

# **Career Choice Capability**

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## **Investigating the concept of agentic career choice with high school students in New South Wales**

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# LIST OF PAPERS

## CONTRIBUTING TO THIS THESIS

- 2016      Galliott, N., & Graham, L. (under review). Focusing on what counts: using exploratory focus groups to enhance the development of an electronic survey in a mixed methods research design. *International Journal of Research and Method in Education*.  
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- 2016      Galliott, N. (under review). Online career guidance: does knowledge equate to power for high school students? *Journal of Psychologists and Counsellors in Schools*.  
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- 2015      Galliott, N., Graham, L. J., & Sweller, N. (2015). Who struggles most in making a career choice and why? Findings from a cross-sectional survey of Australian high-school students. *Journal of Psychologists and Counsellors in Schools, FirstView*, 1-19. doi: 10.1017/jgc.2015.7.  
[Impact Factor: 0.167. ERA ID: 6114. ISSN: 1037-2911]
- 2015      Galliott, N., & Graham, L. (2015). School based experiences as contributors to career decision-making: findings from a cross-sectional survey of high-school students. *The Australian Educational Researcher*, 42(2), 179-199. doi: 10.1007/s13384-015-0175-2  
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- 2014      Galliott, N., & Graham, L. J. (2014). A question of agency: applying Sen's theory of human capability to the concept of secondary school student career 'choice'. *International Journal of Research and Method in Education*, 37(3), 270-284.  
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## **LIST OF ABBREVIATIONS**

AARE	Australian Association of Research in Education
AC	Australian Curriculum
ACARA	Australian Curriculum Assessment and Reporting Authority
ACER	Australian Council for Educational Research
ADF	Australia Defence Force
AUD	Australian Dollar
AUSEI06	Australian Socioeconomic Index 2006
DETYA	Department of Education, Training and Youth Affairs
GBP	Great British Pound
GDP	Gross Domestic Product
GFC	Global Financial Crises
HEPPP	Higher Education Partnerships and Participation Program
HREC	Human Research Ethics Committee
HSIE	Human Society and Its Environment
IBM	International Business Machines Corporation
ICSEA	Index of Community Socio-Educational Advantage
ICT	Information Communication Technologies
LBOTE	Language Background Other Than English
LEAP	Learning Education Aspiration Participation
LSAY	Longitudinal Survey of Australian Youth
MCEETYA	Ministerial Council on Employment, Education, Training and Youth Affairs
NCVER	National Centre for Vocational Education Research
NSW	New South Wales
NSW DEC	New South Wales Department of Education and Communities
OECD	Organisation for Economic Co-operation and Development
PDHPE	Personal Development, Health and Physical Education

PhD	Doctor of Philosophy
SERAP	State Education Research Applications Process
SEIFA	Socio-Economic Indexes for Areas
SES	Socio-economic status
SPSS	Statistical Package for the Social Sciences
TAFE	Technical and Further Education
UK	United Kingdom
US	United States
USD	United States Dollar
USSR	Union of Soviet Socialist Republics
VET	Vocational Education and Training

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## Abstract

Career preference formation is a vital process for individuals living in a modern society such as Australia. Unfortunately, some young people experience greater difficulty in determining their career path than others, which can have negative consequences for their emotional, financial and even physical wellbeing. In addition, prolonged career uncertainty can lead to long-term unemployment, which has a negative effect on the economy. As current solutions seem to have insufficient effects on the problem of some young people's career uncertainty, this doctoral study draws on modern political philosophy to guide an empirical investigation of the career choice 'capability' of youth. The study proposes a conceptual framework, which draws on Amartya Sen's theory of human capability, to examine factors associated with the development of career choice capability. The proposed framework of this study advocates examining the personal and educational resources to date available to students in order to extrapolate the *ability* of young people to convert those resources into the freedom to achieve desirable careers.

The research was conducted with secondary school students in Years 9 to 12 from a range of government and non-government schools in New South Wales, Australia. The study adopted a sequential phase mixed-methods approach, involving five focus groups (n = 23), followed by a large-scale cross-sectional survey (n = 706) investigating the associations between student characteristics, educational experiences and career (un)certainty. Findings reveal that both personal backgrounds and educational experiences are crucial to students' self-perceived career determination capability. Among the personal characteristics, factors such as language background, parental occupation, self-perceptions, and attitudes to school were significant predictors of career (un)certainty. In terms of school based experiences, career uncertain students were more likely to be from non-metropolitan and non-selective schools, tended to report a lack of access to both career education and elective subjects

relevant to their needs, indicated less enjoyment from school in general, and in some academic subject areas. Career uncertain students did, however, report liking Sport/PDHPE (Personal Development, Health and Physical Education) to a greater extent than their career certain peers. Provision of online career guidance made no difference in career certainty for the majority of participants, as most were unaware of listed web resources.

The thesis concludes with a series of recommendations, including the development of stronger relationships between students, families, schools and local communities in order to facilitate communication flow in relation to student needs and labour demands, and creating strategies for enhancing career opportunities of young people. Another important recommendation derived from the findings of this study is the provision of career education and guidance to students in late primary or early secondary school, prior to their selection of elective subject choices. The thesis also advocates for improved curriculum diversity at a high school level, and clearer indication of the connections between subjects and career pathways.

# Declaration

Thesis title: Career Choice Capability: Investigating the concept of agentive career choice  
with high school students in New South Wales

Candidate's Name: Natal'ya Galliot (nee Shcherbak)

I hereby declare that this thesis is my own work and that, to the best of my knowledge, it does not contain any unattributed material previously published or written by any other person. I also declare that the work in this thesis has not been previously submitted to any other institution for, or as a part of, a degree.

This study was granted approval by Macquarie University Ethics Review Committee (Human Research) (reference number: 5201100745) and conducted in accordance with the guidelines stipulated.

Signed: .....

Date: .....

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I would also like to take this opportunity to thank the Macquarie University Faculty of Human Sciences and the School of Education and their staff members for a number of workshops, consultations and counselling. I am also grateful for the financial support that I received from the Macquarie University Postgraduate Research Fund, which covered my living expenses and allowed me to attend several overseas conferences, in addition to visiting Professor Elaine Unterhalter and Dr Michael Fertig in the UK. I would also like to express my appreciation for the Faculty of Human Sciences Perspectives Series grant that I received to hold a 'Youth Aspirations' symposium. The symposium, held at Macquarie University in July 2013, attracted key researchers in the area of aspirations and post-school transitions, as well as career guidance practitioners and NSW Department of Education representatives. Key papers from the symposium were published in a special issue of the *Australian Educational*

*Researcher* (AER) ‘Youth aspirations, participation in higher education and career choice capability: where to from here?’ I am thankful to the contributors for their research, critical thinking and writing efforts.

A number of external bodies need to be acknowledged, as without their assistance and feedback, this work would not have been possible. Many thanks goes to the Australian Association of Research in Education (AARE) and its members for their feedback on my work and for the Post Graduate Student Research Award that I received in 2013. To Dr Robert Stevens and the New South Wales Department of Education (formerly the Department of Education and Communities), thank you for approving the conduct of this research in New South Wales government schools. To the Principals, career advisers and year advisers of the 13 participating schools, thank you for your participation in this research project and assistance in communicating with students. To the participating students and their parents and guardians, thank you for your time and for sharing your thoughts and experiences.

To the anonymous journal reviewers who read the papers that constitute a substantial part of this thesis, thank you for your critique and recommendations. Whilst I cannot thank you personally, I would like to reassure you that your hard work is appreciated and helped me to develop my voice as a researcher.

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---

Translation to Russian (Thanks to family and friends):

Работа над этой диссертацией не была бы возможной без поддержки моих родителей Татьяны и Виктора Щербак, чьё либеральное воспитание позволило мне развиваться как критичному мыслителю. Спасибо Вам за вашу родительскую мудрость, а также за финансовую и эмоциональную поддержку моего путешествия на другую сторону света и первых лет прибывания в Австралии и университетской учебы.

Моей дорогой сестре Ирине Аксеновой, её мужу Николаю и моим красавицам племянницам Полине и Наташе: спасибо Вам за гостеприимство, долгие часы Скайпа и Ваши радушные улыбки. Они придают энергии и вдохновения.

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Хочу поблагодарить моих коллег аспирантов которые давали мне мотивацию и оказывали поддержку в моменты взлетов и падений, а также преподносили примеры того что делать и избегать в исследовательской работе. Особая благодарность Ольге Козарь, которая вошла в мою жизнь в первые дни моей работы над диссертацией в Маквайри Университете и с тех пор стала очень хорошим другом.

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## **PREFACE**

As a young student growing up in the Union of Soviet Socialist Republics (USSR), it never occurred to me that I might one day have the opportunity to move to a democratic country such as Australia and pursue a PhD on the topic of career choice.

From my early years, I was always interested in questions relating to social justice, fairness and equal opportunity. Getting older, I realised how much politics, propaganda and manipulation surround these topics. At some point, I lost hope of even being able to talk about these topics without fear of being perceived as a naïve person or even getting in trouble with the government's security services. Meeting the right kind of people at the right time, however, can change a lot of things and such meetings allowed me to reengage with these topics in the form of my thesis.

The fact that I was born in the USSR makes the topic of my study self-explanatory in many ways. Going through free public education in the 1980s made me a true believer in social justice. Of course, the beginning of the 1990s brought with it the collapse of the USSR and this revealed a lot of inconsistencies between what was being said and what was actually being done. Later, living in the United States at the turn of the millennium gave me new ideas and raised alternative histories that were never spoken of and were certainly not studied in Soviet schools. And now, living in Australia, I understand that a coin can have more than one side and that one need not limit herself to a traditional perspective(s) accepted by the majority.

While critical of my Russian education, it did help me develop as a thinker. In fact, I am very grateful for the breadth and depth of knowledge that it provided. When undertaking a five-year comprehensive university degree in teaching entrepreneurship and technologies, I studied a broad range of subjects. They included compulsory subjects for all Russian university degrees, such as studies of history and sport education, and more specialised

subjects in my chosen teaching areas, such as economics and the details of machines. I also had to study additional disciplines relative to my chosen specialisation subjects related to school governance and youth career determination. This broad range of subjects gave me an understanding of the relationships between different study areas, the wellbeing of students, and their future opportunities in life.

At that time, I did not question the aims of the Russian education system, namely preparing politically engaged and economically productive citizens of the country and participating members of the society. I did not think that the education system could or should have purposes other than those listed. It was only later, while pursuing a Graduate Diploma of Education at the Australian Catholic University, that I realised the fundamental differences in purpose of the Russian and Australian educational systems. Being part of individualistic (rather than collectivistic) culture, Australian education was much more focused on aiming to serve the needs of individuals in helping them to achieve their best. Once I understood this, I could see that the conceptual differences between the systems had significant structural implications.

While providing a broader education, the Russian educational system usually required school graduates to choose a general direction or industry in which they would like to pursue their career. Once entering a post-school education system, students have to follow a prescribed program incorporating particular subjects. It is often only when Russian graduates complete their degrees that they are free to make a variety of career choices. In my case, I could choose to work at a school as an economics/business studies, metal/wood technologies, technical drawing, computing/multimedia teacher. I was also prepared to work as a counsellor or psychologist, or work in school administration. Alternatively, my education provided me with knowledge and skills relevant to work in business, such as being an economist, business analyst, marketer or manager. All this said, however, Russian university graduates often (although not always) require additional mentoring or training when entering a specific job.

In contrast, Australian university degrees typically prepare students for specific jobs, providing them with more narrowly specified knowledge and skills, making them more ‘job ready’. This, however, puts greater pressure on high school graduates to make their career choices by selecting specific professions in which they would like to work. Even then, at the end of high school, it might be already too late for getting into some of the most prestigious occupations. Pursuing careers to be a medical doctor or a lawyer, for example, requires Year 8 students to select relevant elective school subjects, which can help them attain entry into certain desirable university degrees. To me, this is to place high expectations on thirteen year-olds, who are influenced by a range of environmental factors and usually considered too immature to make decisions with social implications (i.e., voting for a political leader or driving a car).

Meeting Jim Woolford at the Australian Catholic University, when undertaking a Graduate Diploma of Education in Australia, made me a more reflective thinker. Surprisingly, his course, *Social and Cultural Contexts of Education*, left me with more questions than answers. It made me think about how decisions are made and the ways in which individuals are influenced by their socio-political environments. It also helped me to realise that rather than focusing on the past, I am more interested in looking at the present and future. I wanted to have a better understanding of the career choice process faced by Australian high school students and I was curious about the factors associated with this process and the fairness of career opportunities distribution.

With this backpack on my shoulders, I came to the office of Dr Linda Graham in the Department of Education at Macquarie University. I knew from my Internet research that she was an active researcher with multiple awards and grants, who was interested in questions of social justice, inclusiveness and distribution of opportunities. Fortunately for me, I was able to find a like thinker, a supporter, a mentor and a friend. Linda was able to understand my research interests and direct me to helpful further readings in the areas of political philosophy

and sociology of education. Most importantly, she introduced me to the work of Amartya Sen, which provided me with a fresh perspective from which to examine the career choice capability of young people.

‘Alice came to a fork in the road. ‘Which road do I take?’ she asked.

‘Where do you want to go?’ responded the Cheshire Cat.

‘I don’t know,’ Alice answered.

‘Then,’ said the Cat, ‘it doesn’t matter.’

— Lewis Carroll, *Alice in Wonderland*



# **Chapter One: Introduction**

## **Statement of the Problem**

Career decision-making is an important process, especially for young people preparing for their post-school transitions. While it is often referred to as a personal decision, it affects a large number of stakeholders, including students and their families, schools, local communities and the wider society in general. Increases in youth unemployment in the years following the 2008 Global Financial Crisis have resulted in increased government attention towards youth career determination. The government's proposed solutions – increasing the number of compulsory years of education (Reid & Young, 2012) – limiting access to unemployment benefits for youth (Galliot & Graham, 2015; Testro, 2010), encouraging disadvantaged young people to develop higher aspirations and enrol into higher education (HEPPP, 2014), and providing free access to online career exploration resources (Galliot & Graham, 2014b; McMahon & Tatham, 2008) – have had a positive effect on some student groups. Unfortunately, however, the most disadvantaged and needy students remain largely unaffected by these types of 'solutions' (Reid & Young, 2012).

While some young people have a clear vision of what they would like to do in life, others might go through multiple alternatives before settling on a particular career path. For some, career choice comes with greater difficulties and is associated with periods of career indecisiveness (Creed, Patton, & Prideaux, 2006). Young people who do not have clear career plans while at school tend to have lower-status educational and occupational outcomes post-school completion (Homel & Ryan, 2014; Sikora & Saha, 2011). Those young people who do not make a successful transition to further education, training and/or employment tend to experience periods of unemployment that, in turn, can lead to long-term unemployment (Brotherhood of St Laurence, 2014a). These trends highlight the importance and weight of early career planning in preparing school students for their post-school transitions.

Globalisation has complicated the career decision-making process. Young people in developed economies, such as Australia, face shifts in job markets with occupations requiring low levels of knowledge and skills being outsourced to less economically-developed countries. This leaves low academic achievers and early school leavers with continually decreasing occupational options (Tomlinson, 2012). These changes force schools to develop new strategies to adequately prepare students (especially those whose skills do not match the current job market) for their future career choices.

To date, however, there is little evidence that schools and students have adapted to shifts in occupational demands. According to some reproduction theorists, in dealing with students from working class families, schools tend to continuously reproduce individuals prepared for low skilled occupations (Nolan & Anyon, 2004). This is particularly evident in outer-metropolitan areas of Australia (L. Smith, 2011), where students traditionally went straight from school into manufacturing. Changes due to trade liberalisation and the offshoring of low and middle-skilled jobs to developing countries from the 1980s onwards, however, led to a marked decline in the availability of jobs in this field (Charlton, 2007; Graham, Van Bergen & Sweller, 2015). Whilst governments (state, territory, and federal) have pursued policies aimed at increasing student achievement and educational opportunity, recent research has found that 28% of Year Seven students are insufficiently prepared to engage with the academic demands of secondary school and 26% of senior year students still do not complete Year 12 or equivalent (Lamb, Jackson, Walstab & Huo, 2015). Alongside deficiencies in school preparation, there seems to be a shift in the attribution of responsibility for underachieving young people. In particular, there appears to be much expected of disadvantaged young people themselves in terms of exercising their personal agency in identifying and realising career opportunities (Sellar, 2013).

In an attempt to increase supply of knowledge workers, who possess 'a high level of education and skills and... use information technology as an integral part of the informational



labour process' (Pyöriä, 2005), the Australian Government seeks ways to encourage young people to be more career-decisive and to aspire for higher status occupational choices. Entry to professional occupations usually requires tertiary education, which in turn requires school students to achieve high levels of educational attainment (Esposito & Abbott, 2011). To reach those levels, recent government policies focus on raising the aspirations of young people from disadvantaged backgrounds, including those with low socio-economic status, from regional or remote locations, and Indigenous students (L. Smith, 2011). This strategy assumes that having higher educational or occupational aspiration is likely to be followed by higher achievement/s.

Nevertheless, these attempts to increase youth attainments by raising their aspirations have provoked a number of contradicting opinions. The Australian Government (2009), for example, has stated that the 'little aspirations' (p. 13) of young people from disadvantaged backgrounds create barriers to participation in higher education. However, the research evidence shows that programs that aimed to raise the aspirations of disadvantaged students hardly made any difference to their attainments (Carter-Wall & Whitfield, 2012). This indicates that 'little aspirations' are more likely to be symptoms of a problem related to low educational and occupational attainments, rather than its source.

Recent research criticises policymakers who simplify career guidance and over emphasise individual agency in programs aiming to help the most disadvantaged young people to raise their educational and occupational aspirations (Artazar, 2006; Colley, 2003; Galliot & Graham, 2014b). Agentive career choice formation is a theorization that draws on the work of Amartya Sen (1999). It entails a complex process through which values and goals are realised and a person is able to act and bring about change, so that her or his own achievements can be judged in terms of her or his own goals and values. Despite career decision-making being the focus of research for more than 80 years (Hartung, Porfeli, & Vondracek, 2005), the variety of relationships between numerous variables affecting the

decision-maker is so great that there is still room for the development of theory in a way that will bring our understanding of career decision-making closer to the real process that individuals experience (Jung, 2009). Where researchers in the area of career determination appear to have reached some consensus is that individuals' agency and career aspirations are affected and shaped not only by personal characteristics, but also by environmental contexts (Vondracek, Lerner, & Schulenberg, 1986), as well as the resources available to individuals (Howard et al., 2011).

