss of fifty percent of their team/students to traineeships, apprenticeships and permanent employment (Ice Factor, 2018). The program is now considering new alternative pathways to University and TAFE, through peer mentorship programs, networking and keynote speakers.

The IFC has the characteristics of a multicomponent intervention strategy as it targets many of the considered “at risk” intervention points. At a minimum, it fundamentally seems to target both “school engagement” and “academic performance” through the promotion and development of psychosocial protective measures and beneficial life skills. Quality mentorship, positive adult engagement and positive peer relationship engagement seem to be its chosen mechanism of delivery. Although self-reports and testimonials do record positive outcomes for students, there has been no official scientific study of any design, to understand what, how or why this is being achieved.

1.6 The current study

The aim of this study is to contribute to the broader literature and understand the mechanics of a dedicated multicomponent intervention program, designed to reduce student drop-out at high school level, in a South Australian setting. This study will adopt a qualitative approach, to explore “if” and “how” the program benefits its participants. It is believed that by doing so, this will provide a basis for further multimethodological and interdisciplinary studies. It is hoped that by better understanding the inner workings of the program, it would allow for reflection and eventually modification of specific strategies. This would, in turn, make the IFC more effective and efficient in its goal of engaging at-risk students and increasing their retention rates in school. Furthermore, in helping to establish an evidence base, it is hoped that this will strengthen the visibility and credibility for the program and help secure the external political and financial support needed for future growth.

Chapter 2: Method

2.1 Theoretical Framework

Throughout the literature review, outcomes as well as risk factors, were based on biopsychosocial (Thompson, 2008) and ecological (Bronfenbrenner, 2009) frameworks. These approaches were then positioned within a broader contextualist epistemological perspective that recognises the inter-dependency between different factors and the importance of understanding the context in which they exist. Contextualism, unlike positivist or empiricist approaches does not assume one singular straightforward relationship to “reality” (Braun and Clarke, 2013 p.31). Instead, contextualism emphasises the multitude of dynamic contexts in which a given proposition is valid or invalid (Mcguire, 1986). This can be best described as “the human act in context” (Tebes, 2005, p.216). It is the role of science to

determine which of these propositions are determined to be “true” within the identified context (McGuire, 1986; Tebes, Kaufman & Connell, 2003). Contextualism does not give preference to any single method of inquiry (Rosnow and Georgoudi, 1986) as it is argued that no single method leads to truth (McGuire, 1986). It instead proposes a multitude of different and complimentary theoretical positions and methods should be recognised and considered in ascertaining the “truth” (Jaeger and Rosnow, 1988). Ultimately, this implies that a pluralism of theories and methods can have a valid role in advancing scientific knowledge (Jaeger and Rosnow, 1988, Tebes et al., 2003). Therefore, a contextualist approach offers several advantages for this current study, both in understanding and in taking an analytic approach. First, it allows for correct conceptualisation of the dynamic and interconnected nature of influence, risk and outcome within “student drop-out” research, as it allows for known variances in individual, family, societal and demographic circumstances. Second, it allows one to retain the subjectivity of participant perception via the researcher, whilst retaining the element of ‘truth’ in the outcome. That is, all data is considered of equal importance and is considered relevant to understanding the nature of outcomes. Third, a contextualist approach allows for a possible multimethodological and interdisciplinary approaches to investigate the topic. Fourth, it therefore allows for interdisciplinary research of multiple designs to be built on the foundation of scientific data created. Fifth, contextualism is suited to this type of qualitative design (Tebes, 2005).

Qualitative research also actively acknowledges the role and interaction between all participants in the study. Therefore, it is important to understand the background and perceptual filters relevant to the researcher. In line with the theoretical framework of this study, the researchers ontological view is largely post-positivist, with an epistemological stance of contextualism. Although this researcher’s undergraduate degree is in Psychological Science, an equal amount of Philosophy of Science and Ethics were paralleled within his

degree. Consequently, a biopsychosocial understanding of health science is the researcher's primary scientific paradigm. Being a high-school dropout, a father, having a lengthy military career and having an interest in sports and mentorship, all lead to the attraction of undertaking this study. Whilst there is some personal interest in the study topic, this was not seen as problematic. Extra care was taken within question design to negate possible framing effects. Constant reflexivity, supervisor checks and an audit trail were used to monitor researcher influence and logic within the study. Triangulation of data through an external supervisor, was also used to identify and verify common themes and negate major researcher biases.

2.2 Participants and recruitment

A purposive sampling method for recruitment was applied. Initial contact with the participants was undertaken through the Ice Factor staff due to confidentiality and privacy considerations. At the latest stages of recruitment, snowball sampling occurred for the final three participants. For inclusion in this study participants had to be over the age of 18, speak fluent English and be classified as a "key stakeholder" of the IFC. A key stakeholder was identified as someone that was directly involved in the program in some supportive capacity. Such people could include: teachers, mentor, staff or coach (past or present). Allowances were made for overlap between categorisations. This was a pre-identified expectation due to the mixture of voluntary and paid nature of positions held within the IFC. Fluent English was also a pre-requisite. Participants were excluded if they were under the age of 18 because of the limited time-frame for the project. A total of ($N = 8$) interviewees participated in the study. Participants included 3 females and 5 males and ranged from 19-66 years of age. All participants self-reported categorisations in line with those identified as 'key stakeholders' of the IFC. Of these, there were four categorisation of position overlaps. This was due to participants providing self-identification of dual positions held within the program (For

example: teacher/team manager or staff/mentor). Furthermore, one identified as a past mentor and another as a past student. The past student at the time of the interview identified in a mentor position. Interviewee involvement with the program ranged from 1 to 13 years. Thirteen years was the maximum possible as this was the time when the program was founded.

2.3 Procedure

Ethics approval was received via The University of Adelaide Human Ethics Committee (16th of May 2018). The eight face to face semi-structured interviews were conducted at a time and place convenient for the interviewee. All interviews were conducted by the researcher, over the period of the 3rd to the 22nd of August 2018. Interview times ranged from 18 to 54 minutes with the average length being 30 minutes. This fell within the initial 60-minute allowance communicated to the participants. In retrospect, data saturation was achieved by the 5th interview, with no new perspective themes emerging (Baker and Edwards 2012). A continuation of interviews for the final three participants was conducted to ensure a diverse range of themes had been collected, via the perspective of all stake holder categorisations. Participants were provided with an information sheet prior to meeting for the interview time. This was either given directly or via email and clarified the nature and conduct of the research (see Appendix A). A consent form was signed and returned prior to the commencement of the interview (see Appendix B). Verbal consent was again obtained within an allocated pre-interview question time, as was an explanation of the anonymity process at the transcription/coding phase. All participants indicated they were satisfied with the level of explanation and consented to be audio recorded. A voluntary demographic data sheet was also presented prior to commencement (see Appendix C). All interviewees agreed to fill out the demographic information. Interviews consisted of a series of open-ended questions to prompt the interviewee. Elaborative questions were used to follow up and clarify

points of interest. Questions were asked flexibly, and order was dependant on the direction taken by the interviewee (see Appendix D). Post interview, periods of researcher reflection were given for each of the interviews. Questions were then slightly adapted, added or omitted, as adaptive modification of questioning is the best accepted practice in qualitative studies (Braun and Clarke, 2013, Britten 2006). Audio recordings were then manually transcribed verbatim in a progressive manner. All participant data was at this stage rendered anonymous by merit of allocating an arbitrary participant code. Line numbers were also allocated to allow for cross checks of extracts back to the data set. The anonymous transcriptions were then sent via email to each participant. This was done to allow for both ethical confirmation of adequate anonymity and participant validation of the data (Braun and Clarke, 2013). All participants responded being satisfied with the content.

2.4 Analytic Approach

Inductive thematic analysis was undertaken on the data as guided in Braun and Clarke (2013). Inductive thematic analysis is a bottom up process which can either be, or not be shaped by theory (Braun and Clarke, 2013). Furthermore, it is generally always influenced or shaped in some way by the researcher's standpoint, knowledge and epistemology (Braun and Clarke, 2013, Ch 2, table 8.1). One of the strengths of thematic analysis is the fact it can be used to answer all most any kind of research question or data which is ideal for explanation (Braun and Clarke, 2013). The bottom up process was highly important to this design, due to the exploratory and foundational research requirements of this study. In particular it was the aim to use an analytic approach that allowed the participant data to tell a story regarding the IFC inner processes. Data were therefore completely coded systematically after the conduct of the final interview. Codes were then re-read, cross checked against transcriptions and the audio. This allowed for the researcher to take note of any inconsistencies and familiarise himself with the data set. This also allowed for identification of anything and everything of

relevance to answering the research questions (Braun and Clarke, 2013). Codes then converged and collated into relevant themes and subthemes. Although there was high frequency of responses pertaining to certain codes, prevalence does not necessarily mean importance (Braun and Clarke, 2013). Instead, themes were organised by the researcher in chronological relevance to the underlying processes the IFC. Also, to enhance trustworthiness and rigour (Braun and Clarke, 2013) a second researcher analysed a whole transcript and codes to check data against emerging themes. There were only minor discrepancies that were resolved via discussion, resulting in the consensus of the final themes. A thematic map was produced to visualise the relationships between the themes and sub themes (see Appendix E). A report of the analysis (see results) was then produced, using extract samples to describe the themes and their relationship to the IFC in a narrative style report. Finally, to enhance rigour, an audit trail was kept (Tracey, 2010). This comprised of both researcher intellectual developments (including personal, logical and reflective processes) and the physical developments of the study.

CHAPTER 3

Results

3.2 Thematic Overview

The data converged to form four key overarching themes. Each overarching theme represented a central organising concept. Each central organising concept was identified to contribute to the success of the program. Within each of the four overarching themes was the presence of multiple sub-themes. Sub themes represent participant explanation of the multicomponent interventive processes used within the IFC. Themes via the influence of underpinning sub-themes indicate participant perceptions of “how” the IFC benefits its

students. The data also revealed five beneficial student outcomes, based on the perceptions of the interviewees and their view of how the IFC had influenced the participants in positive ways. A thematic map was produced to illustrate the structure and relationship of the themes, sub themes and beneficial student outcomes (See Appendix C).

3.3 Ice Hockey levels the field

As a generalisation, students entering the program were perceived by interviewees as extremely diverse and were subject to different risk factors (e.g. negative home environment, ethnic diversity, lack of psychological support from adult relationships). These factors were identified as contributing to management problems in the school environment and the reasons why school disengagement may occur. Ice hockey was identified as being a largely unfamiliar sport in Australia, so all students were very much equal upon arrival in the program. This meant that any pre-existing differences or diversity was not relevant to their participation and that the IFC provided ‘a level playing field’ to foster future development. This was perceived as being the critical first step in the IFC process and student re-engagement.

“A unique aspect of ice hockey um that no other sport.. bearing in mind I have played, been a very high-level sports person myself, um it opens up, is that it’s a minor sport everyone is as the expression is, “is crap at it”. Nobody can do it so it’s a level playing field, and the way we structured the program was every child would have equal participation”. (Participant 3, lines 72-75)

3.3.1 All inclusive

The idea of a ‘clean slate foundation’, was deemed necessary for the commencement of building a new set of values, relationships and life skills in which the disengaged student was lacking. This would then empower the students psychologically to engage with the program and make the behavioural changes needed to positively influence their lives. By reinforcing equality of participation and respect, the clean slate concept is used as a vehicle to create an ‘all inclusive’ environment. The all-inclusive environment is seen as positively reinforcing and rectifying misplaced values that may exist amongst the broader population. This equal environment is seen as the first step to positively reshaping student mindset.

“We have had an increase in African and Middle Eastern new arrivals, as we call them, and I see that as extremely enriching because err to sit there and hear, to go round the class and say where have you come from Iran, Afghanistan, Syria, uh Guinea, Liberia it just blows me away. I think the richness of that culture, together not only breaks down any suggestion of um, division but most importantly, um it’s teaching understanding and that the diversity is enriching, it’s not uh robbing us of Australia or, or you know these other, stereotypical err attitudes, and it adds to the sense of generosity that we um spread amongst everybody”. (Participant 3, lines 301-309)

3.4 Team is the vehicle

Once the foundation is set, coaches, staff, mentors and team managers focus on psychologically building, empowering and enabling the students to overcome their individual life adversities. This is done by reidentifying, re-engaging, re-teaching and practically applying positive values, relationships and life skills into the student’s life. These skills are otherwise thought to be untaught, absent or lacking in the “at risk” student pre-existing

environment. ‘Team is the vehicle’ represents, the student relatable delivery methods in which IFC firstly engages then reshapes students. This team platform is believed to provide the structure, stability and relatability to teach students the IFC’s core values. Initial core values are taught surrounding the ideals one would expect to find in a team context (respect, persistence, team work, leadership, attitude, humility). This is perceived as creating an element of relatability for the student and seen as advantageous in comparison to the robotic nature of the school classroom environment. Therefore, IFC’s core values are taught in a flipped interactive classroom, tailor made to encourage student interaction. Classroom lessons are then practically applied on the ice rink through thematically driven training sessions. The outcome aim is to transfer learnt values and skills onto the ice rink, then into a broader life context. The purpose of this kind of skill development, is to provide the psychosocial protective factors to empower students to re-identify themselves, face their external life adversities and make the positive change needed for re-engagement.

3.4.1 Re-identification

The extract below captures the perception of the uniqueness, the team environment holds to the students. In this context, the team sport is directly associated with the “clean slate” outcome specific to Ice Hockey. This foundation in conjunction with the team vehicle, is perceived as essential to beginning the re-identification process. Ultimately the students have a chance to re-engage as something more, to become better version of oneself.

“It’s a team sport where as boxing is an individual sport, and a team sport enables a group to get an identity which means that they go into that group with a clean slate, and essentially a second chance going forward, an identity that they create, it’s not labelled by somebody else, they choose their own team name”. (Participant 3, lines 58-62)

3.4.2 *Relatedness*

The value of the team as an engagement vehicle is attributed to many things within the IFC. However, it is primarily perceived due to its relatability to the students, both individually and collectively. Being in a team allows for a small group focus, which enables them to connect and engage with the program on a deeper level. As reidentification takes place, an opportunity opens for the reinstallation and positive re-enforcement of a new set of values.

“There’s obviously the classroom sessions when they know they have to engage with it, and that they have to listen and they have to be, like mindful of and respect other people that are in there. But how they approach it is that they know that they’re a group, and they’re a team and so they not more, so like embarrassed as to giving the responses and things because the people here. It’s like a smaller group the nine of them they can be focused on and be like given the positive feedback straight away, which then motivates them to do better”.