Despite the complexity and interrelation of the factors affecting students' career decision-making, most studies in the field of career development focus on intrapersonal factors, or in rare examples, on environmental variables; however, projects that analyse both are scarce (Hirschi, Niles, & Akos, 2011). This indicates that in order to better understand the reasons behind career uncertainty, research needs to be capable of simultaneously analysing multiple variables affecting young people on both internal and external levels. Such investigations should provide a valuable contribution to an existing body of research on factors influencing career decision-making.

More importantly, this type of investigation can shed light on the relationships between career determination, individual characteristics and the resources available to individuals, as well as the environmental contexts in which students form career preferences. Findings from such studies will be an important source of information not only for students and their families, but also for career guidance practitioners and educational policymakers. The insights could potentially inform new policies targeting groups that experience the most difficulties in career preference formation.

### **Conceptual Framework**

To better understand which students experience the most difficulties in career aspiration formation and the relevant factors involved, this research project has capitalised on

the ideas of the political philosopher and Nobel laureate, Amartya Sen, and his theory of human development and capability (1992). This approach emphasises that a person's freedom to achieve well-being should be understood not in terms of outcomes, but in *real* opportunities to be and do what they desire and value; in other words, in terms of an individual's capabilities (Lopez-Fogues, 2016). Thus, the approach provides an ideal theoretical framework for an analysis of individuals' capabilities to form career preferences. It facilitates an exploration of an *agentive* career choice, in which a person is able to act for and on their own behalf. According to Berthet, Dechézelles, Gouin and Simon (2009), the 'Capability Approach' is also very suitable for an analysis of the way in which public action, such as educational policies and their outcomes, enable real capabilities of individuals.

Sen's theory of human capability distinguishes between a person's 'functionings' and 'capabilities'. The former refers to an individual's achievements to date, while the latter represents a set of possible future functionings available for a person and depends on his or her real freedom of choice. According to Sen (1992), a person's freedom to choose valuable functionings and their ability to enact them depends on current achievements and the personal characteristics of that individual, as well as the resources available to him or her.

Whilst some might say that an analysis of the differences between the resources accessible to individuals can provide a practical way of comparing the relative advantages of individuals in terms of their capabilities, Sen argues that this is not enough. He reasons that individuals possess different abilities to convert the resources that are available to them into valuable outcomes. Thus, in order to be equally advantaged, two different persons might need different amounts or even types of resources. For example, a person with a learning disability might need extra support and specialised educational resources in order to reach the same academic achievements as a student without a disability. Drawing on these ideas, the current study has developed a conceptual framework which incorporates an examination of a number of variables associated with both the personal backgrounds and educational experiences of

high school students in order to assess factors that may influence their capability to make an informed and agentive career choice (see Chapter Three, the first published journal article in this Thesis by Publication, for detailed explanation).

### **Research aims**

The overarching aim of this research project is to identify which secondary school students experience the most difficulty in their career determination and why. In doing so, this research investigates the differences and similarities between students who can indicate their career aspiration(s) and those who have not yet formed their career preferences by the time they have reached the final four years of high school: Years 9 to 12. Knowing what some students lack and/or what can serve as a catalyst for their career determination could help schools and education systems better prepare young people for their post-school transitions. The results of this study can also provide a valuable contribution to research in the areas of career education, development, guidance and counselling.

This thesis poses the following research questions:

- (1) Which high school students are ready, and which are not yet ready, to envision their desired future career choice?
- (2) What characterises those students who are ‘uncertain’ in their career determination?
- (3) Are there any gaps in the personal and/or educational resources available to ‘career uncertain’ students?
- (4) Do patterns associated with ‘career uncertainty’ highlight any particular educational practices and policies that might benefit from reform?

### **Methodology**

A sequential phase mixed-method research design (Creswell, 2005) was chosen to investigate these research questions. Within this research design, both qualitative and

quantitative methods of data collection and analysis were used. Taking a mixed-methods approach allowed, first of all, the qualitative exploration of issues associated with career determination identified through a review of the literature. This was achieved by conducting a series of student focus groups, which also made it possible to identify additional issues that may be affecting the cohort of interest, but which to date were not a significant feature of the research literature. It was then possible to investigate the relevance of the identified issues to a larger population via survey methodology.

In the first phase of the study, five focus group interviews were conducted with 23 male and female high school students from a variety of government and non-government schools, from different socio-economic backgrounds, and located in both metropolitan and regional areas of New South Wales (NSW), Australia. All participating students were from Year 10 (the year during which young people were expected to be actively engaged in career decision-making, as most Australian schools provide students with some form of career education at that point). Analysis of the focus group interview data helped to inform and improve the survey that was drafted from the literature for the second phase of the study. This process is described in Chapter 5, the second journal article in this Thesis by Publication.

In the second phase of the research project, an online survey was conducted with 706 students attending Years 9-12 in a range of government and non-government schools (12), including those which were selective and non-selective, advantaged and disadvantaged, single sex and co-educational, located in metropolitan, outer-metropolitan and regional areas of NSW. The results from the survey are outlined in Chapters Six, Seven and Eight, which represent the third, fourth and fifth journal articles in this Thesis by Publication.

### **Thesis by publication**

Thesis by publication was chosen as the format of presentation for this thesis for several reasons. The format in which a doctoral thesis is presented in a series of academic

papers written in a journal article format allows the candidate to learn how to write for publication and to disseminate their research findings early in their candidature. This is especially important for topics such as the career aspiration formation of high school students, currently debated in academia and the media. Being able to present and discuss research findings with a wider academic community also provides an opportunity for formal and informal feedback from academics, in addition to the candidate's supervisory team. Received critique opens greater possibilities for improvement of the arguments, and in some cases can lead to long-term collaborations of junior academics with senior researchers in their field.

Structurally, this thesis consists of nine chapters. However, five of the chapters contain scholarly papers that have been written in an academic journal format. Three of these papers have already been published in academic peer-reviewed journals, one was presented at an international conference and published as part of peer-reviewed conference proceedings, and one is undergoing the journal peer-review process at the time of thesis submission. The articles are accompanied by traditionally formatted thesis chapters, some of which function as bridges to and from the papers. These chapters aim to prepare the reader with background information relevant to the study, while others detail complex aspects of research preparation and some act as guides to the reader, summarising what previous chapters did and/or what the coming chapters will attempt to do. Following this introductory chapter, the remaining thesis chapters are arranged into four main sections: Background, Methodology, Results, and Conclusion.

Section 1, 'Background', provides a detailed explanation of the foundations to this research project and includes Chapters Two and Three. Chapter Two provides a review of the multidisciplinary literature associated with career choice determination and explains the positioning of this research project. Chapter Three (Paper One), which was published in the *International Journal of Research and Method in Education*, presents a detailed account of the background associated with the formation of student career aspirations in New South

Wales and develops a conceptual framework for the study. It begins with a critique of recent education policies related to career determination and post-school transitions and draws on Amartya Sen's theory of human capability to challenge assumptions inherent to those policies. The article presents the overarching research question guiding this doctoral investigation, which is:

*Which students have difficulty making an informed and agentic career choice and what kind of personal and educational factors influence their career choice capability?*

Section 2, 'Methodology', includes Chapters Four and Five. Chapter Four outlines some introductory information about the complexities of human agency measurement from a theoretical point of view and justifies the methodology chosen for the study. Chapter Five (Paper Two), which has been published as part of peer-reviewed conference proceedings (and is currently under review with an academic journal), describes how findings from the first exploratory phase of the study involving five focus groups helped to inform, augment and improve a draft survey questionnaire which had been developed from the research literature.

Section 3, 'Results', is the largest section of the thesis and comprises Chapters Six through Eight. Chapter Six, which has been published as a journal article (Paper Three) in the *Journal of Psychologists and Counsellors in Schools*, reports the findings of the cross-sectional survey focusing on differences and similarities among career certain and uncertain students in their personal circumstances, including student characteristics, family background, place of living, parent occupation/SES, gender, age, self-efficacy, certainty in career choice and academic achievement. Chapter Seven (Paper Four), which was published in the *Australian Educational Researcher*, reports findings from the same survey but with the focus on school-based educational experiences associated with students' career preference formation. The factors considered in this paper include type of school and location, electives/subject choice, career education classes/experiences, school liking and school-based work experience. Chapter Eight (Paper Five) which, as at the time of thesis submission, is

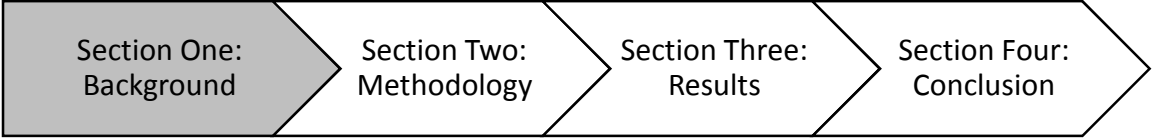
under peer-review in an academic journal reports survey findings related to the effects of educational career information and guidance resources on various student groups and their career certainty.

The thesis concludes with Section Four, 'Conclusion', in which Chapter Nine brings together theory and practice by revisiting the conceptual framework of the study and discussing the obtained empirical findings. The chapter integrates the personal and educational factors affecting students' ability to use the available resources in order to convert them into opportunities. Following the empirical results, the chapter reflects on the research questions and government policies influencing students' career choice capability. It then acknowledges the limitations of the study and proposes a set of implications for researchers, career guidance practitioners and educational policymakers. Lastly, Chapter Nine suggests possibilities for further research.

### **Summary**

This introductory chapter has provided an overview for the study and outlined the main sections of the current thesis. It presented some background to the investigation and outlined the research problem. It also revealed some of the key conceptual ideas that informed the conceptualisation of the problem, research questions, research design, and analysis of the data. Finally, this introductory chapter described the format of the presented study and outlined the contents of the chapters comprising the thesis. The following chapter presents a review of the multidisciplinary literature affecting career choice preference formation in NSW, Australia.





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## **Chapter Two: Literature Review**

### **Career choice capability – Defining the grounds across multidisciplinary literature**

#### **Introduction**

This chapter provides an overview of the literature relevant to the career choice determination of young people in Australia in the second decade of the 21<sup>st</sup> century. As this *Thesis by Publication* consists of several papers written in a journal article format, each containing their own literature review, this chapter provides only a partial overview of the career decision-making related literature in order to avoid unnecessary repetition. This chapter discusses the major influences and factors contributing to the formation and execution of career choice and the abilities of different persons to make an informed career choice. The purpose of this literature review is to define relevant career decision making concepts and their limitations, identify the gap(s) in existing knowledge, establish a theoretical and empirical rationale for the study, and to provide a foundation for the conceptual framework, which will be presented in the next chapter. In other words, the present chapter maps the landscape in which this study takes place and provides the necessary preparation for the subsequent method in which the investigation is to be conducted.

This review of the literature begins by outlining the historical background of career education and development in Australia and discusses, in particular, how the term ‘career’ and its meaning has evolved over time. The review then examines the ways in which the key disciplines related to career decision making of young people, conceptualise and debate youth aspirations and post-school transitions. This section comprises several subtopics including changing economics affecting career choices, youth unemployment, early school leaving,

academic achievement, youth aspirations and attempts to raise aspirations, as well as career education and guidance today.

Finally, the review provides an outline of the theoretical perspectives on career decision-making and canvasses the challenges associated with making career choices. First of all, it reflects on the main theories of career decision-making. Secondly, it presents the notion of career indecisiveness. The review finds that a new perspective is needed in order to evaluate the career choice capability of high school students.

### **Historical background of the term ‘career’ (as used in Australia)**

Since the Anti-Discrimination and Equal Opportunity Acts of 1977, the Australian Government, as well as practitioners and researchers in the field of career education and development, have aimed to provide more equal career opportunities to all students (Schuler, Dowling, & Smart, 1988). However, reforms in education are often associated with uncertainties and take a long time to implement (Spaull & Hince, 1986). Thus, career education programs in New South Wales, as well as in other states, have been through many challenges and changes during the last three decades.

The focus of career education in Australia has changed much over recent decades. Initially, career education programs in Australia were largely influenced by the British model of career education, which was developed in the 1970s and was focused on preparing students to make career choice decisions and to enter the world of work (Lokan, Fleming, & Tuck, 1993). Yet, in spite of this uniform influence, when first introduced into school curricula, career and career education in various Australian states seemed to be understood differently. The Australian Ministerial Council on Education, Employment, Training and Youth Affairs (2009b), for example, acknowledged that initially, ‘career and transition services were inconsistent in quality and availability around Australia’ (para. 2). As a result, not only the

meaning behind the term ‘career’, but also the aims of career education and the composition of its content, varied dramatically across the states.

In 2005, the Department of Education, Science and Training initiated an Australian Blueprint for Career Development, adapted from similar documents developed in Canada and the US (Ministerial Council on Education Employment Training and Youth Affairs, 2009b). In comparison with the previous focus of career education on entering the world of work, the Australian version of the Blueprint has provided a wider definition of career development as ‘the overarching term for describing... the complex process of managing life, learning, and work in the 21st Century’ (Department of Education Science and Training, 2005, p. 9). This, at least in theory, allowed for recognition of a wider variety of life pathways and improved inclusivity of those who do not necessarily associate their career with paid work or a particular job. According to this new definition, for example, a person deciding to look after his or her own children or not to pursue formal (or paid) employment is considered to have a career.

Following release of the Blueprint in 2005, the Australian Commonwealth, state, and territory governments jointly developed the ‘myfuture.edu.au’ website (Myfuture, 2011), aiming to provide a comprehensive online resource for both practising career advisers and counsellors, as well as young people preparing to make a career choice. Myfuture has provided a new perspective on the term ‘career’. It was defined as ‘the sum total of paid and unpaid work, learning and life roles you undertake throughout your life’ (Myfuture, 2011, para. 1). Compared with previous definitions this broader definition of the term ‘career’ took into consideration a much wider variety of possibilities involved in a person’s career trajectories in what is a rapidly developing world.

Nevertheless, despite frequent use in theoretical discourse, as well as in everyday language, the term ‘career’ is very complex, and it is hard to give it one overarching definition that can be used by all stakeholders. The meaning of the term ‘career’ is context dependent

(Coupland, 2004). Thus, while the developers of the Myfuture website invite their online audience to think about ‘careers’ broadly and to be open-minded in relation to the variety of possibilities, practitioners define their role in career advisory services more narrowly as ‘assisting young people in making decisions about work, study and training’ (Career Advisers Association of New South Wales, 2011, p. 1), disregarding the life roles and social participation of students.

The existing inconsistencies between theory and practice demonstrate the complexity of career determination of young people. In a defence of the practitioners and their limited interpretation of the career development service, Kelly (2012) argues that NSW high school career advisers have to work in rapidly changing environments, combining multiple roles and responsibilities and often lacking their own career development and appropriate management support. In any case, the variety and differences in the messages sent to students in relation to what counts as a career might provide a partial explanation of the variances in career decision making support and difficulties involved in the career decision making of young people and their post-school transitions. Other factors affecting youth career determination can be better unfolded once the key relevant discourses are discussed in the following sections.

### **Multiple disciplines enquiring about youth’s career decision-making**

Career decision-making has been studied by philosophers, researchers and practitioners in various other disciplines including psychology, sociology, education, human resource management, economics and industrial relations (Baldock, 1971; Hesketh, 2001; Russell, 2001). In Australia, most of the discourses associated with youth aspirations and post-school transitions seem to be debated in the literature regarding economic transitions, youth unemployment, low academic achievement and early school leaving, educational and occupational aspirations of young people, as well as career education, guidance and counselling. Each of these discourses seems to have its own way of looking at the same problem, with each focusing on specific aspects of it. In a way, each examines a small piece

of the puzzle, providing a better understanding of the reasons behind the career uncertainties of some young people, particularly when combined. Despite the variety of findings across these disciplines, however, there are still some unanswered questions, which have hindered efforts aimed at the improving career certainty of young people.

### *Changing economics and occupational structure*

Economic conditions can lead to both enhancement of and limitation to career choice opportunities for young people. Urbanisation and industrialisation in Europe and North America, for example, resulted in the appearance of a large variety of specialised jobs for people to choose from (Savickas, 2007; Savickas & Baker, 2005). The new era of globalisation, however, has also brought a number of challenges for individuals trying to find a suitable career. Discrepancies in economic development between countries has led to major shifts in national labour markets and migration flows (Qin, 2015). According to Anlezark (2011), the Australian labour market and occupational structures have undergone drastic transformation, particularly over the last twenty years. Some of the main changes included an increase in jobs associated with various services, together with decreases in employment opportunities in the areas of primary production and manufacturing (Anlezark, 2011). Both of these changes demand that youth be flexible and adaptable in the face of an unstable and hard to predict job market.

Young people in developed economies like Australia face additional complications with the labour market when considering their post-school options. Changes in the economy have led to an increase in casual and part-time employment, while full-time opportunities in manufacturing for young persons have decreased dramatically (Anlezark, 2011; Foundation for Young Australians, 2015). This shift eliminated a number of career prospects for those who were not anticipating further study or the obtainment of qualifications and who wanted to enter the workforce immediately after finishing school.

Traditional models of careers, such as joining a manufacturing plant and climbing the career ladder within the same organisation over a lifetime, have become less and less relevant for many workers (Donnelly, 2009). Instead, people in the modern world are encouraged to pursue flexible and limitless careers, and essentially to be agents of their own continuing career development (Donnelly, 2009). According to Olson and Shultz (2013), in order to maintain their own employability, individuals nowadays must be responsive to changes in economic conditions and technology. They are required to constantly update their knowledge, skills and abilities to stay effective and efficient employees (Kotter, 1996; Shultz & Olson, 2013). In a way, modern economic conditions, apart from making traditional career choices less possible, leave the remaining career options less sustainable, which creates a lot of uncertainties for young people confronted with career decision-making.

Within the context of Australia positioning itself as a knowledge economy, citizens are expected and encouraged to use their talents and continue developing and refining their own skills and abilities in order to be considered successful (Olson & Shultz, 2013). Modern organisations expect their employees to engage in ongoing self-investment to remain experts in their field of work (Drucker, 1994; Noe, Hollenbeck, Gerhart, & Wright, 2011). These employer expectations leave little room for job seekers who lack valued abilities, a special skill, degree or qualification. Their situation becomes even worse with increased competition for existing, entry-level job opportunities.

Following the 2008 Global Financial Crisis (GFC), the global economy entered a period of profound shock and most economically developed countries experienced continuous periods of high unemployment and slow growth (Rasiah, Cheong, & Doner, 2014). Young people tend to experience disturbing effects of long-lasting economic downturn, which can manifest in multiple ways, for example, negatively impacting family relationships, stresses associated with income support continuity, and changes in plans related to post-school transitions (American Psychological Association, 2014). In addition, all of these stresses can

lead to low self-esteem, anxiety and other behavioural and emotional complications (American Psychological Association, 2014), which can negatively affect career determination and post-school transitions.