(Participant 8, lines 54-60)

3.4.3 *Interactive classroom*

Working within the team vehicle is the ‘learning phase’. This has both theoretical and practical applications and begins the bottom up process of teaching the basic core values associated with ‘the team’. The classroom follows a set structure yet is flexible to suit any team’s current collective emotional, psychological and behavioural needs. In contrast to the student’s external school environment, a flipped interactive classroom is implemented. Learning is both thematically driven and progressively developed to parallel the school term. On the completion of learning a theme or value (respect, teamwork, ambition), lessons are then practically applied in a team environment on the ice. This allows for students to self-

reflect on their performances and encourages self-agency and self-growth, in contrast to just being told what to do.

“Instead of becoming a lecturer and us telling them what respect is, it’s ah, I think everyone knows what it means, but we just have an open discussion on what do you guys think the respect is? So we started in the classrooms and the big thing is, it comes from a discussion and not from someone telling them what it is, and then we kinda transfer a lot of these things on the ice”.

(Participant 1, lines 93-97)

3.4.4 Transferability to life

As the students mature and become engaged in the program, the focus turns to transferring the newly taught skills into protective factors for broader life applications. Thus, the focus is not on directly controlling isolated incidences of student life adversity, but indirectly empowering the students to overcome these adversities. Both hypothetical and practical life scenarios are taught in order transfer their newly learnt skills into their external life circumstances. This is done via both the collective teachings of the team vehicle and is then individually reinforced as required.

“I guess part of it is it helps kids through hard times too you, know we’ve had some kids really struggle through particular things and you know.. whether its um.. just personal life or you know definitely lots of personal issues, they’ve stuck with it and they’ve found a way to get through it because of the program”. (Participant 7, lines 487-490)

3.5 Quality not Quantity (mentorship)

Working simultaneously alongside and within the team vehicle are the mentors, coaches, staff and team managers. Although these roles are given different names, they overlap greatly in relation to how reinforcement, support, and expectations are applied. In particular, consistency is considered important and is derived from a collective belief that “at risk” students are lacking stability and guidance in their external relationships. Therefore, IFC staff concentrate on rectifying these inconsistencies, so there is an initial focus on building trust and rapport through consistency of quality adult interactions. Coaches and mentors are directly involved in both small group settings and are individually student focused when necessary. Respondents perceived that students consequently become more engaged and reciprocating and that this further enhances guidance through mentorship and role modelling. The style of mentorship very much imitates the stereotypical ‘sports coach’ or can be likened to authoritative parenting styles (highly demanding and highly supportive). This is thought to be necessary in the ‘quality’ adult interaction, that promotes positive student engagement and growth. At the later stages in the program, a peer mentorship or ‘leadership’ program is implemented for progressing students. This is primarily undertaken to reinforce what is taught, create positive peer interaction, greater ownership and goal setting, through peer role modelling. Ultimately it aims to produce the psychosocial support needed for student re-engagement in an intergenerational loop.

3.5.1 Individual focus and trust

At the forefront of the mentoring process was the interviewee’s belief for a necessity to re-establish trust with the students. This was deemed necessary to counteract the lack of positive adult interaction and guidance in student external circumstances. For trust to be successfully established, a quality mentor is described as someone that is willing to

individually connect and support IFC students. Generally, individual engagement was not initiated via the adult, unless deemed necessary for problematic behavioural intervention. Rather a quality mentor would be always readily available when approached by a student seeking guidance or emotional support. This allowed for the student to control the offset between established trust and their support needs. Gaining one's trust was perceived as a necessary precursor to establishing rapport. This was noted as especially critical to the newcomers of the program. As the following extract suggests:

“Yeah, when they first come in I see they don't trust anyone, I see them broken, err due to various reasons, no different to the way I was with a single parent, growing up I didn't have my mum so I could connect with that. Um ..definitely the product of the environment that they grew up in um, they didn't have any leadership, they didn't know what it was to work with others, very individual, um that's how I saw it at the start”. (Participant 5, lines 44-48)

3.5.2 Rapport

How rapport is established by IFC mentors can be individually variable. This due to personality and social differences in both students and staff. However, consistency and connectivity through shared hardship is seen as essential to building rapport. As with using the 'team vehicle' to install student relatability, coaches, staff, mentors and team managers establish individual and collective rapport through a similar process. The below extract highlights the necessity for both consistency and connectivity to establish rapport. The amount of connectivity in this sense, is dependent on the student's perception of how “real” a staff member is. A higher sense of mentor connectivity by the students, leads to an increased amount of rapport.

“I think the honesty in looking at them in the eyes and knowing that I am not talking shit really counted with them and once they could see through that I, that’s when I gained their trust. And then obviously, backing it up week after week I wasn’t someone that went there for a short period of time and then left, I was there for two and a half years and so that’s for me, what cemented the trust. But, you know truth mate, honesty, they wanted to see I was just as real as them, that’s all”. (Participant 5, lines 55-60)

3.5.3 *Expectation and Support*

Once rapport is established full mentorship and role modelling can take effect. Critical to the success of both changing student mentality and behaviour is the type of mentorship is implemented. In case of the IFC staff, the style of both individual and small group mentorship is highly demanding yet highly supportive. According to study participants, these approaches should not be separated and are both equally critical to student development. The ‘expectation’ component was seen to provide the structure, moral guidance and goal setting attributes needed for students. Expectation ultimately sets the new more positive example for the student, whilst student ‘support’ reinforces positive social behaviour. Support was also perceived to encourage positive psychological protective trait development. Both expectation and support in mentorship was considered essential for reducing disengagement and lack of positive growth. The extract below, which refers to the interaction between a coach the students, draws attention to the positive response generally given by a student under this kind of adult guidance.

“A lot of reinforcements, a lot of sprays (ultimatums), you know “that’s not on”, Um “that was really positive”, “keep doing that”, and you can see when anyone gets anything positive, “ah I did good, I did good”, “I’m going to keep

going, cause that's a great feeling, I'm going to keep going with that"

(Participant 2, lines 126-129)

3.5.5 Peer mentorship

The final phase to the mentorship program is progressing mature IFC students into a leadership role. Fundamentally, it is used to promote a chance to 'give back what was given'. The leadership program is also used to encourage greater student ownership and growth of positive life skills. It also is used to promote a smoother and more effective transition in peer relatability with new students. Peer leadership is used to give new students a goal to which they can aspire and a peer role model with which they can connect. A pairing system is also regularly implemented into this process. The aim of the leadership program is to encourage positive reciprocal peer relationships as an alternative to the negative peer associations perceived to be experienced externally. Interviewee's believed, negative external student relationships and environmental factors, reinforce problematic behaviour and set back student growth within the IFC. A student that is in a leadership role is generally perceived to reflect many of the characteristics of the IFC's core values. At this stage IFC values were reported to manifest themselves behaviourally in the student's school environment. At this point interviewees reported large amounts of positive psychological and behavioural changes were evident. The amount of time a student took to individually get to this stage varied. However, by this stage the student was generally considered to have fully engaged or 'bought in to the program'.

"We call it a leadership program, leadership by influence. So we, we get the kids there, say the first time they came in, we put the kids from the program who have been in it for say a year, we put the kids who are new and then on the other side the kids that are new on the other side and say you tell the ones

on the um people who have been in it say “you tell the kids who have just come in where you were 12 months ago”. (Participant 3, lines 423-427)

3.6 Environment is Key

Finally, the collective environment or community mentality is expressed as being the underlying process that reinforces everything done in the IFC. This is best conceptualised as the ‘collective’ or the ‘community mindset’ in which the IFC seeks to install and reside. Within the IFC environment, there is a large emphasis on creating a place of belonging, safety and support. This is constantly compared to a family network, which explains why the term ‘family’ is often used as the preferred descriptive by participants. Once a student sense of belonging and connectedness is established, the environmental focus is consistent with the mentoring style (highly demanding yet highly supportive). This serves to promote consistency within the internal workings of the program and allows for peer leaders and staff to collectively project the IFC’s desired values its new comers. In conjunction to the internal workings, several external events are arranged to reinforce the environmental mentality. They also serve to encourage student societal re-engagement. Societal engagement opportunities are deliberately targeted as being unfamiliar or new to the students. The main aim is to teach the students that people external to the program care and that students are a valued member of society. This is perceived as a lacking mind state in many of the new students and the aim of these events is to positively change this in the students. In particular, it’s believed to increase student self-pride, self-achievement and self-confidence. Visits to government house, meeting the governor general for award ceremonies, guest speakers, small business learning interactive events and writing to ask for sponsorship are some examples. However, the main and most influential reoccurring event, is the Ice Factor Spectacular. This event sees the students take part to raise funds for the IFC equipment. Run in Adelaide, it primarily involves the students presenting a fundraising fashion show, for a range of sponsors, parents, teachers

and other adults considered to represent a high societal standing. Due to the intense nature of this event, it is also perceived to increase student ownership toward the IFC program and promote the idea of leaving a legacy to the next generation.

3.6.1 Belonging

As with the goal of establishing trust or relatedness through mentorship, the initial aim of the collective IFC environment focuses on creating a place of belonging. It's a perceived a psychological necessity for giving the students an alternative range of supportive networks. This allows for students to confide or escape their life hardships whilst promoting engagement with the IFC. Once students feel they belong, they begin to connect with each other, the staff and the program. The aim of engagement in this sense, is at a community level rather than a small group or team level. It is here the foundation is set for societal re-engagement.

“They feel like they belong like they have someone they can count on and (staff), (staff) they know like and we remind them all the time you don't just have to count on us, as teachers here, if you know, you can go down to the ice arena and there will be someone there from ice factor there, you know and quite often the kids go on a Friday night and all skate together from all different schools you know and that so, that also gives them somewhere to be where they feel like they belong”. (Participant 7, lines 332- 338)

3.6.2 Community Support

Once the students develop the mindset of belonging or community within the IFC, the focus moves to transitioning this change into a broader social context. The perception is, by reinforcing the student with community support networks external to the IFC, it provides the psychological protective factors against the lack of external support existing within student

lives. Again, the focus is on empowerment rather than directly confronting individual student issues.

“The biggest thing for me and (staff) is that we want to show the students that there is people in the community, not just in Ice Factor but in the larger community that do care, um so whether they got that at home or in their inner circles, there is not much we can do about that, but we want to show them that there are people out there that do care”. (Participant 1, lines 279-283)

3.6.3 External Opportunity

As with the mentoring process there is a practical phase used to reinforce the collective change in student perception. This takes the form of a diverse range of events. Each event involves a diverse range of mostly unfamiliar scenarios and individuals to the students. Each opportunity brings a unique outcome or set of outcomes, designed to subjectively connect with the students depending on what they lack. External opportunities provide a chance to practically apply and further develop newly learnt life skills. As one ex-student cum mentor expresses:

“You get like different experiences which.. just which builds you as a person. So you get confidence from, from modelling from public speaking, from being around others from all these other things it’s just like you get all this, but it’s just like that somehow the program does it on a larger scale. So everybody is getting these little pieces and it builds a group”. (Participant 4, lines 233-236)

3.7 Beneficial student outcomes

To this point, results have largely focused on themes related to the ‘how’ the inner workings of the IFC achieves its goals. Ultimately the aim is to re-engage students at the individual, IFC community, school and societal levels. This next section of results focuses on

participant perceptions of ‘if’ the IFC benefits its students. It focuses on what beneficial student changes interviewees see as evident due to the IFC. Results also include ‘how’ and ‘if’ it re-engages students on an academic/school level. Outcomes are almost always attributed by interviewees to the collective, interdependent, interactive and reciprocal processes, working within and between themes and sub-themes. That is, collectively all overarching themes and sub-themes contribute both linearly and hierarchically in a chronological process. This is indicative of the developed structural process of the IFC, progressing toward its student re-engagement outcomes.

3.7.1 Changed mind set and re-identification

The data indicated a change of mindset and a consequential student reidentification as the first stage in beneficial student outcomes. The foundation for this outcome is a result of firstly rendering the students equal, then creating an all-inclusive environment. A new set of values and skills through the mentorship and leadership programs are then delivered via the team ‘vehicle’. The environment created both internally and externally to the IFC is used to reinforce this process. This creates a sense of belonging, ownership, self-pride, self-achievement and self-confidence. Consequently, it allows students to individually re-identify themselves with these new values and the IFC community. Evidence of this process then seen both internally and externally to the program. As one interviewee remarked:

“I think more so in the school yard they’ve become a team and like the sense of community feeling, especially with the three boys that are in year eight, they’re in the same home group and are in a lot of classes together, and I’ve had a lot of positive feedback about how they are, wanting to be known as the ice factor boys because they’re really proud of themselves about how far they’ve come this year”. (Participant 8, lines 87-91)

3.7.2 Behavioural Change

Consequently, a change of student mindset and re-identification appears to translate into positive behavioural change. In particular, participants identified an overall increase in student school attendance and positive social interactions (e.g. decreased aggression and violent behaviour) toward their peers and adults. This was not limited only to the IFC or school environments. Results also indicated evidence of positive psychologically led behavioural change for issues such as student suicide and self-harm. As one participant remarked:

“On the other side of the coin.. um I had a girl who presented to us and she was a cutter.. and she would systematically cut herself when things didn’t go right. So I encouraged her to come into the program and from the point of time she actually bought in (to the program).. so we are talking probably half a term, ah she stopped cutting”. (Participant 6, lines 58-62)

3.7.3 School Motivation

With a combination of both psychological and social changes taking place, a motivation to re-engage with school consequently occurs. This is perceived to be a direct result of the students wanting to maintain engagement with the IFC. Interviewees attributed this to the support and opportunity the IFC provides. It includes the sense of team relatedness, connectivity, belonging and self-achievement the programs installs in them. Efforts to motivate students to attend school is largely co-ordinated through the consistency of communication and overlap in staff categorisations (team managers also self-categorised as school teachers or mediators). Due to the students ‘will’ to remain engaged with the IFC, schools use the IFC as a reward incentive for academic performance outcomes. This was

perceived as highly effective amongst key stake holders that categorised as team managers/teachers.