### *Youth unemployment*

Australian youth in the post-GFC era have been disproportionately affected in comparison to the rest of the population in terms unemployment and associated issues. Whilst the unemployment rate rose in the six years following the GFC for the whole working age population, young people were the worst affected. In particular, while the overall rate of seasonally-adjusted unemployment steadily increased from 4.6% in September 2008 to 6.3% at the end of 2014, during the same period of time the unemployment rate for 15-29 year olds increased from 12.9% to 20.1% (Australian Bureau of Statistics, 2014). What is most disturbing is that, at the time of thesis submission (beginning of 2016) and despite multiple government initiatives, the rates of youth unemployment are not improving.

Since 2000, the foundations of the Australian Government's youth policies came partly from research findings indicating that there is a relationship between academic achievements, career determination and post-school transition. Marks and Fleming (1998), for example, conducted an analysis of the 1980-1994 data received from three large, nationally representative school student cohorts from the Longitudinal Survey of Australian Youth (LSAY) Project in order to identify the most significant factors related to youth unemployment. They found that low academic achievements in numeracy and literacy, as well as non-completion of Year 12, had significant associations with youth unemployment. Although Marks and Fleming (1998) failed to provide a sufficient justification of the causal relationship between low academic achievements and youth unemployment, their work, and similar work internationally (Refaeli, Benbenishty, & Eliel-Gev, 2013; E. Smith & Kammermann, 2010), appears to be very influential in the area of educational policymaking. A number of governments in developed economies, including the Australian Government,



considered encouraging youth to stay at school for an extended period (Testro, 2010) and enrolling into tertiary education post-school completion (Gale & Parker, 2014) as a means to improve career determination and reduce youth unemployment, especially for disadvantaged students.

The Australian Government's actions did have some positive effect in assisting young people in their post-school transitions; however, in some cases, one problem was merely substituted for one or several others. For example, the post GFC rates of young people looking for full-time jobs appear to be lower than in previous post crises times, however, Anlezark (2011) suggests that this is partly to do with more young people staying longer in full-time study, thus reducing the numbers of youth otherwise looking for a job. This change leads to youth delaying their search for jobs, but does not necessarily solve the problem of a lack of employment opportunities following their completion of studies. Continuous growth in youth unemployment rates in the last six years seems to support this.

### ***Factors associated with difficulties in post-school transitions***

Research has examined youth unemployment and the difficulties faced by young people in post-school transitions from both psychological and sociological perspectives. Although these studies may identify similar trends, the ways in which they collect and analyse data are often very different. Researchers from a psychology background tend to use more quantitative methods to identify variables associated with career indecision, whereas sociologists more often use qualitative or mixed-method enquiries to probe those variables and/or their effects more deeply. A combination of research findings from both quantitative and qualitative methods seems to be the most helpful in furthering understanding of the problems associated with youth career determination.

Quantitative research drawing on LSAY data indicates that secondary school students are affected by a variety of factors in their post-school transition to work and/or further study

(Dockery, 2010; Sikora & Saha, 2011; Thomson & Hillman, 2010). Based on data taken from a representative Australian wide sample (N ~ 10,000 – 14,000) of young people aged approximately 15 to 25 years old, the research revealed factors including socioeconomic background, gender and level of academic achievement. These factors, however, can have differential effects on students' post-school transitions and career pathways. For example, Thomson and Hillman (2010) found that regardless of academic underachievement, students' motivation and strategic planning are crucial for later satisfaction with life and being fully occupied with education or employment, or a combination of both.

While being a strong positive factor, higher academic achievement does not necessarily guarantee success in career determination and post-school transitions for all high school students. Sikora and Saha (2011) found that about 15% of high-achievers, especially males from low SES backgrounds with low self-assessment of academic abilities and low satisfaction with school, tend to lower their educational and occupational expectations toward the age of 25. This finding highlights that career choice is a context-dependent process, which is influenced not only by students' personal characteristics but also by the conditions in which they make their choices. As a result, students from disadvantaged backgrounds tend to be the most negatively affected in their career determination.

Some of the research based on LSAY data specifically attempted to investigate the personal characteristics and factors associated with career choices and post-school transitions of disadvantaged groups. Curtis and McMillan (2008) highlighted that students identified as low academic achievers and who did not complete Year 12, were more likely to be from government schools, non-nuclear families, non-metropolitan areas, and/or Indigenous. They also found that the consequences for non-completion were more severe for women than men (Curtis & McMillan, 2008). Similarly, Marks (2006) found that women who had not completed high school were 16% less likely than men to have a full-time job in the first year

after leaving school. In addition, Sikora and Saha (2011) identified that not having a career plan has more dramatic consequences for females than for males.

Overall, LSAY makes available a large amount of information about students and their life pathways from school (Longitudinal Surveys of Australian Youth, 2011). This research is useful for current policymakers; however, the vast majority of it is quantitative and while this allows for the identification of statistically significant predictors regarding students' career choices, these findings do not fully explain the subjective reasons underlining the behaviours of individuals.

Sociological approaches often identify the trends associated with career decision-making, as well as investigate and debate possible reasons for the trends. Tomlinson (2012), for example, notes that students with low academic achievements have always existed; however, while those young people could have had successful and productive careers in the era of industrialisation, their lack of skills is not 'useful' in knowledge driven economies relying on post-industrial technologies. This is particularly relevant for countries such as Australia, which attempts to position itself as a knowledge economy.

However, forcing low achievers to remain at school for longer may not be helpful. Vickers and Lamb (2002) argue that states' curriculum and associated policies and regulations impact students' desire to stay at school. This means students may have specific reasons for wanting to leave school early. According to Reid and Young (2012), the most disadvantaged students tend to be concentrated in schools with the fewest resources to engage young people with a diverse range of needs. As a result, it is perhaps not surprising that disengaged young people prefer to leave rather than remain at school. In fact, Reid and Young (2012) argue that in some cases finding a career pathway outside school is more beneficial for non-academic young people. Thus, while the provision of extra years of schooling to disadvantaged students does have its merit, it is not suitable for all.

Research shows that some students are disaffected by the academic school curriculum and a 'policy preoccupation' with university entry (Graham, Van Bergen and Sweller, 2014). While traditionally schools were meant to provide all their students with multiple pathways, currently they seem to be more and more oriented towards academically inclined students (Polesel, 2008). This change is occurring despite the provision of Vocational Education and Training (VET) subjects, due to the fact that they are often treated and perceived as second grade options (Polesel, 2008). As a result, forcing non-academic students to remain at school for an increased number of years could mean that they might not benefit from this process, and some could even receive negative outcomes, such as devaluing or giving up on previously held career aspirations.

### *Youth Aspirations*

One highly debated topic associated with career decision-making and post-school transitions is the effect of youth aspirations on their further educational and employment attainments. Polidano, Hanel and Buddelmeyer (2012) claim that disadvantaged youth are lacking (or have lower) educational and occupational aspirations than advantaged students. As the evidence suggests a link between students' goals and their actual achievements (Beal & Crockett, 2010; Homel & Ryan, 2014; Khoo & Ainley, 2005; Lee, 2010; Sikora & Saha, 2011), some recent Australian policies have attempted to raise the aspirations of the most disadvantaged young people (Australian Government Department of Education, 2014a). The question of connection between aspirations and career outcomes, however, is not as simple as it may seem (Gale & Parker, 2015; Sellar, 2013; L. Smith, 2011) and some believe that artificially increasing aspirations might not necessarily lead to improvement in educational and occupational outcomes. This is because the youth labour market remains a key determinant of those outcomes.

What is known to date is that students' aspirations are influenced by multiple variables. The effects of those variables on career choice and its realisation are very complex

and difficult to predict. Australian-based research, using data from the LSAY study, as well as international comparative studies, identifies a number of students' personal characteristics, as well as external factors affecting youth aspirations. Personal characteristics include gender, home language, Indigenous status, residential location, immigration status and academic achievements (Gemici, Bednarz, Karmel, & Lim, 2014). Some identified external influences include parental expectations (Benner & Mistry, 2007) and peers' educational plans (Buchmann & Dalton, 2002; Gemici et al., 2014). Regardless of whether students hold high or low aspirations, Gemici et al. (2014) argue that 15-year-olds have somewhat unrealistic desires and significant proportions of these young people fall short on achieving their planned occupational outcomes by the age of 25. In a way, this suggests that there is a possibility that focusing solely on raising aspirations of disadvantaged youth might further increase the gap between what is being desired and what is actually achievable for them, taking into consideration potential financial, geographical and social obstacles, which they might encounter on their way to realising their aspirations.

Gale (2015) argues that disadvantaged young people from low socio-economic backgrounds, who are targeted by university outreach programs, do not necessarily lack aspirations, but rather have 'diminished navigational capacities – the result of their limited archives of experience – with which to negotiate their way towards their aspirations' (p. 267). Nevertheless, questions remain as to why some young people are aspiring high, using available educational resources and making their career choices and post-school transitions to further employment, education or training and why others are not. What are the differences between those groups? What kind of 'archives of experience,' if any, are missing that could help career-uncertain young people?

Bok (2010) notes that students from disadvantaged backgrounds often have very high aspirations; however, without the cultural capital of high socioeconomic families, those students are trying to achieve high performance without the requisite capacities. The

participating teacher in Bok's (2010) case study of four students from low SES backgrounds aspiring to higher education describes low SES students' attempts to reach their dream careers as trying to 'do a play without a script' (p. 175). Apart from lacking a script, disadvantaged students might be lacking role models, director, costumes, and with budget cuts in education, they might not even have a stage upon which to realise their aspirations.

Some of the Australian Government's proposed reforms in the area of post-school education might lead to even more young people lowering their actual achievements in comparison with their desired outcomes. If implemented, the higher education reforms proposed by Education Minister Christopher Pyne in January 2015, which are still the government's policy despite being blocked twice by the Senate, will significantly increase the cost of tertiary education for young people (Woodley, 2015). As a result, the most disadvantaged students would not be able to afford tertiary education. In this context, raising youth aspirations is not likely to lead to increased educational and occupational outcomes; for many young people the dream of achieving a university education and entering a prestigious occupation would be simply unaffordable.

The difference between what students aspire to and their actual achievements might be explained by the differences between the concepts of career aspirations and career expectations (Wilson, 2011). While the former refers to the career that an individual ideally would like to have, the latter represents a career in which a person can actually envision him or herself (Whiston & Keller, 2004). While both idealised aspirations and more realistic career expectations influence students' educational attainments (Beal & Crockett, 2010), these constructs have no significant relationship between themselves (McNulty & Borgen, 1988). This suggests that high career aspirations should be accompanied by appropriate guidance and building of the students' capacities to realise their ideal careers and make those career options more feasible for individuals.

A number of researchers have previously studied the compromises that young people make in terms of their career aspirations (Creed & Gagliardi, 2015; Creed, Wamelink, & Hu, 2015; Leung & Plake, 1990; Tsaousides & Jome, 2008), with Gottfredson (1981) being one of the first to theorise this phenomenon. According to Gottfredson (1981), occupational compromise can fall under one of the following two categories: anticipatory and experimental career compromise. Anticipatory compromise happens when a person feels that their dream career is not accessible to him or her. Experimental career compromise occurs when a person changes his or her aspirations due to being unsuccessful in securing employment in a desired industry. Both of these compromise types are more likely to happen for disadvantaged than advantaged youth, due to limited networking opportunities and access to cultural capital.

Gale (2015), however, advocates that governments move away from a deficit model and from the research focusing narrowly on what disadvantaged students may 'lack'. He argues that whilst the aspirations of disadvantaged students might be different to those prescribed by a neo-liberal 'social imaginary' (Gale, 2015, p. 258), this does not mean those aspirations are undeserving of support. Modern political discourse in the area of post-school transitions rewards those who aspire toward high incomes. Students receive a variety of mixed signals, influences, and judgements about their career aspirations. On one hand, they are told to explore what they like doing and what they are good in, and to choose a career associated with their interests and strengths (Myfuture, 2012). On the other hand, those students who are considered to have 'low' aspirations by modern standards (Sellar, 2013), unfortunately, are often treated in a way that highlights to them that their career preferences are not good enough. Thus, multiple and sometimes contradicting messages can lead to confusion in the still-developing minds of young people.

### **Career choice and career indecision**

The notions of career and career choice have long been researched in the field of social sciences and there has been a growing awareness of the constructed nature of these

concepts (Coupland, 2004). As such, Social Cognitive Career Theory considers intrapersonal variables such as socioeconomic status, gender and ethnicity/race to be important contextual factors which influence a person's type and level of access to various resources and associated experiences of discrimination (Lent, Brown, & Hackett, 2000). The effects of these variables on students' career decision making, however, seem to be unstable and difficult to predict. For example, findings from the youth career aspirations survey of more than 22,000 students in Grade 8 and 10 conducted by Howard and colleagues (2011) in the United States revealed that the influence of socioeconomic status on career aspirations varies across different groups and may not be meaningful for adolescents.

Effects of the external environment on students' career aspiration formation are also quite complex. According to Gottfredson's Theory of Circumscription and Compromise (Gottfredson, 1981), expectations of society, family and peers shape a person's self-conceptions and career preferences to a great extent. However, despite numerous researchers agreeing that environmental variables weigh more than personal, the question of the way in which individual occupational choices are influenced by social variables remains open (Vilhjálmsdóttir & Arnkelsson, 2013). Nevertheless, while there are currently more and more expectations from young people to exercise their personal agency in career decision-making, the effects of the external environmental factors are often underestimated or ignored.

Not surprisingly, many young people see career decision-making as a difficult process that puts a lot of pressure on individuals and can lead to periods of career indecision (Jung, 2009). There has been a lot of valuable research in this area but there seems to be a disconnection between education policy, school curriculums and career education practice. The phenomenon of career indecision and associated issues and influencing factors have been intensively studied since 1950 (Super, 1957) and remains one of the major topics of investigation in the area of vocational psychology today (Brown & Rector, 2008; Phillips & Paziienza, 1988; Savickas, 1995; Skorikov, 2007). The researchers, however, still have not



agreed on the exact dimensions of career indecision (Gati et al., 2011; Gati, Krausz, & Osipow, 1996; Gerjmeijs & De Boeck, 2002; Osipow, 1999), leaving room for further research in this area.

The definitions of career indecision seem to vary (Jung, 2009), with some researchers identifying it as the inability of a person to specify his or her educational and/or occupational choices (Guay, Senecal, Gauthier, & Fernet, 2003; Kelly & Lee, 2002; Leong & Chervinko, 1996) and others describing it as problems that persons may encounter during career decision-making (Brown & Rector, 2008; Gati et al., 1996; Osipow, 1999; Phillips & Pazienza, 1988). In addition, researchers separate the constructs of career *indecision* and *indecisiveness*. The first type refers to the developmental stage or transitional period of career decision-making (Di Fabio, Palazzeschi, Asulin-Peretz, & Gati, 2013), and is regarded as a normal part of career preference formation (Creed et al., 2006). According to Gati et al. (1996), career indecision happens due to a lack of readiness for career decision-making or, for those who are actively involved in career exploration, indecision can occur because of the lack of information and inconsistent information.

In contrast to *indecision*, career *indecisiveness* is often referred to as chronic career indecision (Fuqua & Hartman, 1983; Hartman & Fuqua, 1983). This type of indecision is usually present across multiple domains of a person's life. Researchers associate indecisiveness with a number of personal characteristics such as low problem-solving abilities and high anxiety (Di Fabio et al., 2013), neuroticism (Jackson, Furnham, & Lawty-Jones, 1999), obsessive–compulsive tendencies (Frost & Shows, 1993; Gayton, Clavin, Clavin, & Broida, 1994), procrastination (Beswick, Rothblum, & Mann, 1988; Effert & Ferrari, 1989; Ferrari, 1992), perfectionism (Frost & Shows, 1993; Gayton et al., 1994), and low self-esteem (Burka & Yuen, 1983; Ferrari, 1991). In addition, indecisiveness was found to be negatively-correlated with the self-efficacy of a person's decision-making (Rassin, Muris, Franken, Smit,

& Wong, 2007). Despite of a number of identified associations with career indecisiveness, the discussions regarding reasons and causality behind these factors are limited.

New theoretical approaches tend to emphasise the importance of investigating personal and environmental variables simultaneously (J. B. Walsh & Chartrand, 1994), and encourage greater contextualisation (Coupland, 2004). This doctoral study aims to combine these recommendations with ideas of the political philosopher Amartya Sen and his theory of human capability in order to develop a conceptual framework to guide an empirical study of career choice capability (see Chapter Three).

### **Summary**

This chapter discussed the existing discrepancies between career guidance theory and practice and the associated decision-making support and guidance provided to school students. The chapter highlighted that the Australian knowledge economy demands that young people be active agents of their own continuing career development, constantly upscaling themselves and being flexible and adaptable to an increasingly unsustainable job market. This leaves a lot of uncertainties for less academic (and, in multiple other ways, disadvantaged) young people without special knowledge, ability or skill, who are often the most burdened by unemployment in post-economic crises times. The Australian Government funds a number of initiatives to encourage disadvantaged young people to think about their aspirations, aim higher and study for longer in order to achieve better educational and employment outcomes. However, this chapter has argued that school systems are still experiencing difficulties in serving diverse student groups and some questions remain as to why some young people have difficulty in career determination when others do not.

## Chapter Three: Conceptual Framework –

### Paper One

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Chapter Two sketched a landscape of the multiple discourses surrounding youth career determination. It suggested that multiple factors influence career determination. Despite numerous scholars working on the topic, there are still gaps in the research literature regarding why and in which way some young people are affected, whilst others are not. This chapter, presented as Paper One, engages in critical discussion of how the problem of youth career determination is seen within the Australian political discourses and what kind of treatment it receives. Analysing several government initiatives affecting youth career determination and post-school transitions, the paper argues that these policies are ineffective for certain groups of young people. It applies a critical lens to these policies by identifying a list of untested assumptions behind them and suggests that further investigation of the career choice capability of high school students is required. Drawing on the work of political philosopher, Amartya Sen (1992), it then proposes a conceptual framework developed with the specific aim (Shields & Rangarajan, 2013) of investigating the capability of young people to make sound career choices. As part of a theoretical and philosophical conceptual framing, Paper One poses research questions for investigating career choice capability. The questions appear in a slightly different form from the way in which they are operationalised and stated in the Introduction of this thesis. Despite being worded differently, however, they are in essence the same.