“I saw that very early on, that students got hooked on ice hockey and then it was like “well if you want to keep playing ice hockey now we got to work on the school stuff” and it was a no brainer for them. They were like “ok well I’m not missing out on ice hockey so what do I have to do”. (Participant 7, lines 28-31)

3.7.4 Academic performance

Interviewees confirmed that the IFC had a minimal focus on academic performance within its program. This was except for minor literacy programs. However, it was expressed that one of the major outcomes known across all staff categorisations, was that the IFC provided school re-engagement through school motivation. This then created the opportunity for an increase in academic performance and retention. Consequently, this also had a flow on effect for positive societal and positive student life outcomes. This included an increase in employment opportunities and post-school education. As one interviewee indicated:

“I saw on the Facebook he was now at the age of nineteen, he owned two investment properties and he was in Adelaide you know magazine for being a young achiever, he said “I was in year ten, um I didn’t give care about school I came down to the ice arena, I did my ice hockey why not, I realised I was good at ice hockey and I enjoyed the success of ice hockey and I thought well I’ll go back to school and I enjoy my success at school” he finished up being the top achiever at that school”. (Participant 3, lines 340-345)

CHAPTER 4

Discussion

4.1 Overview

This study employed a qualitative approach to investigate stakeholders' perceptions of the inner processes of the IFC, to better elucidate the program's stated goals and perceived benefits. In particular, the bottom-up narrative aimed to report their perceptions of 'how' and 'if' the IFC benefits its students. Seventeen sub-themes were identified that represented the inner processes of the IFC, which converged into four overarching themes. These four themes were believed by participants to contribute to the five identified beneficial student outcomes. In line with the literature, the results of this study indicated, participant derived sub-themes were consistent with the known beneficial processes of a multicomponent intervention program (Freeman & Simonsen, 2015). In particular, results indicated the IFC achieved its beneficial student outcomes in the following ways. First, the IFC focused on rendering its students equal (Ice hockey levels the field) and thereby promoted an 'all inclusive' environment. This may have served to mitigate some of the known psychological barriers to participation (Hammond et al., 2007) that arise from including students with diverse backgrounds in the same intervention (Crowder & South, 2003, Rumberger, 1995). Secondly, findings indicated the promotion of new positive student values and life skills development (Team is the vehicle), in line with those known to create adaptive student personality traits that reduce student disengagement (Orpinas, Raczynski, Peters, Colman and Bandalos, 2015). This was done on both an individual and small group level, which was identified as the most beneficial method of delivery in student intervention research (Freeman and Simonsen, 2015). Third, the findings of this study indicated participant derived evidence of both positive adult interaction and positive reciprocal peer relationships within the mentorship program.

These relationships are known to support a student's basic psychological needs (Karcher, 2004, Ricard and Pelletier, 2016) (Quality not Quantity). In this case, the IFC's highly expectant and supportive approach is the antithesis of negative adult interactions (Bridgeland et al, 2006, Bridgeland, Dilulio and Balfanz, 2009) and lack of reciprocal peer relationships (Buhs et al., 2006, Ladd, 1990, 2003) commonly experienced by troubled youths. Therefore, the IFC leadership and mentorship program, in conjunction with its core values and life skills development, may be producing the positive student psychological protective factors known to influence student school adjustment and motivation difficulties (Buhs et al., 2006, Ladd, 1990, 2003, Ricard and Pelletier, 2016). Finally, the results indicated a collective environment that is focused on creating a sense of belonging, community support and external opportunities. In this kind of environment, it has been shown that one can decrease problem behaviour and dis-engagement, whilst increasing positive attitudes (Converse & Lignugaris/Kraft, 2008), social skills, self-esteem and school connectedness (Karcher, 2004). As indicated by the study's findings and the considered literature, psychosocial supportive measures implemented by the IFC seem to equip the students with the tools necessary to increase positive psychological and behavioural change; school motivation; school engagement and academic performance. In conclusion, according to known literature and the perceptions of its key stakeholders, the IFC appears to comprise of the key characteristics indicative of a beneficial student multicomponent intervention program. It seems capable of psychologically supporting students at risk of leaving high school early, consequently re-engaging them with school and in turn broader society.

4.2 Implications

The findings discussed within this study may hopefully be used to enrich the current understanding of similar intervention practices in the literature. Furthermore, by having now established a base line of scientific data for the IFC, multimethodological and interdisciplinary approached studies, may support further investigations of any other identified areas of interest within the IFC. Results of future studies and this current study, can also be used to reflect, refine and develop the practices within the IFC. Therefore, over time making the program more efficient, reliable and beneficial for its students. Furthermore, if these goals can be consistently quantified, in that the program leads to a greater reduction of high school student disengagement and consequently a reduction in the known negative outcomes associated with leaving high school early, then hopefully, it will also aid in increasing social and political attention required for further growth. As discussed in the introduction, this will have positive implications for individual, family and societal populations.

4.3 Strengths

This study was able to capture a diverse range of perspective data relevant to the multiple positions held by key stakeholders within the IFC. For example, some of the key stake holders identified as school teachers as well as IFC staff. This allowed for perceptions of beneficial student outcomes and IFC processes to be view across multiple environmental contexts. Furthermore, data saturation was achieved due to the overlaps within participants job categorisations, that were discussed in the method. This suggests that there was sufficient data collected to support their claims (Tracey, 2010). Participants were also allowed the opportunity to review and confirm via email the content accuracy of their transcripts. Participants also expressed interest in the necessity and purpose of the study, which served to

enhance the perceived credibility of the study and its meaningfulness to participants. Data triangulation and reviews of the emerging themes was conducted by a research supervisor. This ensured that there was an accurate consensus in the final themes produced in the results and served to enhance rigour and trustworthiness. Finally, an audit trail of both the physical and intellectual developments of the project was kept. This was done to enhance the transparency and sincerity of the research process.

4.4 Limitations and future research

Although this study had several strengths, it was also not without its limitations. First, due to the time-limited nature of the project, it was not possible to interview all relevant stakeholders such as current students, family members, sponsors of the IFC, or politicians. Second, the study is based on a self-report methodology and involves those who may have a vested interest in being more positively disposed towards the program. Third, the study also does not capture what factors might contribute to differences in outcomes for students who are classified at risk for different reasons. As discussed earlier, this population is demographically diverse (Crowder and South, 2003, Rumberger, 1995) and the circumstances of each individual student is likely to be influenced by a range of complex and overlapping factors consistent with biopsychosocial (Thompson, 2008) and ecological models (Bronfenbrenner, 2009). Fourth, the study does not focus on any particular objective outcomes. Future studies could, therefore, be directed towards particular outcomes such as education, e.g. to investigate the beneficial academic performance or retention outcomes of IFC students. Mixed methodological approaches could also be used to first qualitatively obtain a population perspective with additional quantitative data from individual students and comparisons with population statistics. Finally, the study could potentially place a greater focus on individual differences and diversity within the population. For example, how

outcomes might vary depending upon gender, cultural status, socio-economic background or populations with distinctive needs, such as students with Autism.

4.5 Conclusion

The broad aim of this study was to gain greater insight to the inner workings of the IFC. By exploring key stakeholder perceptions of the IFC and constructing a bottom up-narrative of their account, this research sought to provide a stronger evidence base for future evaluation and development of the program. The investigation showed that the key contributors to outcomes appear to be the creation of an inclusive and supportive environment within the context of an activity that is generally unfamiliar to participants. At a theoretical level, the program appears to work because its multi-faceted, socially interactive, but also individually tailored. Such an approach is entirely consistent with the principles of modern ecological theory theories that consider the challenges faced by young people to result from the complex interplay of variables operating at an individual, family, school and social level. Future research should focus on obtaining more data that will assist in understanding and identifying to what capacity the IFC achieves its goals. This could be inclusive of a range of populations not captured in this study both internal and external to the IFC. Of particular interest, is the measurable effect on student retention, academic performance or beneficial mental health outcomes of those having participated in the IFC. If the IFC is effectively achieving what this study has found, then there is a great opportunity to further advance this program and positively influence a vulnerable community population.

References

- Archambault, I., Janosz, M., Morizot, J., & Pagani, L. (2009). Adolescent Behavioral, Affective, and Cognitive Engagement in School: Relationship to Dropout. *Journal Of School Health, 79*(9), 408-415. doi: 10.1111/j.1746-1561.2009.00428.x
- Australian Bureau of Statistics (2018). *4221.0 - Schools, Australia, 2017*. Abs.gov.au. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4221.0?OpenDocument>
- Baker, S.E., & Edwards, R. (2012). How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research. National Centre for Research Methods Review Paper. Retrieved from http://eprints.ncrm.ac.uk/2273/1/how_many_interviews.pdf.
- Balfanz, R., Fox, J. H., Bridgeland, J. M., & McNaught, M. (2009). *Grad Nation: A guidebook to help communities tackle the dropout crisis*. Washington, DC: America's Promise Alliance. Retrieved from http://www.ode.state.or.us/wma/teachlearn/diploma/grad_nation_one-pager.pdf
- Belfield, C., & Levin, H. M. (2007). *The price we pay: Economic and social consequences of inadequate education*. Washington, DC: Brookings Institution Press.
- Bowers, A. J., Sprott, R., & Taff, S. (2013). Do we know who will drop out? A review of the predictors of dropping out of high school: Precision, sensitivity and specificity. *High School Journal, 96*(2). 77–100. doi:10.1353/hsj.2013.0000
- Braun, V. and Clarke, V. (2013). *Successful qualitative research*. Los Angeles: SAGE.

- Bridgeland, J., Dilulio, J., & Morison K. B. (2006). *The Silent Epidemic: Perspectives of High School Dropouts*. Retrieved from <http://www.civicerprises.net/pdfs/thesilentepidemic3-06.pdf>
- Bridgeland, J., Dilulio, J., & Belfanz, R. (2009). *On the Front Lines of Schools: Perspectives of Teachers and Principals on the High School Dropout Problem*. Civic Enterprises.
- Britten, N. (2006). Qualitative interviews. In C. Pope & N. Mays (Eds.), *Qualitative research in health care* (3rd ed., pp. 12-20). Carlton, Vic: Blackwell
- Bronfenbrenner, U. (2009). *The Ecology of Human Development: Experiments by Nature and Design* [Ebook]. Harvard University Press.
- Buhs, E. S., Ladd, G. W., & Herald, S. L. (2006). Peer exclusion and victimization: Processes that mediate the relation between peer group rejection and children's classroom engagement and achievement? *Journal of Educational Psychology, 98*, 1–13. doi:10.1037/0022-0663.98.1.1.
- Burrus, J., & Roberts, R. (2012). *Dropping Out of High School: Prevalence, Risk Factors, and Remediation Strategies, 18*. Princeton, NJ: ETS Research and Development. Retrieved from https://www.ets.org/Media/Research/pdf/RD_Connections18.pdf
- Campbell, C. (2015). The socioeconomic consequences of dropping out of high school: Evidence from an analysis of siblings. *Social Science Research, 51*, 108-118. doi: 10.1016/j.ssresearch.2014.12.011
- Catterall, J. (1987). An Intensive Group Counseling Dropout Prevention Intervention: Some Cautions on Isolating At-Risk Adolescents within High Schools. *American Educational Research Journal, 24*(4), 521. doi: 10.2307/1163178

- Christle, C., Jolivette, K., & Nelson, C. (2007). School Characteristics Related to High School Dropout Rates. *Remedial And Special Education, 28*(6), 325-339. doi: 10.1177/07419325070280060201
- Converse, N., & Lignugaris/Kraft, B. (2008). Evaluation of a School-based Mentoring Program for At-Risk Middle School Youth. *Remedial And Special Education, 30*(1), 33-46. doi: 10.1177/0741932507314023
- Crowder, K., & South, S. (2003). Neighborhood distress and school dropout: the variable significance of community context. *Social Science Research, 32*(4), 659-698. doi: 10.1016/s0049-089x(03)00035-8
- Davis, K., & Dupper, D. (2004). Student-Teacher Relationships. *Journal Of Human Behavior In The Social Environment, 9*(1-2), 179-193. doi: 10.1300/j137v09n01_12
- Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. New York: Plenum. doi:10.1007/978-1-4899-2271-7. Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227– 268.
- Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., & Smink, J. (2008). Dropout prevention: *A practice guide (NCEE 2008–4025)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Fredricks, J., Blumenfeld, P., & Paris, A. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review Of Educational Research, 74*(1), 59-109. doi: 10.3102/00346543074001059

- Freeman, J., & Simonsen, B. (2015). Examining the Impact of Policy and Practice Interventions on High School Dropout and School Completion Rates. *Review Of Educational Research*, 85(2), 205-248. doi: 10.3102/0034654314554431
- Freeman, J., Simonsen, B., McCoach, D., Sugai, G., Lombardi, A., & Horner, R. (2015). An Analysis of the Relationship Between Implementation of School-wide Positive Behavior Interventions and Supports and High School Dropout Rates., *The High School Journal*, 98(4), 290-315. doi: 10.1353/hsj.2015.0009
- Furstenberg, F. R., & Neumark, D. (2007). Encouraging education in an urban school district: Evidence from the Philadelphia educational longitudinal study. *Education Economics*, 15, 135–157. doi:10.1080/09645290701263054
- Hammond, C., Linton, D., Smink, J., Drew, S., National Dropout Preventions Center, & Communities in Schools. (2007). Dropout risk factors and exemplary programs: A technical report. National Dropout Prevention Center/ Network (NDPC/D). Retrieved from <https://files.eric.ed.gov/fulltext/ED497057.pdf>.
- Harvey, S., Glozier, N., Henderson, M., Allaway, S., Litchfield, P. & Holland-Elliot, K. (2011). Depression and work performance: an ecological study using web-based screening. *Occupational Medicine*, 61, 209-211.
- Hayes, R., Nelson, J., Tabin, M., Pearson, G., Worthy, C. (2002). Using school-wide data to advocate for student success. *Professional School Counselling* (6), 86-94. Retrieved from file:///C:/Users/Client/Downloads/Using_schoolwide_data_to_advoc.PDF.
- Hysenbegasi, A., Hass, S., & Rowland, C. (2005). The Impact of Depression on the Academic Productivity of University Students. *The Journal of Mental Health Policy and Economics* (8), 145-151. Retrieved from https://www.researchgate.net/profile/Rylee_Oram/publication/291417258_A_Feasibility_Tri

al_of_a_Novel_Approach_to_Depression_Prevention_Targeting_Proximal_Risk_Factors_and_Application_of_a_Model_of_Health-Behaviour_Change/links/5818c33408ae1f34d24aa65e.pdf

Ice Factor Program- An Overview. (2016). *Adelaide*. Retrieved from

http://www.icefactor.net/uploads/1/4/7/5/14757978/ice_factor_newsletter__1_.pdf

Ice Factor. (2018). Ice Factor: *History and Future Directions*. Retrieved 12 March 2018, from

<http://www.icefactor.net/history-and-future-directions.html>

Jaeger, M., & Rosnow, R. (1988). Contextualism and its implications for psychological

inquiry. *British Journal Of Psychology*, 79(1), 63-75. doi: 10.1111/j.2044-

8295.1988.tb02273.x

Jeon, H. (2011). Depression and suicide. *Journal of the Korean Medical Association*, 54, 370-375.

Jimerson, SR., Campos, E., & Greif, JL. (2003). Toward an understanding of definitions and

measures of school engagement and related terms. *The California School Psychologists* (8),

7-27.

Karcher, M. (2004). The effects of developmental mentoring and high school mentors' attendance on

their younger mentees' self-esteem, social skills, and connectedness. *Psychology In The*

Schools, 42(1), 65-77. doi: 10.1002/pits.20025

Ladd, G. W. (1990). Having friends, keeping friends, making friends and being liked by peers in the

classroom: Predictors of children's early school adjustment? *Child Development*, 61, 1081-

1100. doi:10.2307/1130877.