# **A QUESTION OF AGENCY: Applying Sen's theory of human capability to the concept of secondary school student career 'choice'**

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## **Abstract**

In this paper, we seek to operationalise Amartya Sen's concept of human capability to guide a scholarly investigation of student career choice capability. We begin by outlining factors affecting youth labour markets in Australia; a prosperous country that is affected by a 'two-speed' national economy. We then examine recent government initiatives that have been designed to combat youth unemployment and cyclical disadvantage by enhancing the aspirations and career knowledge of secondary school students. We argue that these policy measures are based on four assumptions: first, that career choice capability is a problem of individual agency; secondly, that the dissemination of career information can empower students to act as 'consumers' in an unequal job market; thirdly, that agency is simply a question of will; and finally, that school education and career advice – as a means to freedom in the space of career development – is of equal quality, distribution and value to an increasingly diverse range of upper secondary school students. The paper concludes by outlining a conceptual framework capable of informing an empirical research project that aims to test these assumptions by measuring and comparing differences between groups in the range of freedom to achieve and, therefore, to choose.

**Key Words:** Amartya Sen, capabilities, agency, career education and development, post-school transitions.

## **A Miracle Economy**

*Three former Australian Prime Ministers and six Treasurers were among the guests at a Reserve Bank of Australia (RBA) dinner in February 2010. The event formally celebrated the 50<sup>th</sup> anniversary of the creation of the Bank. Many of the guests, however, were celebrating a wider theme.*

*By February it had become clear that Australia had not only avoided recession after the global financial crisis which climaxed in the second half of 2008, but was doing quite well ... a few days after the RBA dinner Australians would learn that the unemployment rate had fallen in January.*

*In Europe and the United States, 10% of the workforce was unemployed. The member economies of the Organisation for Economic Co-operation and Development (OECD) had lost four million jobs since the downturn began. In the 15 months since Lehman Brothers investment bank collapsed and the global economy froze, Australia had added another 166,000 jobs (Edwards, 2010, p. 359).*

According to most international commentators, Australia escaped the Global Financial Crisis (GFC) and subsequent global recession with only 'light injuries' (Edwards, 2010, p. 363). While economic growth did slow and the national budget is still in deficit, government debt is modest relative to other major world economies (Edwards, 2010). With rising GDP per capita, low inflation and national unemployment at 5.4%, Australia's economic fundamentals look strong. A number of reasons – including the conservatism of Australian financial institutions and the benefits of economic reforms of the 1980s (Quiggin, 2010) – have been offered to explain Australia's economic resiliency in recent years. While there are several contributing factors, few deny that huge profits from Australia's trade relationship with a resource-hungry China have served to underwrite the national accounts. Headline aggregates,

however, mask deep fissures. A lack of flow-through from mining profits has resulted in a 'two-speed' economy (Garton, 2008) with strong growth in concentrated resource-rich areas of outback Western Australia and Queensland set against negative growth in the manufacturing, finance and retail sectors that feed the major population centres in New South Wales and Victoria. Not surprisingly, this dual-economy also affects labour markets, the largest of which is in the state of New South Wales.

New South Wales (NSW) is Australia's oldest and most populous state with a workforce of approximately 3.5 million accounting for one third of national GDP (Australian Bureau of Statistics, 2011b; NSW Department of Trade & Investment Regional Infrastructure & Services, 2011). Mining is still an important industry in NSW but finance, retail, manufacturing and tourism are more central to the state's economy (Access Economics, 2010). Together these industries employ the majority of people living in NSW; however, each has been hard hit since the GFC. For example, there are 2.5 times the number of unemployed persons in NSW than in Western Australia (Australian Bureau of Statistics, 2011b). NSW is also the destination of choice for new migrants and asylum seekers with larger proportions of unskilled workers settling in Western and South-Western Sydney; a traditional manufacturing basin that is now experiencing higher unemployment (6.2-8.8%) than the state average (5.31%) (Department of Education Employment and Workplace Relations, 2013).

Two particularly vulnerable groups within the low-skilled labour market are low-attainers and early school leavers who are disproportionately represented in both national and state unemployment figures. At almost 18%, the unemployment rate for 15 – 19 year olds living in NSW is higher than both the state's average unemployment rate (5.31%) and the national youth unemployment rate of 16.9% (Australian Bureau of Statistics, 2011b). Again however, state and national aggregates mask deep pockets. For example, on the NSW Central Coast, which is within commuting distance of Australia's largest city of Sydney, some 39.3%

of young people are jobless (Mission Australia, 2010) and the majority of these are from disadvantaged backgrounds.

Students from a disadvantaged background are particularly vulnerable to experiencing difficulties in making the post-school transition to work and, as time passes, significant numbers join the ranks of the long-term unemployed (Thomson & Hillman, 2010). This phenomenon, which first took hold in the mid-1980s, is in large part due to changes in the Australian economy over time. As in many other developed nations competing in a global economy (Tomlinson, 2012), significant decline in the Australian manufacturing sector has led to less opportunities for low-skilled workers (Charlton, 2007). In Australia, as in the UK, traditional beliefs about individual responsibility and collective contribution to wealth creation combine to drive public anxiety about what to do with large numbers of seemingly idle and potentially dangerous young people (Tomlinson, 2012).

### **Government initiatives to address the problem of youth unemployment**

The Australian Government has recently implemented a number of strategies to counter growing youth unemployment and to promote further education and training. One such example is the National Partnership Agreement on Youth Attainment and Transitions (Department of Education Employment and Workplace Relations, 2011), which is often referred to as the 'Learn or Earn' policy (Testro, 2010). The initiative aims to increase educational engagement and post-school transition to higher education, training and employment for 15-24 year olds (Keating, Savage, & Polesel, 2012). One of the objectives of the agreement is to achieve 90% Year 12 (or its equivalent) attainment nationally by 2015 (Council of Australian Governments, 2009).

To promote compliance, the Australian Government has made 'access to Youth Allowance and Family Tax Benefit conditional on participation in education, training or employment' (Testro, 2010, p. 3). In partnership, the NSW government recently increased the

age of compulsory education from 15 to 17 years old (Reid & Young, 2012), however, there is no guarantee that students now forced to remain at school until they are 17 will be any better prepared to enter the world of work or engage in further study. Instead, schools report increasing difficulty catering to growing numbers of disaffected students for whom there is no alternative occupation (Granite & Graham, 2012; Slee, 2011). While 'Learn or Earn' promotes the concept of multiple pathways, Reid and Young (2012) argue that the pathways available are not the same, as schools' abilities to provide a range of subjects and career choice-related experiences are often limited by their resources. Smaller schools in disadvantaged areas, especially those with a diverse student population and limited social capital, struggle the most (Reid & Young, 2012). Furthermore, Keating, Savage and Polesel (2012) warn that promoting quantity of years of education over quality of educational experiences puts at risk the purpose behind the policy. While there is an assumption that an increase in years of schooling provides young people with better employment and further education opportunities, there is research evidence that for some student groups leaving school earlier (and, for example, entering into an apprenticeship) can bring better outcomes (Keating et al., 2012).

The 'MyFuture' website ([www.myfuture.edu.au](http://www.myfuture.edu.au)) is another 'multiple-pathway' strategy aimed at improving school-to-work transitions with the objective of reducing youth unemployment. This 'National Career Information System' was established in 2002 to provide information about career opportunities for students and other citizens looking for career change or employment (M. McMahon & Tatham, 2008). MyFuture relies on individuals to navigate through provided content to choose the most suitable option for their interests, knowledge and abilities. The website was developed jointly by the Commonwealth, state and territory governments through the Department of Education, Training and Youth Affairs (DETYA)<sup>1</sup> and with the approval of the Ministerial Council on Employment, Education, Training and Youth Affairs (MCEETYA) (Myfuture, 2012). McMahon and



Tatham describe MyFuture as a ‘career information and exploration’ online service and state that young people ‘need to develop the competencies to be effective and discerning users of career and occupational information’ (M. McMahon & Tatham, 2008, pp. 2, 14). Such approaches to public policy are based on neoliberal conceptions of competitive markets and the belief that citizens are self-interested consumers who, once provided with information, can make agentic choices and, in so doing, drive improvements in public services (Ball, 1993). The Australian Labor government has embarked on a series of such informational exercises in recent years, including MyUniversity (which provides a comparison of details such as fees, entry requirements, demographics and satisfaction of students enrolled at Australian higher education institutions); MySchool (which compares student performance on national literacy and numeracy assessments in Years 3, 5, 7 and 9 on a school-to-school basis as a mechanism to promote parent choice); and MyChild (which provides parents with information about types of child care, quality ratings of different service providers, costs and placement availability). Unfortunately however, there seems to be no evidence that the information provided through the MyFuture web site is translated into school practice (Board of Studies New South Wales, 2008), and the decisions as to what kinds of information should be made available to students, as well as the timing of its access and exploration, are often left to career advisors whose expectations of students may influence what information is and is not provided to them.

A third policy that aims to increase youth participation in education and training is the Australian Government’s Higher Education Partnerships and Participation Program (HEPPP). Like Aimhigher, introduced by the UK government in 2000, HEPPP aims to raise aspirations and increase participation in tertiary education, particularly for under-represented groups and students from disadvantaged backgrounds. The Australian Government has set specific targets of 40% of all 25-34 year olds to be degree-qualified at bachelor level or above by 2025, with 20% of student enrolments at undergraduate level coming from disadvantaged backgrounds

by 2020 (Commonwealth of Australia, 2009; Department of Industry Innovation Science Research and Tertiary Education, n.d.). In order to achieve this goal, a range of universities across the country (both individually and in consortiums) can access \$433 million in federal funding; \$108 million of which has been made available through competitive grants ‘for partnerships programs to link universities with low SES schools and vocational education and training providers’ (Commonwealth of Australia, 2009). Since the launch of HEPPP in 2010, the number of accelerated university entry programs, school-university partnerships and student out-reach programs, such as ‘Bridges to Education’<sup>2</sup>, have mushroomed. More lately however, this approach has been criticised for concentrating on the final years of upper secondary school when ‘all the patterns of behaviour and decision-making about achievement and aspiration would have been formed well before’ (Gale as quoted in Healy, 2010).

It is interesting that the Australian Government chose not to examine the UK experience, which was in evidence prior to their assimilation of the policy. According to reports emerging from the UK, AimHigher succeeded in increasing participation in higher education but it failed to widen access beyond ‘easy to reach,’ and ‘high profile’ groups (McCaig & Bowers-Brown, 2007). In effect, AimHigher simply promoted higher education among young people for whom it was already a viable option, as opposed to recruiting new groups of students for whom higher education had not previously been available. Upon discontinuation of the program, the new Coalition government noted that AimHigher had worked well to raise aspirations (Attwood, 2010) but that a ‘whole-of-education approach’ to social mobility was required and that governments needed to start much earlier with students in schools (para. 3). Admittedly, while many out-reach programs, such as Macquarie University’s Learning Education Aspiration Participation (LEAP) and the University of Sydney’s Compass, involve university-school engagement with both primary and secondary schools, such programs do nothing to affect what is *taught* in schools, nor how *well* it is taught and to *whom*. Certainly these programs do nothing to offset the gradient of the

academic school curriculum; the ‘cognitive architecture’ of which is, paradoxically, dictated by university entrance requirements (Teese, 2000).

Meanwhile, research has found that young people from disadvantaged backgrounds do not necessarily lack aspirations, rather these students tend to lack solid understanding of what is technically required and strategies needed to realise their goals (Saha & Sikora, 2008). Indeed, many young people currently forced to stay at school would prefer to be working, however, the evaporation of demand for unskilled manual labour in the manufacturing sector has significantly reduced availability of the types of jobs many of these young people would prefer to do (Meijers & Te Riele, 2004). Rather than acknowledge this reality, the Australian Government has sought to borrow policies that aim to address early school leaving and growing youth unemployment by raising aspirations, promoting school-to-work transitions and participation in higher education. However, given that policies borrowed from other contexts typically have ‘little to do with the success of policy in its original context and more to do with justifying existing ideologies and policies’ (Reid & Young, 2012, p. 799), such approaches are vulnerable to failure.

In our view, policy strategies like ‘Learn or Earn’, ‘MyFuture’ and HEPPP risk missing the mark because they are based on two fundamental and related assumptions: first, that career choice (in)capability is a problem of individual agency; and secondly, that the dissemination of information can empower students to act as ‘consumers’ in a competitive career market. Inherent to each of these assumptions however is a third, deeper assumption: that agentic action is simply a question of will. Such constructions deny that agency is formatively shaped by both individual and environmental factors (Bandura, 1991, 2001). In the space of career choice capability, for example, agentic career choice is only possible if and when a young person has been exposed to a wide range of achievable futures,<sup>3</sup> if they believe that such a future is possible for them, if they know and understand the steps required for them to realise that future, and most importantly, if they have developed the requisite

skills and abilities to engage in the further training or study needed during their years at school. In other words, policies like ‘Earn or Learn’, ‘MyFuture’ and HEPPP often fail because they focus too narrowly on what Amartya Sen (1999) describes as the *means* to freedom with neglect to differences in the ability of individuals to convert those means *into* freedoms.

Also neglected in current policy thinking is the role of school education (as one such means to freedom) in the formation of individual preferences and abilities (Jonathan, 1995). Acknowledgement of the foundational role played by school education in the development of individual beliefs, desires, knowledge and capacity highlights a fourth assumption underpinning these three policy strategies; which is, that the means available to young people (in this case, school education and career advice) are of equal quality, equal distribution and equal value to an increasingly diverse range of secondary school students.<sup>4</sup>

In the following sections, we draw on Amartya Sen’s concept of human capability to assist us in questioning these assumptions and the role of education in the development of student career choice capability. We then draw these ideas into a conceptual framework that has been designed to inform an empirical research project aimed at testing the validity of the assumptions behind recent policy strategies and whether all secondary school students are equally capable of ‘choosing’.

### **Education and Opportunity**

Since Rawls’ (1971) theory of ‘justice as fairness’ the notion of equal opportunity has generated intense scholarly interest and the field of education is no exception. The literature features an impressive lineage of scholarly work devoted to issues of equality and inequality and the path towards an equitable distribution of these through equality of opportunity. At the same time empirical research has demonstrated that true equality of opportunity in education is a fiction (Coleman, 1968; Jencks et al., 1972). Inequality in parental income and private

circumstances affect a child's ability to capitalise upon the learning experiences provided to effectively scale an academic curriculum (Teese, 2000). Some succeed but many do not and students become stratified accordingly. International comparative research confirms that academic stratification corresponds with social and economic stratification (McGaw, 2005).

Despite this, discourses that speak of equal educational opportunity position opportunity as passive and the student as an active agent (L. J. Graham, 2009). Opportunity, particularly with regards to education, is seen as something there 'for the taking'. In many modern liberal democracies like the US, UK and Australia, the 'equal' provision of resources, in this case public education, is understood as the levelling of starting blocks. From there it is assumed that each child has an equal opportunity to succeed for they each enjoy formal access to an education that is considered high quality by international standards (Burbules, Lord, & Sherman, 1982). As the economist, political philosopher and Nobel Laureate Amartya Sen points out though, not all people are presented with the same means and not all can share in the same opportunities.

### **Capability and Agency Freedom**

One of Sen's major contributions to political philosophy was to make it clear that persons possess different abilities that can affect their conversion of resources into achievements. In so doing, Sen (1992, p. 38) pointed to a fundamental gap in Rawls' (1971) theory of justice, which focused on the redistribution of primary goods to improve the position of the least well-favoured, arguing that 'comparisons of resources and primary goods cannot serve as the basis for comparing freedoms'. Sen (1990) argued that resources or primary goods represent only *means* to freedoms and that Rawlsian theory neglects the inequality in people's powers to *convert* these means 'into the achievement of ends' (Sen, 1990, p. 120). To address this oversight, Sen offered his concept of human capability, which he maintains:

...can help to identify the possibility that two persons can have very different substantial opportunities even when they have exactly the same set of means: for example, a disabled person can do far less than an able-bodied person can, with exactly the same income and other 'primary goods'. The disabled person cannot, thus, be judged to be equally advantaged – with the same opportunities – as the person without any physical handicap but with the same set of means or instruments (p. 154).

Underpinning the capability approach is the concept of positive liberty or 'agency freedom' and the recognition that agentive action requires a level of capability that is neither equally distributed nor innate. The value of this approach, according to Sen (1992), is that an analysis of inequalities in individual achievement can help to identify inequalities in the respective freedoms that are available to individuals. Rather than simply comparing respective achievements, the focus moves to differences in the *freedom to achieve*. This, he argues:

...requires us to reject such proposed rules of freedom assessment as the counting of the number of alternatives in the 'range of choice'. More constructively, it suggests practical ways of using observable data regarding achievements to get a partial but significant view of the freedoms enjoyed by different persons (p. 5).

This suggests that in order to be able to make a judgement regarding high school students' career choice capability, one should move beyond the potential number of career options available for students. A more appropriate approach is to examine students' current achievements, aspirations, career knowledge and educational experience.

Informing Sen's approach to analysing achievements is his concept of individual 'functionings' (the things people are actually able to be and do). These can, he says, vary from satisfying the most elementary of needs, 'such as being well-nourished, avoiding escapable morbidity and premature mortality, etc., to quite complex and sophisticated achievements, such as having self-respect, being able to take part in the community, and so

on' (Sen, 1992, p. 5). Thus, to understand students' readiness to make an agentic career choice, it is vital to analyse a wide range of their functionings from how well informed they are to how developed their self-efficacy is. Sen's view is that refocusing on the space of functionings – and on the capability to achieve valued functionings – shifts the traditional locus of scrutiny from in/equality in the *means* to achieve freedom (through redistribution of resources, primary goods and so on) to *in/equality in the freedom to achieve*, which is dependent on the power that persons possess to make use of those means. As such, Sen prompts us to move away from counting the distribution of primary goods, such as years of schooling, to refocus on the ability to convert years of schooling to valued career opportunities. This does not mean however that we can afford to ignore differences in public goods or resources. In the following section, we consider school education as a case in point.

### **Capability and Education**

While Sen has been clear about the effect of individual differences in how persons may make use of primary goods, to this point there has been remarkably little focus in the broader capability literature on differences in the quality and effectiveness of the goods themselves. This is a particularly important distinction when it comes to school education as a number of researchers in the field have pointed out. For example, Graham and Harwood (2011) caution that, if used naively, 'Sen's capability approach is in danger of perpetuating an individual deficit model [as] the temptation may arise to focus simply on building the individual capacity of students without recognising what structural and political barriers impede their participation' (p. 137). Unterhalter (2003) also criticises his assumption that education necessarily makes a positive contribution, arguing that 'education is twinned with freedom or capabilities and the assumption is that education will always be beneficial, an enhancement of freedom, and as such a component of capability' (p. 11). Whilst otherwise supportive of his capability approach, Unterhalter (2003) notes that Sen's view of education

‘fails to take account of contestations and complicities predicated on unequal social relations within schools’ (p. 8) and that his analysis:

...takes no account of differences in form or outcome of education. It is not concerned, for example, with the range of epistemic privileging in different education systems and the diverse effects of these. Nor is it concerned with the different modalities of education – processes of learning, teaching, assessment and management – and their differing and sometimes contradictory consequences for different groups (Unterhalter, 2003, p. 8).