Ladd, G. W. (2003). Probing the adaptive significance of children's behavior and relationships in the

school context: A child-by-environment perspective. *Advances in child behavior and*

development, 43-104.

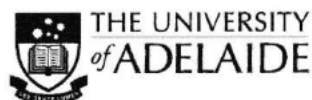
- Lansford, J., Dodge, K., Pettit, G., & Bates, J. (2016). A Public Health Perspective on School Dropout and Adult Outcomes: A Prospective Study of Risk and Protective Factors From Age 5 to 27 Years. *Journal Of Adolescent Health, 58*(6), 652-658. doi: 10.1016/j.jadohealth.2016.01.014
- Martin, E., Tobin, T., & Sugai, G. (2003). Current Information on Dropout Prevention: Ideas From Practitioners and the Literature. *Preventing School Failure: Alternative Education For Children And Youth, 47*(1), 10-17. doi: 10.1080/10459880309604423
- Meyer, L. (1984). Long-term academic effects of the direct instruction project follow through. *Elementary School Journal, 84*, 380–394. doi:10.1086/461371
- Mezuk, B. (2009). Urban debate and high school educational outcomes for AfricanAmerican males: The case of the Chicago debate league. *Journal of Negro Education, 78*, 290–304.
- Neild, R. C., & Balfanz, R. (2006). Unfulfilled promise: *The dimensions and characteristics of Philadelphia's dropout crisis*. Retrieved from http://www.csos.jhu.edu/new/Neild_Balfanz_06.pdf.
- Neild, R. C., Stoner-Eby, S., & Furstenberg, F. F. (2008). Connecting entrance and departure: The transition to ninth grade and high school dropout. *Education and Urban Society, 40*, 543–569.
- Orpinas, P., Raczynski, K., Peters, J., Colman, L., & Bandalos, D. (2015). Latent profile analysis of sixth graders based on teacher ratings: Association with school dropout. *School Psychology Quarterly, 30*(4), 577-592. doi: 10.1037/spq0000107
- Porowski, A., & Passa, A. (2011). The effect of communities in schools on high school dropout and graduation rates: Results from a multiyear, school-level quasiexperimental study. *Journal of Education for Students Placed at Risk, 16*(1), 24–37. doi:10.1080/10824669.2011.545977

- Ricard, N., & Pelletier, L. (2016). Dropping out of high school: The role of parent and teacher self-determination support, reciprocal friendships and academic motivation. *Contemporary Educational Psychology, 44-45*, 32-40. doi: 10.1016/j.cedpsych.2015.12.003
- Rosnow, R. L., & Georgoudi, M., (1986). (Eds.). Contextualism and understanding in behavioral science. Implications for research and theory. New York: Praeger.
- Rumberger, R. (1995). Dropping out of Middle School: A Multilevel Analysis of Students and Schools. *American Educational Research Journal, 32*(3), 583. doi: 10.2307/1163325
- Rumberger, R., & Larson, K. (1998). Student Mobility and the Increased Risk of High School Dropout. *American Journal Of Education, 107*(1), 1-35. doi: 10.1086/444201
- Rumberger, R. W. (2011). Dropping out: *Why students drop out of high school and what can be done about it*. Cambridge, MA: Harvard University Press. doi:10.4159/harvard.9780674063167
- Sinclair, M. F, Christenson, S. L., & Thurlow, M. L. (2005). Promoting school completion of urban secondary youth with emotional or behavioral disabilities. *Exceptional Children, 71*, 465–482.
- Solomon, R., & Liefeld, C. (1998). Effectiveness of a family support center approach to adolescent mothers: Repeat pregnancy and school drop-out rates. *Family Relations, 47*, 139–44. doi:10.2307/585617
- Stanard, R. P. (2003). High school graduation rates in the United States: Implications for the counseling profession. *Journal of Counseling and Development, 81*, 217–222.
- Stern, D., Dayton, C., Paik, I., & Weisberg, A. (1989). Benefits and costs of dropout prevention in a high school program combining academic and vocational education: Third-year results from replications of the California peninsula academies. *Educational Evaluation and Policy Analysis, 11*, 405–416. doi:10.2307/1163992

- Swanson, C. B., & Editorial Projects in Education. (2009). Cities in crisis: Closing the graduation gap. Educational and economic conditions in America's largest cities. *Editorial Projects in Education*. Retrieved from http://www.edweek.org/media/cities_in_crisis_2009.pdf
- Tebes, J. (2005). Community Science, Philosophy of Science, and the Practice of Research. *American Journal Of Community Psychology*, 35(3-4), 213-230. doi: 10.1007/s10464-005-3399-x
- Tebes, J. K. (1997). Self-help, prevention, and scientific knowledge. Invited Paper to the Pre-Conference Workshop on Self-Help, Biennial Meeting of the Society for Community Research and Action, Columbia, South Carolina.
- Tebes, J. K., Kaufman, J. S., & Connell, C. M. (2003). The evaluation of prevention and health promotion programs. In T. P. Gullotta & M. Bloom (Eds.). *Encyclopedia of primary prevention and health promotion* (pp. 42–61). New York: Kluwer
- Thompson, E. (2007). *Mind in life: Biology, phenomenology, and the sciences of mind*. Cambridge, MA: Harvard University Press.
- Tracy, S. J. (2010). Qualitative quality: *Eight 'big-tent' criteria for excellent qualitative research*. *Qualitative Inquiry*, 16, 837-851. doi: 10.1177/1077800410383121
- Voelkl, K. (1997). Identification with school. *American Journal of Education*, 105, 204–319.
- Wang, M., & Fredricks, J. (2013). The Reciprocal Links Between School Engagement, Youth Problem Behaviors, and School Dropout During Adolescence. *Child Development*, 85(2), 722-737. doi: 10.1111/cdev.12138
- Whitton, S., & Whisman, M. (2010). Relationship satisfaction instability and depression. *Journal Of Family Psychology*, 24(6), 791-794. doi: 10.1037/a0021734

Appendix A

Participant Information Sheet



PARTICIPANT INFORMATION SHEET

PROJECT TITLE: Identifying themes for success for 'at risk' school children: The Ice Factor Challenge.

HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: [REDACTED]

PRINCIPAL INVESTIGATOR: Dr Loraine Lim and Dr Paul Delfabbro

STUDENT RESEARCHER: Scott Thompson

STUDENT'S DEGREE: Honours in Psychology

Dear Participant,

You are invited to participate in the research project described below.

What is the project about?

The aim of this project is to examine whether, and in what ways, the Ice Factor Challenge has given rise to psychosocial benefits for "at risk" students. This project seeks to create scientific based evidence to promote both project and public understanding about the 'Ice Factor Challenge'. By doing this we hope to create an evidence base for future research to enhance awareness of the project as well as identify areas which might be developed further or enhanced to secure better outcomes for future students.

Who is undertaking the project?

This project is being conducted by Dr Loraine Lim, Forensic Psychologist and Adjunctive Senior Clinical Lecturer of the University of Adelaide. Student researcher Scott Thompson and his Internal Supervisor Dr Paul Delfabbro of The University of Adelaide.

Why am I being invited to participate?

You are being invited as you have been identified as a 'key stake holder' or 'person of interest' involved in the "Ice Factor Challenge".

Key stake holders or persons of interest may include: key faculty, coaches, sponsors and politicians involved with the project.

What am I being invited to do?

You are being invited to....

- Participate in an interview involving a series of questions about the Ice Factor Challenge and its psychosocial outcomes for its students.

- Give consent for interviews to be recorded for analyses (all interview reports will remain anonymous).
- Attend roughly 30 to 60 min for the conduct of the interview

How much time will my involvement in the project take?

This will be a single interview that will take approximately 30 – 60 minutes. This time will vary depending on the interviewee, as we want to make sure you have ample time to express your views. There may also be 15 min either side for interviewee questions and discussions.

Are there any risks associated with participating in this project?

We do not foresee any risks involved with this project.

What are the potential benefits of the research project?

It is hoped by conducting this research, it will provide insights into the ways in which the Ice Factor might deliver even better outcomes for its students in the future. It is further hoped that a greater scientific understanding of the Ice Factor, will lead to greater awareness of the public. This project is aimed at establishing a foundation for future Ice Factor specific research to grow upon. It is also aimed at creating a greater understanding of “at risk” school children in a broader scientific context.

Participation in this project is completely voluntary. If you agree to participate, you can withdraw from the study at any time.

What will happen to my information?

Confidentiality and privacy: All participant names, details that are recorded on the interview phase audio files will be accessible only by the researchers conducting the project. However, upon transcription and final write up of the report, all participant actual names and identifications will be changed and allocated to a random code to ensure anonymity. Audio files and transcripts will be held under secure conditions at The University of Adelaide by Dr Paul Delfabbro. Results of research will be made accessible to participants via a short summary and a copy will be sent to the staff at the Ice Factor Challenge. Information from this project may also be presented at a seminar later in 2018. It is the intention this data may be used for future research for Masters and PhD students researching the Ice Factor Challenge. A consent form is attached to this form indicating understanding and permissibility on your behalf.

Your information will only be used as described in this participant information sheet and it will only be disclosed according to the consent provided, except as required by law.

What if I have any questions about the project?



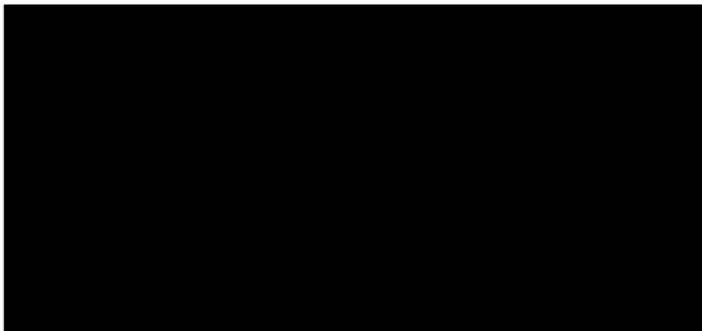
What if I have a complaint or any concerns?

For any questions about the ethical conduct of the research, please contact Dr. Diana Dorstyn, the Acting Chair of the Subcommittee for Human Research Ethics in the School of Psychology (Diana.dorstyn@adelaide.edu.au).

If I want to participate, what do I do?

After reading this sheet, fill out the attached consent form and get in contact with one of the project supervisors to register your interest. Researchers will then follow up at a later date, to confirm a workable interview time and answer any questions about the process. Please ensure you have your filled-out consent form and participation form for discussion prior to the interview, thank you.

Yours sincerely,



Appendix B

Participant Consent Form



Human Research Ethics Committee (HREC)

CONSENT FORM

1. I have read the attached Information Sheet and agree to take part in the following research project:

Title:	Identifying themes for success for 'at risk' school children: The Ice Factor Challenge.
Ethics Approval Number:	██████████

2. I have had the project, so far as it affects me, and the potential risks and burdens fully explained to my satisfaction by the research worker. I have had the opportunity to ask any questions I may have about the project and my participation. My consent is given freely.
3. I have been given the opportunity to have a member of my family or a friend present while the project was explained to me.
4. Although I understand the purpose of the research project, it has also been explained that my involvement may not be of any benefit to me.
5. I agree to participate in the activities outlined in the participant information sheet.
6. I agree to be:
- Audio/video recorded
7. I understand that I am free to withdraw from the project at any time and that this study will remain anonymous.
8. I have been informed that the information gained in the project may be published in a book/journal article/thesis/news article/conference presentations/website/report etc.
9. I have been informed that in the published materials I will not be identified, and my personal results will not be divulged. I have been informed that while I will not be named in the published materials, it may not be possible to guarantee my anonymity given the nature of the study and/or small number of participants involved.
10. I agree to my information being used for future research purposes limited to non-identifiable, Ice Factor Challenge and Psychological related projects. (Future honours/masters and Phd level University Projects).
- Yes No

11. I agree to my information to be shared on an online digital repository. This will also remain anonymous.

Yes No

12. My information will only be used for the purpose of this research project and it will only be disclosed according to the consent provided, except where disclosure is required by law.

13. I am aware that I should keep a copy of this Consent Form, when completed, and the attached Information Sheet.

Participant to complete:

Name: _____ Signature: _____ Date: _____

Researcher/Witness to complete:

I have described the nature of the research to _____
(print name of participant)

and in my opinion she/he understood the explanation.

Signature: _____ Position: _____ Date: _____

Appendix C

Voluntary demographic information sheet

Participant Demographic Data Sheet

All information collected on this sheet is completely voluntary and optional. Information used will be descriptively general in nature (e.g. amount of people per job category present in the study) and only used for researcher purposes relevant to this current study. All person identifiable information (e.g. names) will be rendered anonymous for the final report. For any queries or concerns about this process, please contact any of the researchers on the participant information sheet.

Name:

Age:

Sex:

Job/Position title:

Position applicable to the Ice Factor Challenge:

(If different from above)

I understand and have been explained the reasoning for collection of my personal information. I hereby give consent for the collection and use of this information for the purposes described in this research.

Signed:

Appendix D

Initial interview plan

Suggested interview questions for the 'Key Stake Holders' of the Ice Factor Program.

The Interview is a semi-structured open design. The time will vary depending on the needs of the interviewee, but would be expected to be completed within 60 minutes. Questions will be open ended and encourage maximum interviewee participation. Questions will be tailored towards encouraging discussion based on existing knowledge about the inner processes of the IFC, student psychosocial benefits and protective factors. Use main prompt questions to encourage conversation and follow up questions for clarification. Be flexible and allow the interviewee to tell the story.

Initial opening questions

Please, can you tell me a bit about yourself?

How long have you been involved with the program?

How did you get involved with the program?

In what ways have you been involved with the program?

Main Prompt questions

In your own words, what is the Ice Factor Challenge?

In what ways do you believe the program beneficial for its students?

How do you think the program achieves this?

Do you think this creates any psychological benefits for the students?

Does it improve social interactions in their lives?

Taking into consideration what has just been mentioned, in what ways do you see this affecting student's future quality of life or future opportunities?

Can you share any specific examples of where a specific student or body of students have benefited from the program and why this occurred?

For which students does the program seem to work best? Why is this?

Are there any students who seem less interested or reluctant to take part? Why is this?

To your knowledge, does the program have specific approaches or training that targets specific areas of development? Could you describe some of these elements and how these work?

In what ways could the program be further enhanced? Are there any things which could be done differently to improve outcomes or how more students might benefit from the program?

Are there any other comments you would like to make?

Follow up/clarification questions

Could you please expand on this a little further for me?

What is it you meant exactly by? Could you please give me an example of?

Appendix E

Thematic map highlighting relationships between themes, sub-themes and beneficial student outcomes.