Indeed, Unterhalter (2003) argues that formal schooling can itself be a source of capability deprivation by reproducing existing inequalities. Firstly, education can itself be a source of direct deprivation (e.g. some students might receive less or no education in comparison with others); and, secondly, lack of educational experiences might result in other deprivations that result in, for example, lack of adequate knowledge for career decision making. Therefore, a person’s agency achievement, or ‘realisation of goals and values she has reasons to pursue’ (Sen, 1992, p. 56) can be restricted by factors outside of their control whether or not they receive formal access to the good in question.

What this means is that education is not a simple public good for knowledge and skills are not base commodities that can be equitably distributed or accessed in the same way that, say, antibiotics or vaccines might be. While Sen’s distinction between means and ends might prompt us to note that penicillin is not universally tolerated and therefore equal use cannot be made of it, the focus still remains on the tolerance of the individual and not on issues relating to the good itself. In this paper, we call for extended thinking when it comes to education and Capability for, unlike penicillin, the education ‘vaccine’ is inherently unstable, and can differ markedly in both quality and content across countries, regions, schools and classrooms (Collins, 2009).



There are two issues building here: the first, to which we were alerted by Sen, is that students possess different abilities to make use of the raw materials provided to them via their educational experience. The second is that the raw materials themselves are not the same. Countless studies by educational sociologists have shown that the same curriculum can be developed entirely differently in different schools, in different regions and by different teachers (M. Apple & King, 1977; Nolan & Anyon, 2004). Social reproduction theorists have demonstrated how children in upper middle-class areas are encouraged to be entrepreneurial in their thinking and are exposed to a broader, more intellectually challenging version of the curriculum than are children in working-class or disadvantaged areas (Anyon, 1980). Similar findings over decades of research clearly demonstrate that education is not a simple or stable public good. It is variable in quality and it varies in delivery between systems, between schools and even between classrooms. And, as a result of the ‘social class reproduction in curriculum and instruction’ (Luke, 2010, p. 167), ‘different “kinds” of students get different “kinds” of knowledge’ (M. Apple & King, 1977, p. 343).

### **Education and freedom**

The debate as to whether and how education can contribute to individuals’ abilities has a long history and often reflects the times of the discussion. Since the 1970s, when reproduction theories were developed in order to explain the way in which inequalities in industrial societies were reproduced (M. Apple & King, 1977; Collins, 2009), an array of theoretical discourses emerged in the attempt to understand the role of individual and group initiatives in the reproduction process (Collins, 2009). Samuel Bowles and Herbert Gintis (1976) argued that schools did not simply reproduce social inequalities but that schools were *designed* to reproduce social inequalities ‘through a structural correspondence between its social relations and those of production’ (p. 131). Later however, Bowles and Gintis (2002) admitted that their earlier analysis privileged structure over agency and positioned individuals

‘in an entirely passive role, a mere receptacle of the content of socialization, rather than an active participant in the process’ (p. 12). Giroux (1983) went further:

By downplaying the importance of human agency and the notion of resistance, reproduction theories offer little hope for challenging and changing the repressive features of schooling. By ignoring the contradictions and struggles that exist in schools, these theories not only dissolve human agency, they unknowingly provide a rationale for not examining teachers and students in concrete school settings (p. 259).

Resistance theory promised to redress the structural determinism of reproduction theory. For example, Paul Willis (1981) looked at the process of reproduction from a dialectical perspective acknowledging that ‘students are not passive receptacles of the dominant ideology but play an active role’ (Nolan & Anyon, 2004, p. 139). Willis described how working class students in his study, while supposedly being given an opportunity to engage in learning and gain access to the world of work, were resistant to accept and adapt to school culture, in effect, denying their own admission to middle-class employment and social mobility (Willis, 1981). However, while Giroux agrees that ‘theories of resistance restore a degree of agency and innovation’ (Giroux, 1983, p. 260), in the end, Willis’ ‘Lads’ were no better off than the automatons of Bowles and Gintis’ correspondence theory. On their own, neither reproduction nor resistance theories can fully account for *both* structure and agency:

...despite their concrete differences, resistance and reproduction approaches to education share the failure of recycling and reproducing the dualism between agency and structure ... Consequently, neither position provides the foundation for a theory of education that links structures and institutions to human agency and action in a dialectical manner (Giroux, 1983, p. 261).

We are persuaded by Mills (2008) who argues that while schools and teachers have the potential to reproduce they also have the power to transform, which can be especially

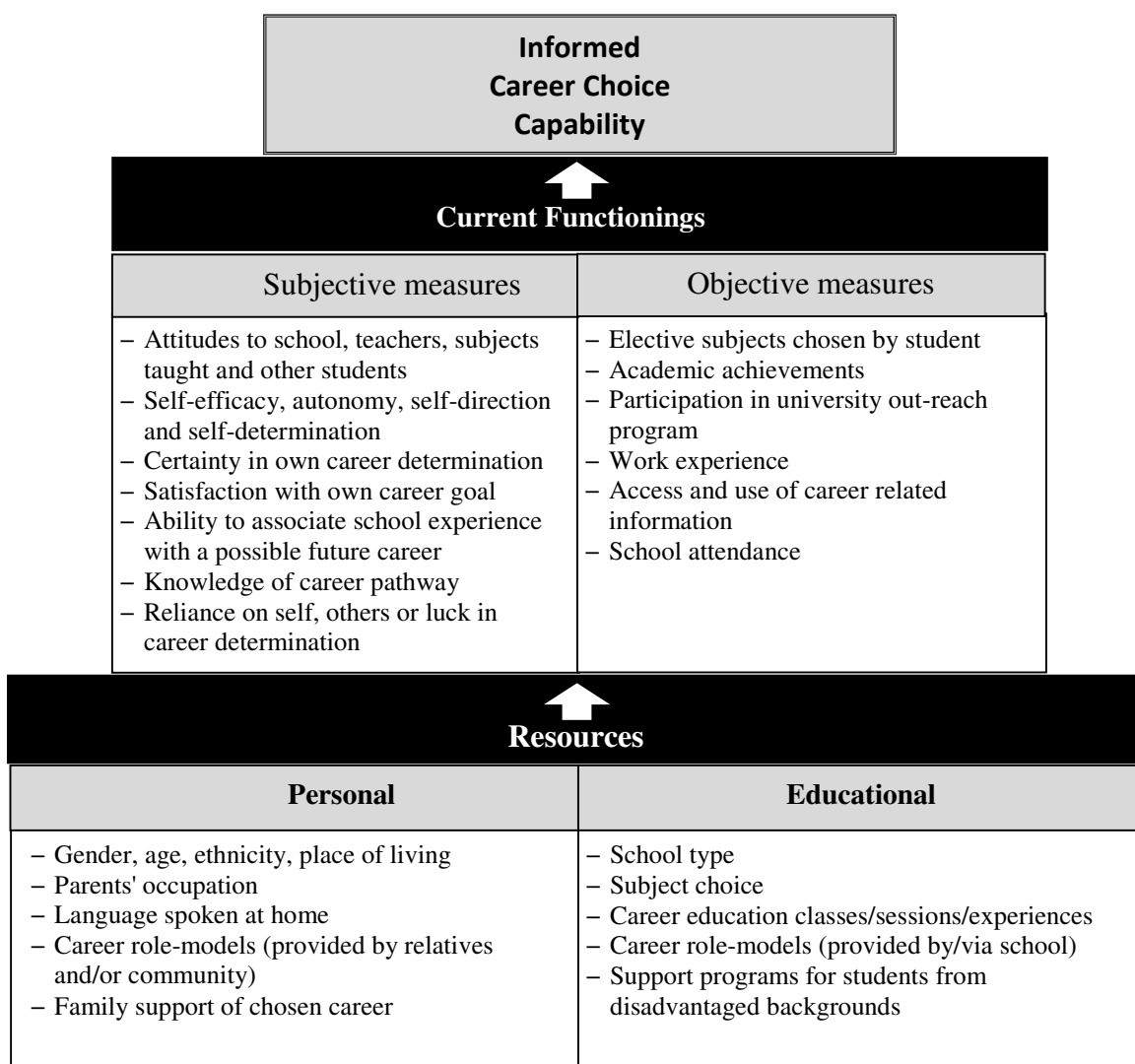
beneficial for the ‘educational outcomes of marginalised students’ (p. 79). Such a viewpoint demands a different theoretical and methodological approach; one that is capable of examining *both* structure and agency. In our view, Amartya Sen’s central concept – *that human agency relies on the development of individual functionings that are contingent on formative social processes (like education)* – aligns well with questions about the purpose, content and delivery of education and educational research. However, given that schools can serve to reproduce existing social relations and that education does not necessarily enhance capability, educational researchers must develop conceptual tools that more readily lend themselves to the study of educational problems. In the following section, we outline a conceptual framework for an empirical study of the individual *and* educational factors potentially influencing secondary school career choice capability.

### **Measuring career choice capability**

As discussed earlier, in order to analyse the capability or freedom of high school students to make an informed career choice, one should reject the idea of simply counting the number of career options available for students. This is because the same number of career options does not necessarily lead to equality of opportunity. The same logic can be applied to counting the number of years of schooling, as different educational experiences can lead to remarkably different outcomes and level of advantage. Instead, we suggest looking at what Sen (Sen, 2005, p. 5) calls ‘observable data’ with respect to the functionings of students in relation to the resources available to them. Thus, in order for educational policy makers and practitioners to more fully understand differences in students’ capabilities to form and execute their career preferences, a wide range of student related data outlining current functionings, as well as personal and educational resources, should be analysed. From this perspective, the critical questions for researchers then become: (1) who is and is not yet ready to envision and enact their desired future career choice, (2) what characterises those who cannot, (3) what resources, if any, have they lacked; and (4) what might that tell us about their formative

educational years and the potential for change to the academic school curriculum and career advisory practice?

To assist us in thinking through this process, in Figure 1 below, we examine students' relative freedom to achieve informed career choice capability by measuring differences in the resources that have been made available to them and their functionings to date. At the bottom of the pyramid are 'resources' which provide a foundation for each individual's development. These can be divided into two evaluative spaces, including *personal* (such as students' cultural background and family support) and *educational* (such as type of educational system and subject availability). In cases where personal resources disadvantage students in some way, additional support resources provided by educational systems (for example, participation in partnership activities and out-reach programs sponsored by the Government through HEPPP) can be analysed for their availability and effectiveness.



**Figure 1: The Constitutive Elements of Informed Career Choice Capability.**

Students' functionings (things that people are actually able to be and do) are at the next level and can include objective and subjective measures. Objectively measurable functionings in the space of career choice capability include (but are not limited to) visits to university open days and investigation about different professions and associated lifestyles. Subjectively measurable functionings include psychographic characteristics such as self-efficacy, autonomy, self-direction and self-determination (Alkire, 2005). Functionings depend on educational resources, as well as personal characteristics and circumstances. Different resources provide the foundation for different functionings, and only certain kinds of resources will lead to functionings that will contribute to informed career choice capability.

Alternatively, the lack or difference in some resources and functionings may lead young people to career indecisiveness and unemployment (Nolan & Anyon, 2004).

As this framework makes clear, the ‘failure’ of some young people to envision a future and make deliberative career decisions is not simply an individual problem. Policies that aim to address youth unemployment by raising aspirations and career knowledge of young people through the provision of career pathways information may not therefore deal with the core issues affecting career choice capability. By placing equal emphasis on the interaction between individual students and the nature and quality of the education they receive, and by seeking to measure career in/decisions in relation to both these elements, this framework succeeds in (re)directing attention to the nature and quality of the education and advice provided to young people, as opposed to counting retrospectively the achievements or failures of individuals.

The recognition that neither students *nor* educational resources are equal is a fundamental yet often missed step in the Capability equation. However, deep understanding of the reasons for persistent inequality in educational experiences and outcomes linked to career choices will not be possible until the different threads of educational knowledge are brought together in multi-disciplinary investigations capable of probing student career interest, knowledge and aptitude, alongside an examination of what curricular offerings and career advice students have received. In other words, a comprehensive study of student career choices must ask four questions: (i) What future career choices are secondary school students proposing to make and what factors of influence correspond to differences in students’ responses? (ii) What choices, given the educational experiences and advice these students have received, are possible? (iii) What characterises the capability sets of agentive students, and (iv) what limits and constrains those who struggle to reach their freedom to envision and achieve lives they have reason to value?

## **Conclusion**

While the Australian economy has been hailed as a miracle in the post-GFC era, not all citizens equally benefit from it. Structural shifts in the economy over time have significantly reduced job availability in manufacturing and traditional low-skill labour markets and this has disproportionately affected youth labour markets. As low-attainers and early school leavers from disadvantaged backgrounds are particularly vulnerable to joining the ranks of the long-term unemployed, state and federal governments have adopted a series of policy reforms designed to raise aspirations, disseminate career and job-finding information, and to keep students 'learning or earning'. Recent government strategies suggest however that the number of years of schooling appear more highly weighted than the quality of educational experiences, while the dissemination of career related information is perceived to adequately provide for students' career determination. Those individuals who do not exercise their 'choice' through the existing options are at risk of being positioned as if career indecisiveness is their own problem separated from the society in which they live.

To date however, researchers in education have not investigated agentic career choice as a formative process, which could help to provide meaningful recommendations for targeted intervention in the late primary and early secondary school years, or the development of specific measures that could help address this problem through changes in career advisory practice. In this paper, we argue that Sen's theory of human capability can assist in the investigation of differences in secondary school student career choice capability. Such an enquiry has the potential to identify what is lacking when students are unable to envision or secure viable and meaningful futures, not just in terms of individual attitudes, backgrounds and abilities, but also in terms of the educational resources and experiences that these students have received.

## **SECTION ONE: SUMMARY**

This background section, which includes a review of the research literature (Chapter Two) and the conceptual framework (Chapter Three), outlined multidisciplinary phenomena of career decision-making studies, distinguished different schools of thought, and positioned this research project within the field. Chapter Two helped to identify the state of the research associated with youth career determination and where the research was lacking. Having to deal with multiple researchers, philosophers and investigational approaches, it was helpful to obtain a historical perspective on the concept of ‘career’ as it is understood in Australia. It was also important to map various groups of researchers based on their similarities and differences. Chapter Three provided critical analysis of the current practices in treatment of young people experiencing difficulties in their career determination. It also proposed an alternative perspective to that held by current research and government practices. The proposed approach shifted the positioning of career uncertain young people from ‘unwilling to form their career preferences’ to ‘unable to do so’. As a consequence, in order to evaluate a person’s capability to make career choices, the conceptual framework outlined in Chapter 3 (Paper One) recommended investigating (i) the personal and educational resources available to individuals and (ii) their ability to convert those resources into achievements. Due to the novelty and complexity of this conceptual framework, Chapter Three suggested a further investigation of the career choice capability through a high quality mixed-methods research design study. The methodological considerations taken into account, as well as the research design of the current study, is further described in the Section Two ‘Methodology’.





## SECTION TWO: METHODOLOGY

Section Two – which consists of Chapter Four, ‘Methodology’, and Chapter Five, ‘Focus Groups Informing Survey Design’ – provides a rationale, detailed plan of action and explanations of some choices made in the course of development and execution of the research design of the current study. As this thesis is written in a *Thesis by Publication* format, the methodology is described across several chapters (Chapter Five – Eight), written in journal article format. Thus, the aim of Chapter Four is to outline the methodological considerations that were taken into account in the process of research design and to provide a brief outline of the main phases of the current mixed-method investigation. It provides a discussion regarding the effect of the purpose of the current project on the actual choice of research design, examines currently utilised research methods in the area of career choice investigations and describes the mix of research methods used in this study. Chapter Five, represented by Paper Two, presents the results of the first phase of this mixed-method research project. It provides justification for the exploratory qualitative phase and the use of focus groups, which were conducted in order to inform development of the main instrument of the second phase of the project, a cross-sectional survey. It also describes how analysis of the focus group data informed the final design of the survey questionnaire.

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## **Chapter Four: Methodology**

### **Quantity or quality? Methodological considerations in measuring human agency**

#### **Introduction**

As this thesis is presented in the Thesis by Publication format, many chapters are represented by published journal articles, each of which contains a detailed methods section of its own. This chapter describes the methodological considerations that affected the method choices in this study and is complemented by more comprehensive discussion of the utilised methods in each of the corresponding journal articles. The first section of this chapter, describes how the purpose of the present investigation influenced methodological choices, considers currently used research methods in career education and development studies, and discusses the positives and negatives of the chosen mixed-methods research design. This section is followed by a brief description of the project methodology and justification of the selected population. The chapter then outlines the participants, procedures, and approaches to data collection and analysis taken in each of the two phases in this sequential phase mixed-methods study.

#### **Methodological considerations**

##### ***Purpose of this study***

The overarching goal of the current research project was to investigate the concept of agentive career choice with young people and to better understand why some high school students experience career uncertainty. More specifically, the research examines the contributions that personal characteristics and educational experiences make to career (un)certainty. Knowing what contributes to career certainty and what might have a negative effect on career determination of young people can be helpful to students, career guidance and counselling practitioners, as well as educational policymakers.

Despite the wealth of research in the area of career development, there seems to be a lack of communication flow, not only between researchers themselves, but also between those who investigate the closely related issues of career aspirations and those who create policies aimed at assisting youth in their post-school transitions. Chapter Two of this thesis (Literature Review) discussed what is currently known about the factors affecting career decision-making and highlighted the multidisciplinary nature of career development studies, where different schools of thought tend to develop their own theories and investigations. Chapter Three pointed to the tendency of current education policymakers to apply various assumptions in the development of policy. Perhaps this is why government initiatives, which were created to assist youths' career aspiration formation and post-school transitions, have not been as successful as hoped.

Drawing on Amartya Sen's (1995) capability approach, the current study investigated the personal backgrounds and educational experiences of high school students in order to identify differences between students in terms of their career choice capability. As human capability is context specific (i.e., in different contexts individuals might require varying amounts of resources and experiences to have equal opportunities in making career choices), it was important in this study to select a context in which the subjects of investigation would share some similarities. As a result, this investigation was conducted with high school students in the Australian state of New South Wales.

The problem and research questions of the study usually provide a good indication of whether quantitative or qualitative research method(s) are required. For the current study both methodological choices were pertinent. The main research question of this study was concerned with the differences between various groups of students, which meant that quantitative research was appropriate. The need for better contextualisation and exploration of the students' needs and challenges associated with career decision-making, however, indicated that qualitative research could also be appropriate. Prior to discussing the chosen methods for this study and

associated positives and negatives, the following section will provide background information in relation to the research methods that have been used in career development studies to date.

### ***Research methods used in career development studies***

Research in the area of career development is conducted across various fields and in some cases is referred to as interdisciplinary. In the United States, vocational psychology tends to dominate investigations associated with career decision-making (W. B. Walsh & Savickas, 2005), whereas in other parts of the world, career and vocational guidance, counselling and development are more dominant (Van Esbroeck & Athanasou, 2008). Savickas and Baker (2005) argue that the field of vocational psychology is now specialised with various researchers following multiple theories and philosophical positions. Moreover, those who are preoccupied with career decision-making investigations seem to belong to various research camps using different methodological approaches (Savickas & Baker, 2005).

Overall, quantitative methods appear to be the most recognised and accepted with other approaches being less-utilised. McMahon and Patton (2002) note that little attention has been given to qualitative methods in career assessment literature with most of the studies focusing on quantitative approaches. However, Savickas (2001) argues that for better contextualisation and understanding of the complexities, researchers need to have a greater balance between qualitative and quantitative methods, as well as exploratory and confirmatory types of research. For these purposes, Van Esbroeck and Athanasou (2008) suggest using a pluralistic or mixed-methods approach.

In Australia, while there are a number of independent studies, the largest volume of research related to the area of career determination is conducted by researchers using data from the Longitudinal Survey of Australian Youth (LSAY). Due to LSAY's original design and nature, the publications based on this survey, produced by the Australian Council for

Educational Research (ACER) from 1995 to 2007 and by the National Centre for Vocational Education Research (NCVER) from the 1 July 2007 onwards, are mostly quantitative.

Apart from ACER and NCVER, a large number of academic publications in the field of career studies in Australia can be found in the *Australian Journal of Career Development*. According to Cameron's (2010) systematic review of the publications in this journal from 2004 to 2009, most of them are theoretical or quantitative (35.4% and 32.3% respectively), with mixed-methods articles accounting for only 4%. Further, Cameron (2010) argues that mixed-methods research is underutilised in the field of career development in comparison to the closely related areas of school psychology and vocational education and training (VET).

This literature (in addition to the purposes of this research project) informed the research design underpinning this study: a mixed-methods approach utilising both qualitative and quantitative techniques of data collection and analysis (Creswell, 2005; Mertens, 2005). The existing literature associated with the topic of investigation provided rich material in relation to general factors affecting career decision-making and these were incorporated into a draft instrument to be used in a large scale quantitative survey. It was decided, however, to conduct exploratory focus groups prior to finalising the survey questionnaire in order to pre-test some of the hypotheses developed and to better contextualise the survey questions. The following section outlines the strengths and weaknesses of the mixed-methods approach.

### ***Mixed-methods research***

Mixed-methods research is appealing to a growing number of researchers, especially when the complexity of the research problem makes it difficult, if not impossible, to investigate it sufficiently using only one method (Sale, Lohfeld, & Brazil, 2002). Ivankova and Creswell (2009) argue that a combination of qualitative and quantitative research gains more complete knowledge and better understanding of the problem. A combination of methods can also produce stronger evidence for more meaningful and convincing conclusions through

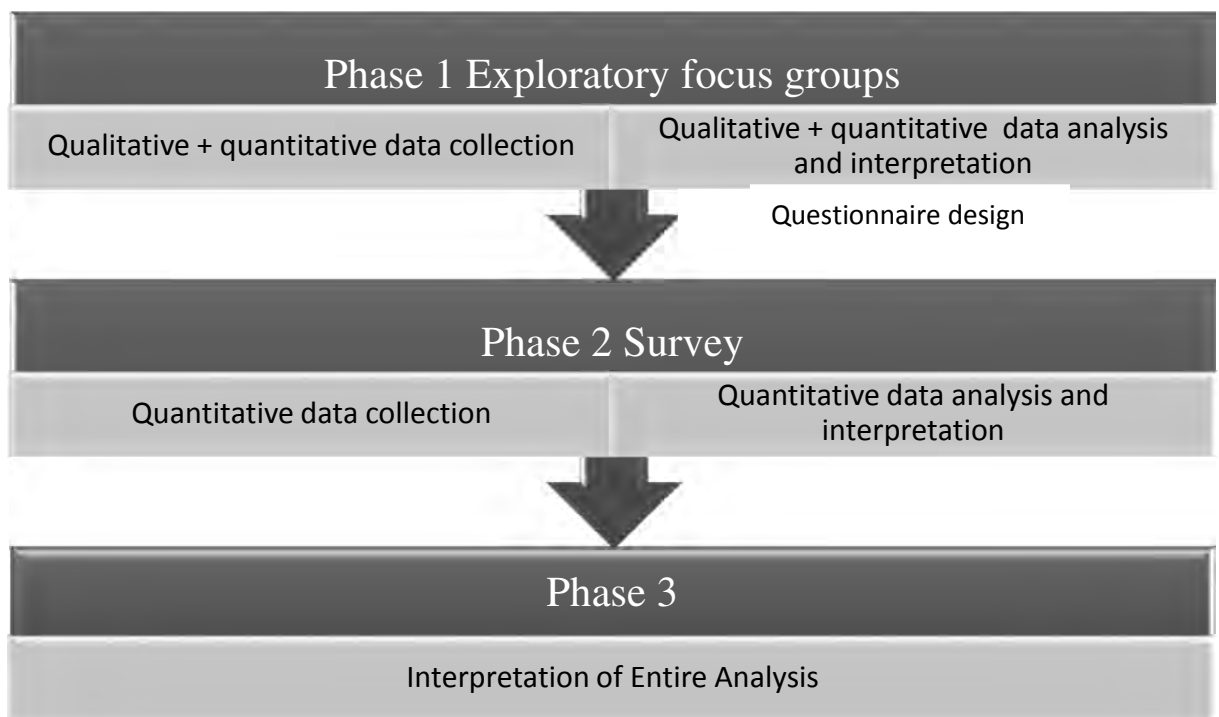
confirmation of the findings (Ritter, 2012). Johnson and Onwuegbuzie (2004) suggest that certain combinations of methods can have unique advantages. For instance, qualitative research design used at the beginning of a study can inform or drastically improve design of the subsequent quantitative part. Thus, not only can researchers obtain multiple perspectives on the same phenomena, but in some cases it is possible to first generate a new hypothesis or theory in a qualitative phase and then test it quantitatively (Creswell & Plano Clark, 2011).

Some academics criticise mixed-methods research and caution against its inappropriate use. This is due to a perception that the investigator has to become expert in both qualitative and quantitative methods (Johnson & Onwuegbuzie, 2004). For example, Morse (2003) warns that researchers might not achieve thoroughness and rigour in each process of data collection and analysis when combining methods under the same study. Conducting research with multiple methods also leads to greater time demands and more complex project management (Creswell & Plano Clark, 2011; Tashakkori & Teddlie, 2003), which Johnson and Onwuegbuzie (2004) believe is especially difficult for an individual researcher. Some mixed-methods research projects might become so complex that they require a whole team of investigators to manage the demands of implementation (Johnson & Onwuegbuzie, 2004). After careful consideration of the purposes of this study, recommendations from the research literature, as well as my knowledge and prior experience, a mixed-method research design was considered to be the most appropriate approach for the current investigation.

## **Methodology**

This study followed a sequential phase mixed-methods research design utilising both qualitative and quantitative data collection methods and techniques of analysis (Creswell, 2003; Tashakkori & Teddlie, 2003). Following Creswell's (2003) typology, Figure 2 illustrates the phases of the investigation: first, an exploratory qualitative phase, followed by a large scale quantitative survey, followed by an integrative analysis. As the study began with an exploratory phase, priority was given to small-scale data collection, analysis and interpretation, using focus

group methodology. The focus groups provided both qualitative and quantitative data, however, the data was mostly qualitative in nature. This first phase had to be fully completed before moving to the next part of the investigation, as the results helped to inform the design of the survey instrument to be used in the second phase of the study. The survey involved quantitative data collection, analysis and interpretation (some of the questions had open-ended responses but the answers were coded for quantitative analysis). The final third phase of the study brought together all the research findings in order to interpret their meanings and provide recommendations for practitioners, theorists and policy-makers.



***Figure 2: Sequential exploratory mixed-methods research design.***

### ***Population of the study***

The population of interest for this investigation was selected in response to a number of factors. These factors include the conceptual framework of the study and its suggestion for contextualisation of the research project, the cognitive development of young people, and

specificity of the educational system(s) in Australia. Some of the limitations faced were associated with the nature of conducting a doctoral study with the restricted time frame, budget and number of people working on the project.

Capabilities in Sen's theory of human development are context-specific. This means that it is hard to compare the resources and functionings required to ensure equality in the capabilities of persons living in different contexts. For instance, using one of Smith's examples of freedom being able 'to appear in public without shame,' Sen argues that the resources required for this freedom can be different in various countries due to local climate, economic development, culture and norms (as cited in Sen, 1995). As such, while in some places it might be appropriate to be in public wearing shorts and a singlet (or vest), it can be very inappropriate and even shameful in another context. Thus, when selecting a population for this research, in order to be able to compare capabilities of different student groups, it was beneficial to make sure that they were situated within the same or similar context (at least to some extent).

Conducting a research project with a national sample of Australian school students would have allowed for the observance of the differences between states, however, such scope would have been beyond the limits of a PhD study. Thus, it was decided to focus on a single state of Australia, NSW. The target group of the investigation was high school students attending Years 9 to 12. The following paragraphs discuss the reasons for focusing on high school students rather than primary, and particularly on Years 9 to 12, as well as factors which influenced the research to be conducted in the state of NSW.

While it would be valuable to examine the career choice capabilities of both primary and secondary school students, I decided to focus only on students in the latter group due to (i) the different developmental stages of young people, (ii) the curriculum structure in Australian schools, (iii) the stability of career decision formation in different age groups, and (iv) the focus of policies targeting youth aspirations and post-school transitions in the later secondary school years.



Firstly, the nature of the psychological development of children requires different approaches in conducting research with different age groups (Borgers, De Leeuw, & Hox, 2000), which means researchers need to take into consideration different attention spans, vocabulary, and motivational factors affecting participants. These differences mean that conducting research across both primary and secondary schools would most likely require the creation of multiple versions of the data collection instruments for each age group. The development of multiple versions of the instrument would have expanded the research project in terms of time and human resources management, which was beyond the PhD project scope.

Secondly, high school students in Years 9 to 12 were selected as the population of this study due to Australian curriculum specificity. By Year 9, students have had the experience of selecting elective subject options, which should have encouraged them to think about their future careers. In addition, most of the high schools in NSW provide career education sessions and work experience in Year 10. This is likely to further provoke students to think about their future careers.

Thirdly, research suggests that in late adolescence individuals tend to form relatively stable career expectations which have a high probability of relation to the future career outcomes of those persons (Wilson, 2011). While many children may seriously think about their future careers in the earlier years of schooling (Gore, Holmes, Smith, Southgate, & Albright, 2015) and it is possible that some experience career preference formation difficulties at that time, investigation of younger children's career choice capabilities was also beyond the scope of the current study.

Lastly, recent Australian government policies targeting youth with the intent to raise their aspirations and improve post-school transitions are mostly focused on students in the later years of schooling. High school students, for example, are more likely to be affected by university outreach programs (although not exclusively). In addition, young people who may have left school early prior to the introduction of these policies, are now required to be either

in work or attending some form of education or training until they are 17 years old (Reid & Young, 2012). This presented the opportunity to examine what effects these kinds of initiatives have on the career choice capability of young people.

There are two main reasons for focusing on students in only one Australian state. The first reason related to the economic conditions at the time the study commenced. When this doctoral project began, NSW had a very specific economic situation in comparison to the rest of Australia, which made the career choices of young people especially challenging. NSW is the most populous state of Australia with an estimated resident population of 7.21 million people as of June 2011 (Australian Bureau of Statistics, 2012b) and 3.6 million in the workforce (Australian Bureau of Statistics, 2012a) contributing about 32 percent of national Gross Domestic Product (NSW Department of Trade & Investment Regional Infrastructure & Services, 2012). As explained in the publications following this section, during much of the early 2000s, NSW experienced negative consequences due to a 'two-speed economy' (Garton, 2008), which affected the availability of jobs, particularly in the low skilled labour market.

This two-speed economy occurred because mining states like Western Australia and Queensland were benefiting from the mineral resources boom and high incomes from exports, whilst states that rely more on services and manufacturing (e.g., Victoria and New South Wales) were struggling because of the strong currency and high cost of labour (Australia's minimum wage was \$16.87 AUD/ hour in November, 2014) (Australian Government Fair Work Ombudsman, 2014). This led to a situation in which businesses tended to outsource jobs to cheaper labour overseas whenever it was practically possible, leaving the NSW jobs market with a shortage of low-skill and low-experience positions. This, in turn, resulted in very limited job opportunities for young people seeking entry-level positions.

The second reason that NSW was selected to be the focus of this investigation was that each state or territory of Australia has its own educational system. There are six states and two territories in Australia. Similar to the United States, there is a Federal government

with jurisdiction over national infrastructure, fiscal and foreign policy, defence, pensions and social welfare, and most facets of higher education. School education, however, is the responsibility of each individual state or territory. This means that educational systems and their curriculums are different across the states. Thus, the content and timing of career education, guidance and counselling can vary across states and cannot be easily compared (Patton, 2005).

A number of steps have been undertaken to unite state educational systems or at least the standards that they follow, although not all educational areas are equally affected. In particular, the adoption of the Australian Curriculum (AC) by all states and territories of Australia aims to achieve greater consistency between systems. NSW, being one of the last states to transition to the AC, had not done so by the time of the current study. It is worth mentioning, however, that career education and guidance are not included in the AC and considerable variations in career advisory practice exist not only between the states but also between individual schools (Patton, 2005).

The NSW education system comprises three main sectors, including Government, Catholic (systemic) and Independent schools, each of which has various budget and resource allocation structures and approaches to career guidance. In 2012, the year of data collection, 65.69% of all school students in Australia were enrolled in Government schools, 21.73% studied at Catholic schools and 12.58% attended Independent schools (Australian Bureau of Statistics, 2015). The current study attempted to sample students from all three sectors, however, it was limited to those schools that gave consent to participate in the research. After lengthy consideration, both Catholic (systemic) dioceses that were invited to participate did not give permission for their schools to take part in this research project. To compensate for this loss, two Independent Catholic schools were included in the study, although of course they cannot be counted as substitutes as Catholic systemic and Catholic Independent schools differ in terms of their fee structures and their student cohorts.

### ***Phase 1 Exploratory focus groups (data collection, participants, procedures, data analysis)***

In the first phase of the current study, data was collected through five focus groups conducted with high school students attending Year 10 at five schools representing different levels of socio-educational advantage and located in different geographical locations in NSW. Participating schools were recruited from among three types of co-educational schools including government non-selective, government selective and Independent. Following ethics approval by Macquarie University and upon receiving approval to conduct research within government schools from the NSW Department of Education and Communities, four schools of each type were contacted for participation. Principal approval was received from five of these schools. The sample included government and non-government, selective and non-selective, with these schools being located in metropolitan as well as in outer metropolitan areas.

The topics for discussion in the focus group interviews (see Appendix 8) were based on the review of the career development, youth aspirations and post-school transitions literature. They were also influenced by Martha Nussbaum's work, 'Central human functional capabilities' list (Nussbaum, 2001, p. 54, see Appendix 7), which builds on Sen's theory of human capability in an attempt to operationalise the theory. The aim of the focus group discussions was not, however, to cover all ten capabilities presented in Nussbaum's (2001) list. Instead, the aim was to explore the presence and variety of some of the capabilities in students' lives, and their relevance to participants' career decision making.

As outlined in Chapter Five (Paper Two), qualitative data from the focus group interviews were transcribed verbatim and analysed using Nvivo 9 (QSR International, 2015) software.

The findings from the focus groups helped to obtain a better understanding of the context in which NSW high school students are making their career choices. Qualitative results allowed for an exploration of the career intentions of young people and the influences upon

them, which later provided valuable input into the design of the survey questionnaire for the quantitative part of the current investigation. This process is outlined in Chapter Five, which features the second journal article (Paper Two) in this thesis.

### ***Phase 2 Survey (sample, data collection, procedures, data analysis)***

The focus groups' data from the first phase of the study helped to improve the survey questionnaire that was developed for the second and main phase of the research project. In this second phase, the electronic survey was administered to 706 high school students attending Years 9 to 12 in twelve schools across NSW. The aim of the second phase was to identify the differences between those high school students who have some idea of what they would like to do after school completion and those who had not yet formed a preference. As per the conceptual framework underpinning this study, the particular points of interest were differences in personal characteristics and the educational experiences of the participants.

Multiple advantages of online surveys have made this data collection method one of the fastest growing in popularity and use in recent years. Data collection via an electronic questionnaire is more efficient, as well as less time-consuming and costly than mailed pen and paper questionnaires (B. Smith, Smith, Gray, & Ryan, 2007). The collected data also tends to be more accurate due to the elimination of scanning and data entry errors (Wolford et al., 2008), built-in protections against potential loss of data (Ilieva, Baron, & Healey, 2002), and simplified ways of transferring data from collection forms to a database for analysis (Carbonaro & Bainbridge, 2000). Data collected through online surveys is immediately available for analysis (Pealer, Weiler, Pigg, Miller, & Dorman, 2001). Without an administrator directly enforcing questionnaire completion, participation in online surveys can be considered as truly voluntary (Lefever, Dal, & Matthíasdóttir, 2007) and can provide more authentic responses as participants are not biased by the interviewer's personality (Dillman & Smyth, 2007). Online surveys also provide research participants with more convenience due to the ease of submission of their completed questionnaires (Lefever et al., 2007) at a time and

place convenient to them (Heiervang & Goodman, 2011). Finally, researchers have more flexibility using this data collection method because of the ease of modifications and styling, as well as the ability to incorporate skip/display logic for questions which need to be answered by some participants and not by others (Wolford et al., 2008).

While providing multiple benefits to researchers, data collection using online surveys has also been acknowledged for its limitations. Two of the main problems that have been highlighted are the high rates of incompleteness and participation bias (Heiervang & Goodman, 2011). The first issue of a high dropout rate is often due to the complexity of the terminology used in the questionnaire and the absence of an interviewer being able to assist in interpretation or to provide encouragement for participation (Heiervang & Goodman, 2011). The second commonly acknowledged problem of online surveys is participation bias, with a tendency towards over-representation of more privileged groups with higher levels of education and language proficiency (Pérez, Ezpeleta, & Domenech, 2007). In addition, research conducted online relies on Internet access on the side of a client, which is not always possible (Burns & Bush, 2010).

Various researchers have recommended strategies to address these limitations to improve the quality of the collected data. In order to overcome potentially high rates of questionnaire incompleteness, Heiervang and Goodman (2011) recommend aiming for a larger number of participants than what might be considered needed, whilst Mercer, Caporaso, Cantor and Townsend (2015) suggest providing an incentive that would be valuable to the target audience. As for participation bias, Wolke et al. (2009) suggest that if the research project is mainly concerned with patterns of associations (as per the current study), mathematical modelling and empirical evidence show relative resistance of associations to volunteer participation bias. In order to improve overall participation, Carbonaro and Bainbridge (2000) recommend, firstly, to ensure that the target audience of the study can easily access the survey, and, secondly, that researchers design the online questionnaire so

that it requires minimal computer skills, is easy to complete, and does not need the participant to have the newest software or technologies. Lastly, Lefever, Dal and Matthiasdottir (2007) strongly suggest incorporating security systems which ensure the participants' anonymity and the confidentiality of their responses.

All of these recommendations were successfully implemented in the current study. While the number of survey participants derived from Krejcie and Morgan (1970) tables was 384, the aim was to oversample by 30 percent and to achieve at least 500 completions, as recommended by Sikora and Saha (2009) due to the high nonresponse in prior studies of youth aspirations. The participants of the survey were provided with an incentive that involved being entered in a draw for four prizes: one iPod touch and three iPod shuffles. The online questionnaire was designed in Qualtrics (2015) software and distributed via the Qualtrics online platform, which made the survey easy to access, complete and submit. All potential participants had computer and Internet access at their schools. Although no sensitive questions were deliberately asked, the data security mechanisms were incorporated in the survey design and data collection to ensure anonymity and confidentiality of participating students, their families and schools.

The final version of the questionnaire was reviewed by my principal and associate supervisors and then piloted with colleagues and friends who encouraged their children to attempt the survey and comment if there were any difficulties in comprehension of the questions or any limitations in providing answers. All of these questionnaire completions were supervised by parents and trial responses were deleted at the end of the pilot.

In order to recruit participants for the survey, initially, the amendments to the previous ethics approval application forms were submitted and approved by Macquarie University and the Department of Education and Communities. Two applications to conduct research at the schools of two Catholic dioceses were submitted. However, both applications were declined. Following this, principals of 30 government and Independent schools were contacted in order

to obtain consent for their students' participation in the survey. Principals of 12 schools gave their permission to conduct research in their schools and consented to the publication of information about the study with links to the survey in school newsletters (in many cases it was distributed to students' families by email by the schools). The description of the study included passive consent for parents and guardians encouraging them to contact the researchers in case of any enquiries or if wishing to withdraw their child from the research once it had commenced.

The collected survey data was predominantly quantitative apart from a small number of open-ended responses. Quantitative data was analysed in SPSS (IBM, 2015) software using descriptive analysis and inferential tests, including chi squares of independence and independent sample *t*-tests. When the results of chi squares were significant, they were followed up by *z*-tests with Bonferroni adjustment for multiple comparison in order to control for false discovery rate at  $\alpha = .05$  (Hochberg, 1988). Measures of effect sizes for *t*-tests and chi square tests were given by Cohen's *d* and Cramér's *V* respectively. In addition, odds ratios were provided for significant chi square test results. Qualitative responses were coded categorically in order to be analysed quantitatively, however, some of these variables were also explored thematically (Creswell, 2009).

Further details of the survey research design, description of the used constructs, participants, data collection, analysis and interpretation of the results can be found in Chapters Six, Seven and Eight represented by Papers Three, Four and Five.

### ***Phase 3 Interpretation of entire analysis***

The last phase of the study was designed to bring the various threads of the investigation together. This research project started with a philosophical discussion around students' capability to make informed and agentic career choices in NSW, Australia. It then operationalised concepts from Sen's (1995) theory of human capability to empirically



investigate high school students' career choice capability. The final phase involved an integrative analysis that aimed to relate the empirical findings back to the original research questions, reflect on current practices, and provide implications for researchers, practicing career advisers and counsellors, school administrators and educational policy-makers.

### **Summary**

This chapter has provided an outline of the methodological considerations and justification of the chosen mixed-methods research approach in the current investigation. As this Thesis by Publication includes several journal articles in the place of traditional thesis chapters, the discussion of methods to some extent is repeated. Thus, this chapter focused on the research design, reviewing the purpose of the study affecting my methodological choices, outlining the most popular research methods used by other researchers in the area of career studies, and detailing the advantages and disadvantages of the chosen mixed-methods research. The chapter also provided a brief discussion of the sequence of phases used in the current project including exploratory focus groups and an online survey. Further details of the methods and data collection and analysis which were used in the current study can be found in Chapters Five, Six, Seven and Eight (Papers Two, Three, Four and Five).

# **Chapter Five: Focus Groups informing Survey design –**

## **Paper Two**

### **Citation:**

Galliot, N., & Graham, L. (under review). Focusing on what counts: using exploratory focus groups to enhance the development of an electronic survey in a mixed methods research design. *International Journal of Research and Method in Education*.

As discussed in the previous Chapter, this doctoral study uses a sequential exploratory mixed-methods research design (Ivankova, Creswell, & Stick, 2006) in order to investigate the career choice capability of high school students. The following Chapter (Paper Two) extends the ‘Methodology’ section by describing the first phase of the project. It provides insight into the process of conducting exploratory focus groups and the way in which these guided the development of the instrument of the quantitative survey in the next phase of the study.

# **Focusing on what counts: Using exploratory focus groups to enhance the development of an electronic survey in a mixed-methods research design**

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## **Abstract**

This paper illustrates the use of exploratory focus groups to inform the development of a survey instrument in a sequential phase mixed-methods study investigating differences in secondary students' career choice capability. Five focus groups were conducted with 23 Year 10 students in the state of New South Wales (NSW), Australia. Analysis of the focus group data helped inform the design of the instrument for the second phase of the research project: a large-scale cross-sectional survey. In this paper, we discuss the benefits of using focus groups as an initial exploratory phase in a sequential phase mixed-method design. The paper will be of interest to researchers considering the use of exploratory qualitative methods to enhance the quantitative phase in a mixed-methods study.

**Key Words:** sequential mixed-methods, focus groups, survey development, adolescents, agency.

## **Introduction**

Mixed-methods research provides a powerful array of options to investigate complex problems and has gained popularity in social sciences over last 30-40 years (Hanson, Creswell,

Clark, Petska & Creswell, 2005). The variety of ways to mix qualitative and quantitative research methods varies from more basic exploratory sequential, explanatory sequential and convergent models to more advanced frameworks such as multistage, intervention, case study and participatory approaches (Fetters, Curry & Creswell, 2013). In recent years, a growing number of researchers have highlighted the benefits of combining qualitative and quantitative approaches, arguing that enriched datasets enable a broader and more comprehensive perspective, than single data forms (Brewer & Hunter, 1989; Tashakkori & Teddlie, 1998).

Despite these advances, researchers in the behavioural sciences still favour single approach (quantitative or qualitative) research designs (Waszak & Sines, 2003), leaving mixed-methods relatively underutilised. Hanson et al. (2005) argue that this limitation might be due to historical conventions, difficulties in learning and applying both methods simultaneously, and lack of attention to mixed-methods in students' postgraduate education. Meanwhile, using hybrid research methods can significantly improve research outcomes. Investigators, for example, can first obtain deeper and more contextual understanding of the problem through an initial qualitative phase, for example, which they can then draw on to design or augment subsequent (perhaps quantitative) phases of the inquiry (Greene & Caracellie, 1997).

In regard to the creation of quantitative measurement instruments, which are often used for participants' self-reporting, Saris and Gallhofer (2007) argue that 'designing a survey, involves many more decisions than most researchers realise' (p. i). This is particularly the case, if the research involves surveying a diverse population comprising members at different stages of cognitive growth and overall development, levels of literacy, and information comprehension (Scott, 1997). As the quality of survey data collection is dependent on the quality of the survey instrument (especially when attempting to probe beyond previous literature findings), it is important to ensure that the questionnaire is comprehensive, fit-for-purpose, avoids flippancy or ambiguity, boredom, or difficulties in comprehension (Borgers, De Leeuw, & Hox, 2000). Also, researchers should not underestimate the role of survey user-friendliness, important

elements of which include visual appeal, brevity, clarity and relevance to the target group (Roberts, 2007). In combination, these elements can affect participation, completion and representation of all participant types.

A common starting point for survey construction is a comprehensive literature review. Deciding which and how many questions to ask in a final version of the survey questionnaire, however, is of vital importance. So too is determining the most important questions to ask and minimising the risk of making mistakes or missing important new developments by relying on the assumptions and findings of previous researchers. To assist in tailoring survey methodology to the target participant group, experienced researchers recommend the conduct of in-depth group discussions prior to wording and constructing a survey questionnaire (Borgers et al., 2000; Scott, 1997).

Focus groups are considered to be a more appropriate approach for this purpose, in comparison to one-on-one interviews, especially when conducting research with potentially sensitive or vulnerable groups such as children (Mauthner, 1997). Such participants may feel more willing to share their views and experiences when surrounded by others similar to them (D. L. Morgan, 1992, 1996). A group environment can be less invasive or threatening (Mauthner, 1997), especially when the investigator is not known to participants prior to the research project occurring. In addition, focus groups can have a therapeutic effect on participants (Jones & Neil-Urban, 2003). Discussants are able to not only answer the questions of the moderator, but also comment on and question other research subjects (D. L. Morgan, 1996; O'Brien, 1993). Thus, they can reflect on their own experiences, provide explanations to each other and get a better self-understanding of the topic (Burman, Batchelor, & Brown, 2001).

There are, however, several challenges associated with this method, which must also be considered. Some group participants might be concerned about their privacy and confidentiality or can be generally shy and unwilling to express themselves in front of peers, especially in relation to sensitive or personal issues and emotions (Barbour, 2007). Webb and

Kevern (2001) warn that discussants may express comments that can upset some group members directly or indirectly. There is also potential for some imbalance in the power of participants and conformity pressures (Byers, Zeller, & Byers, 2002), which can lead to some group members not contributing enough of their own thoughts. For example, Mauthner (1997) found that boys tend to be louder and talk more than girls in mixed gender focus groups. In addition, participants might also be negatively affected by the unequal power relations between the researcher and themselves (Barbour, 2007).

The majority of the shortfalls linked to conducting focus groups can be overcome or limited through a number of commonly used practices. Researchers need to ensure that participants feel comfortable and safe while sharing their personal stories. This can be achieved through detailed communication about the objectives of the investigation, obtaining written consent, and providing the opportunity to ask questions about the project or to withdraw at any stage. In order to encourage participants' expressiveness, investigators can reassure members of the group that there are no 'correct' answers and all opinions are welcomed and respected. If appropriate, investigators might try to achieve a certain degree of reciprocity with focus group members by contributing some personal information (as recommended by Barbour, 2007). Focus groups can also include a pen and paper activity as a way of furthering participants' self-expression (Morgan, Gibbs, Maxwell & Britten (2002). In addition, St-Yves (2006) recommends keeping an open mind to all possible responses, establishing rapport with participants, using active listening techniques and maintaining a professional attitude.

Focus groups have been widely used as a qualitative data collection method in the behavioural and social sciences for more than 80 years (Doody, Slevin, & Taggart, 2013). They provide multiple advantages and benefits of qualitative inquiry, such as obtaining background information of the research problem, generating new hypotheses, ideas and concepts, and an opportunity to clarify participants' vocabulary in relation to the topic of investigation (Stewart, Shamdasani, & Rook, 2007). While the benefits of conducting exploratory focus groups prior

to the use of large scale surveys have been acknowledged by multiple scholars (Cameron, 2009), articles describing the use of focus group data to inform survey development are limited (O'Brien, 1993; Vogt, King, & King, 2004).

## **Background**

This paper draws on a doctoral research project investigating the ability of high school students to make an informed career choice (for details of the conceptual framework see Galliot & Graham, 2014). Although the theory of human capability has been exploited by academics in various fields of human sciences since the 1990s (Amartya Sen, 1992), it has not been applied to students' career decision-making. Operationalisation of the theory raises challenges, however, particularly when it comes to the domain of measurement and when the object of measurement is a subjective construct like human capability.

In recognition of these challenges, Sen (1992) recommends that researchers evaluate human capabilities by obtaining context specific data related to peoples' achievements and 'functionings' (or what that individual is and does) to date. According to Sen (1992), such data can provide a partial but significant perspective on a person's capabilities or their potential opportunities, from which an individual can make choices about how they might live their life. Given the centrality of work to life, the focus of measurement in this project was on personal and educational resources associated with the 'career certainty' of high school students (Galliot & Graham, 2015; Galliot, Graham & Sweller, 2015). More specifically, the research questions concerning this study were: which students experience difficulty making an informed career choice, and what personal and educational factors influence their career choice capability?

Conducting research with 14-18 year olds can be challenging, particularly when the study is focussing on something the participants have not yet done. There are vast differences in physical and psychological development in this age group (Scott, 1997), and various levels of sensitivity to the topic of career choice, as well as differences in the availability of career

opportunities for the target population across different school settings and geographical areas (Reid & Young, 2012). Thus, while research literature on youth aspirations, career development, guidance and counselling, behavioural psychology, and human capability all served as starting points for the investigation, a mixed-methods sequential phase research design was chosen in order to enable the researchers to familiarise themselves with a particular target group (male and female students attending Year 10) from a variety of schools. The aim of the focus group phase was to pilot questions drawn from the literature, and to better understand what was and was not developmentally appropriate. As the research questions were not sensitive and unlikely to cause embarrassment, focus groups provided an ideal method to collect data that could then be analysed and the results used to tailor an instrument for use in a large scale cross-sectional survey.

In the remaining sections of this paper, we outline the unfolding complexities behind our focus group participants' self-reflections related to their career choice capabilities; a better understanding of which was crucial for the development of a high quality survey instrument. We then describe how discoveries made during focus group discussions provided invaluable insights that enabled the researchers to design an appropriate questionnaire for use in an electronic survey across multiple schools in the state of New South Wales. We begin by describing the conduct of these focus groups and show how analysis of these data both informed and improved the development of the survey instrument.

## **Participants**

Each participating school was drawn from a different stratum of the Index of Community Socio-Educational Advantage (ICSEA) developed by the Australian Curriculum, Assessment and Reporting Authority (2010) (See Table 1). This index uses a range of student-level variables such as parental occupation and education level achieved, school location, and proportion of Indigenous student enrolments to assess relative advantage and disadvantage (Australian Curriculum Assessment and Reporting Authority, 2013). The ICSEA scale has a



mean of 1000 and a standard deviation of 100 with a range of 500 (extremely disadvantaged) to 1300 (exceptionally advantaged) (Australian Curriculum Assessment and Reporting Authority, 2012). Given that the majority of schools in NSW are clustered between the 800-1200 strata, we randomly selected two schools within one standard deviation (one on each side of the mean), one school two standard deviations above the mean and two schools two standard deviations below.

**Table 1: Participating schools by ICSEA level, sector, type, and geographic location.**

ICSEA Value	School Code	School Sector	Selective/Non-selective	Geographic location
1100+	School E	Government	Selective	Metropolitan
1001-1099	School D	Independent	Non-Selective	Outer metro area
Mean = 1000				
900-999	School C	Government	Non-Selective	Metropolitan
800-899	School B	Government	Non-Selective	Outer metro area
	School A	Government	Non-Selective	Metropolitan

A combination of government and non-government schools was selected and all schools were co-educational (See Table 1). Although we planned to have four focus groups with six students per group (n=24), student absence or withdrawal from participation on the day led to lower numbers in some schools. Due to the low numbers of attendees in one of the most disadvantaged schools (2 students), we recruited an additional school in that stratum. Thus, between two and six students from each participating school were interviewed in five groups for about 45 minutes per group (length of one standard lesson). While the quantitative survey was aiming to target students attending Years 9 to 12, for the purpose of the focus groups participants were recruited from the same year grouping (Year 10). This was due to the fact that students in Year 10 experience career guidance and were expected to be more engaged in career related topics. Being from the same year grouping also allowed for a more relaxed atmosphere during the face to face discussions (D. L. Morgan, 1992). Table 2 demonstrates the exact

number of participants per school as well as gender composition. All names are pseudonyms.

**Table 2: Participating students by school and gender.**

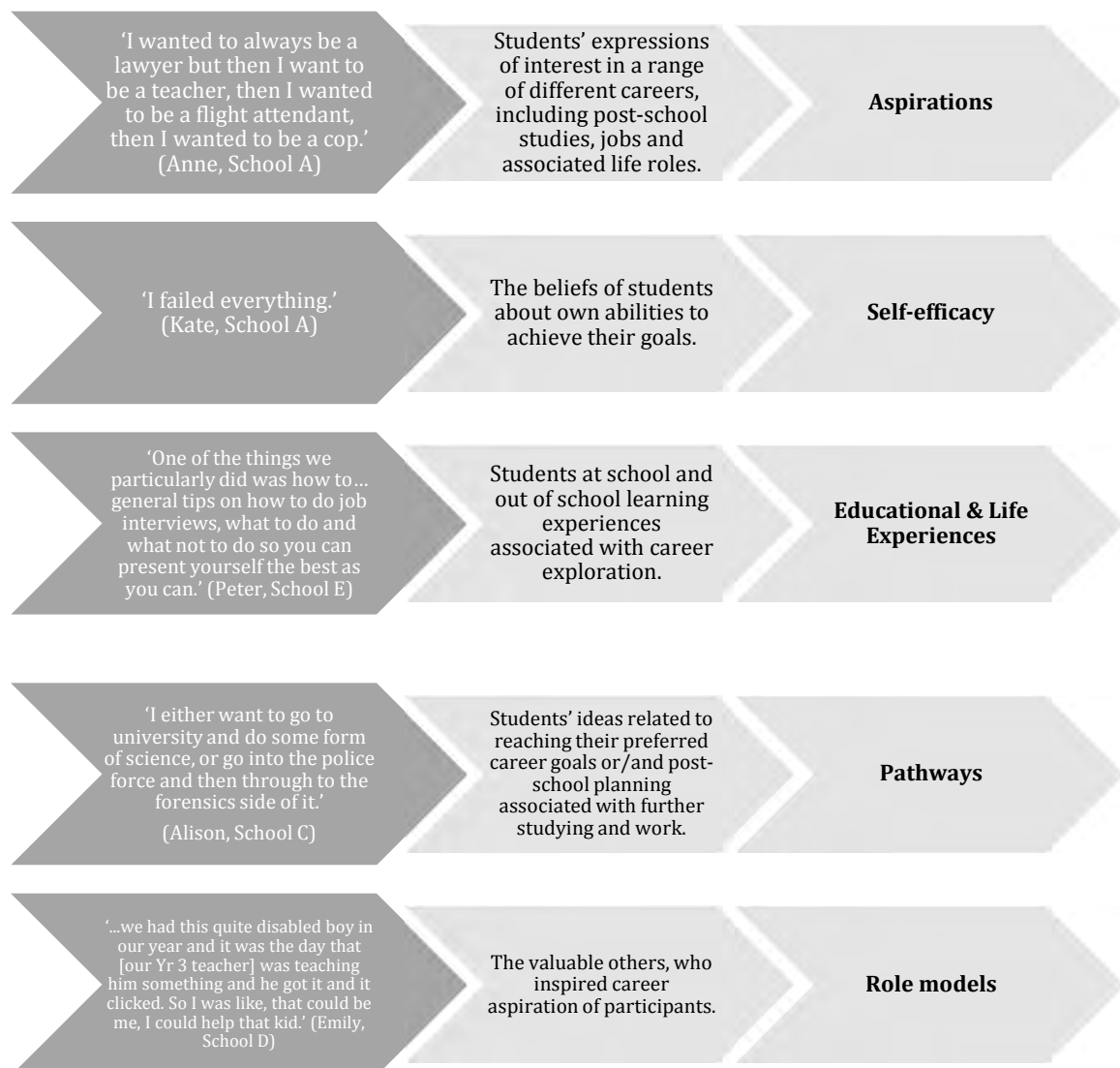
School Code	Total number of participants	Male	Female
School A	5	John	Mary
		Bob	Kate
			Patricia
School B	2	Mike	
		Andrew	
School C	6	Eddie	Jessica
		Josh	Amelia
		Michael	Alison
School D	4	Jack	Isabella
			Emily
			Anne
School E	6	James	Nicole
		Peter	Olivia
			Emma
			Linda
Total:	23	10	13

### Data Collection

The focus groups were conducted over a nine-week period during the first and second terms of the 2012 school year (Feb-June). Data were collected in the school environment via a brief questionnaire and semi-structured group interviews allowing us to sample a broad range of experiences (Creswell, 2005; DiCicco-Bloom & Crabtree, 2006; Seidman, 2006). Coding of the units of data (i.e. words, expressions, sentences and/or group of sentences related to the same topic) and identification of the themes was achieved using a number of scrutiny techniques (Ryan & Russell, 2003), including identification of ‘similarities and differences’ between units of data, and searching for literature-related material to understand how the qualitative data illuminated the experiences of informants. Finally, ‘metacoding’ was used to evaluate the relationship between previously identified themes to identify new overarching themes (Ryan &

## Data analysis

The focus group data analysis revealed several themes related to students' career aspirations and associated school experiences. Some of these themes, including 'aspirations', 'educational & life experiences' and 'pathways', were driven by the literature inspired interview questions. Another theme, 'self-efficacy', was less expected and emerged after more complex content scrutiny. Themes, as depicted in Figure 3 below, were later utilised as domains in the survey instrument.



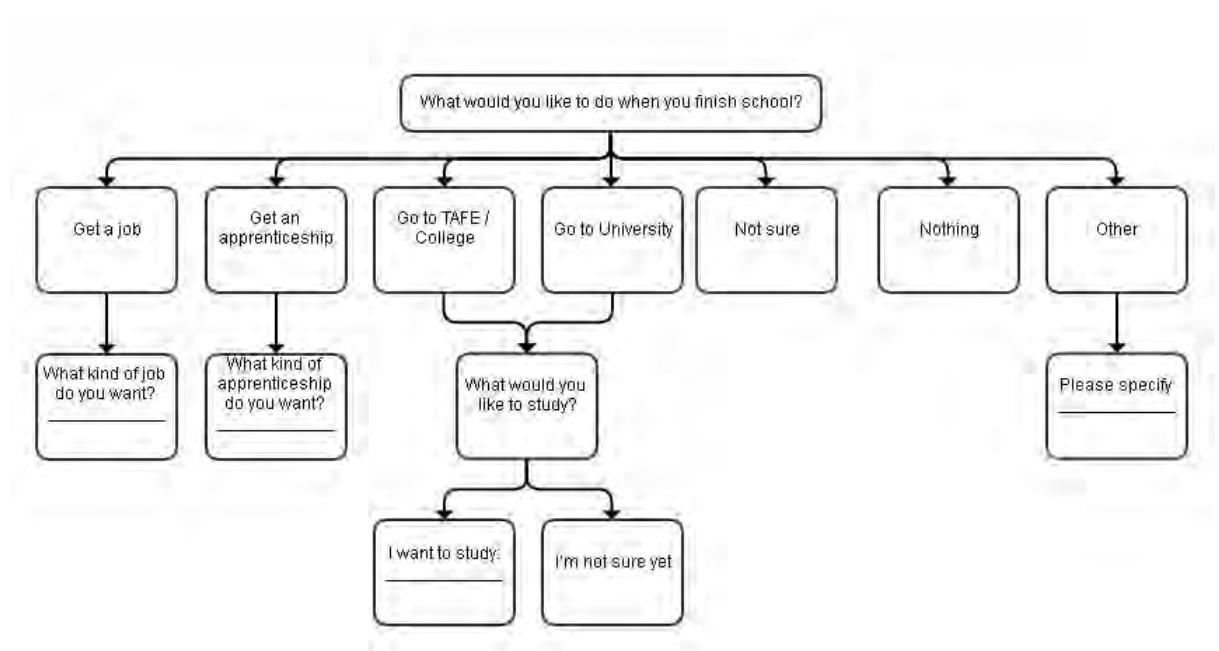
**Figure 3: Themes and categories that emerged from qualitative analysis of the focus group data.**

In the following section, we describe how the analysis of the focus group data directly informed the development of survey items within each of these domains, beginning with career aspirations.

### *Aspirations*

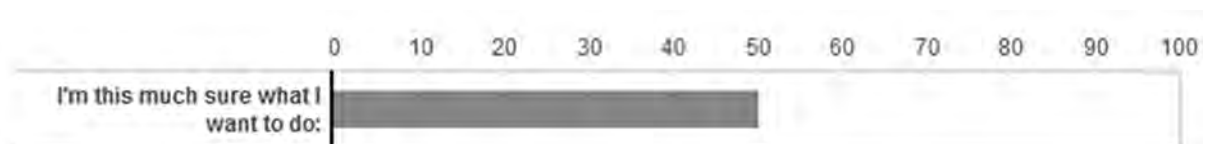
When looking at the way our participants articulated what they would like to do in their future career, it was clear that some students have a number of alternative preferences, while others are not sure of what they want. While this was anticipated from our review of the literature, the participants' responses emphasised the importance of separating out students who did not have any plans at all and students that did have a plan but were still unsure of the detail. For example, Nicole (School E) stated that she had 'absolutely no idea' what she wanted to do when she left school, while Jack (School D) said that he was considering going to university but was still undecided about the field of study. Jack was also thinking of becoming a pilot, however he was not certain of what he needed to do to work in this profession.

These two responses from Nicole and Jack highlighted that there may be important differences between students who are uncertain of what they want to do once they leave school, indicating that responses to questions in this domain can be misleading if more complex questions are not asked. As differences between students in terms of their future career certainty was one of the central questions guiding this research study, we made sure to include numerous response options. This way, we could better understand what students were uncertain of and group them appropriately for statistical analysis. The final design of this multi-stranded question is presented in Figure 4 below.



***Figure 4: Post-school career options: dividing questions into branches based on the previous responses.***

The above question was followed by a sliding bar asking students to indicate how much certainty they have (0-100%) in choosing their future career (Figure 5). This item allowed us to more precisely assess the differences between students who said they had no idea of what to do after finishing school versus those who had some options in mind but were uncertain which one they would like to pursue, thereby ensuring that we were not conflating the two groups. This was important because of the study focus on students' career capability and our interest in what characterised students who were uncertain in their career aspirations versus those who were not.



***Figure 5: Level of career certainty response format.***

These two items – what would you like to do when you finish school and self-reported certainty in response – were designed to work together. The first aimed to assist us in dividing

the participating students into two groups: ‘career certain’ and ‘career uncertain’, and the certainty scale provided an additional safeguard to ensure that the grouping of students was accurate.

### *Self-efficacy*

Some focus group participants with multiple career aspirations discussed their options in order of preference followed by perceived achievability. An example is Emma (School E), who said ‘I want to do something creative like be a magazine editor. But then if I don’t reach that it’s probably going to be like a museum curator’. Similar responses across groups confirmed that students were exercising career adaptability, as described by Super and Knasel (1981) and later by Savickas (1997). Our participants also indicated that some students may temper their future aspirations according to their perceived academic ability and self-efficacy, a trait that has been noted in recent Australian research (Hawkins, 2014). This finding prompted us to include two items designed to tap into student perceptions of their academic abilities relative to others in their year group, and their own self-efficacy and problem-solving abilities. In the first item, we asked participants to self-assess their academic achievements by selecting one of three options:

- I’m in the top third of my year
- I’m in the middle third of my year
- I’m in the bottom third of my year

In the second item, we included three six-point forced response questions that were adapted from the general self-efficacy scale (Schwarzer & Jerusalem, 1995), as recommended by Alkire (2005):

- I usually can solve difficult problems if I make enough effort.
- I can usually think about several possible solutions when dealing with problems.

- Usually it's easy for me to follow my goals and work towards achieving them.

The inclusion of these two items allowed us to identify some of the more objective (i.e., self-reported achievements) and subjective (i.e., perceptions of self-efficacy) measures of career choice capability. These items would enable us to compare groups and to determine whether prior achievement and/or self-efficacy were associated with career certainty.

### *Educational & Life Experiences*

The range of resources, experiences and activities that participants accessed to explore career opportunities included families, local communities, schools, universities and other organisations. Interestingly, not only did we find diversity in students' personal (home-based) career related experiences, but school organised initiatives also varied considerably across all five participating schools. For example, at the time of the focus group discussions (first half of the school year), not all students had experienced career education sessions but those who had found them very useful. Students from School E, for example, discussed the benefits they received from group career advisory sessions where they covered a large variety of topics:

Well, in our class Mrs X. will come and teach us and we just learn about... trying to get experience in jobs and how to write a resume and stuff like that... and work experience, and how to choose what kind of jobs you wanna do. (Olivia, School E)

In the class we did like this online quiz thing... and it kind of gave us list of career options that... like... based on the quiz that they think we would be good at or will suit us. (Linda, School E)

Meanwhile, participants from School B talked about a one-day career related event that their school had organised:

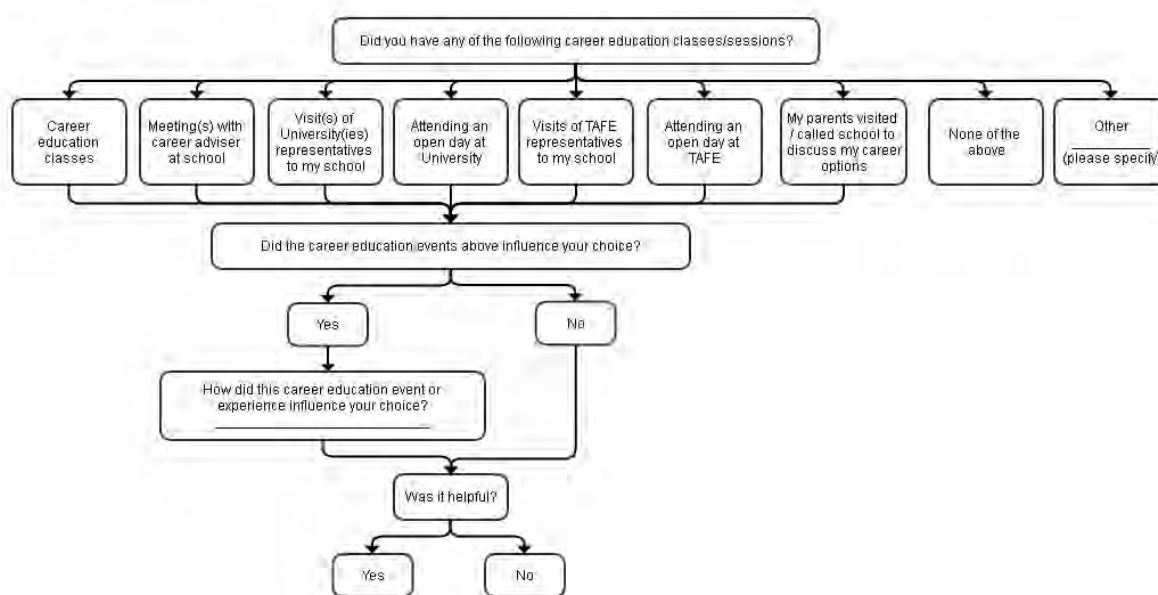
We had a career expo at the end of last term and we had to go around to different workshop things and they told us about the job, what you need and how to write your resume for it. (Andrew, School B)

Students in metropolitan schools in disadvantaged areas (Schools A and C) indicated that their schools had strong connections with universities through various support programs. Events that they mentioned included visits by university representatives, excursions to university campuses with demonstration of their facilities, student participation in a variety of activities, and talks from current university students with backgrounds similar to school students who may not have thought about studying at university before.

Participants from school D had not had any formal career sessions apart from a more general ‘goal setting’ workshop:

Goal-setting... They’re pretty good, they go over the future and stuff... I guess it’s about making the right size goals and going in and achieving them, how you do it and stuff. (Emily, School D)

This variety of career choice related experiences and their inconsistency from school to school inspired us to include another multiple choice response question, where students could select all of the options that were applicable to them. We also included additional (skip logic) questions enquiring about the usefulness of these experiences (see Figure 6 below).



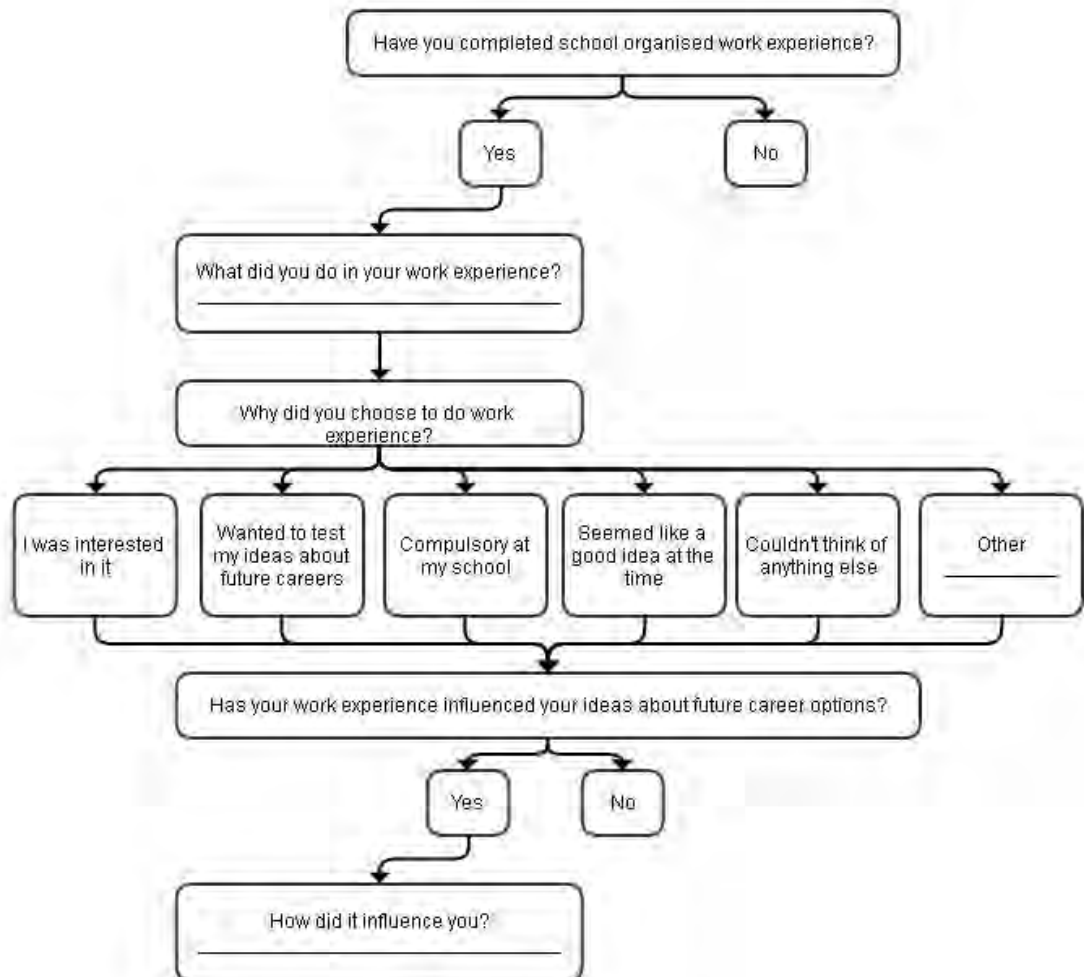
**Figure 6: Career education classes/sessions: dividing questions into branches based on the previous responses.**



Despite participants from School D not having had any of the experiences listed in Figure 4 above, they were aware that they were going to have career related activities later during the year:

We have work experience later in the year, so if Jack wants to go and do some piloting stuff in an office, he can go and do that. (Isabella, School D)

In response to this comment, we included another series of questions investigating school organised work experience, students' reasons for doing it, and the effects on career decision making (Figure 7).



**Figure 7: School organised work experience: dividing questions into branches based on the previous responses.**

These questions allowed us to tap into the contributions that educational experiences may make to differences between students in terms of their career readiness, which was the aim of the second research question guiding this study.

### *Pathways*

When students were asked which of their school subjects they considered helpful for their preferred career, not all participants could draw straight forward connections between the school curriculum and their desired post-school career trajectories. However, this was not simply because students did not know what they need to study for their chosen careers. For example, Mike from School B knew that in order to become

a computer engineer, you really just need to know what's in a computer, like the RAM, the CPU, hard drive, it's good to know other aspects like coding and scripting. (Mike, School B)

However, when Mike was asked which of his subjects might be helpful for him in preparation for his chosen career, he responded that they 'don't have a software class'. Later in the discussion, Mike indicated that he was aware of subjects such as computing and multimedia, which could help in a computer engineering course in the future, yet these subjects were not available at his school. Due to this curriculum limitation, Mike was considering an alternative career for which he was doing music:

I think music will help me go towards the sound engineering. Because it helps me learn about the staves, about the sounds, that's about it. (Mike, School B)

This example demonstrates that some schools provide limited subject offerings and that some students have to select from electives that are not obviously associated with their most desired careers, in some cases causing them to deviate from their original career preference. For instance, in the example above, Mike altered his career preference based on

the availability of educational opportunities at his school. This finding prompted us to include a sequence of questions about the availability, range and appropriateness of elective subject choices in the survey questionnaire.

Schools A and B were offering student scholarship programmes, with the support of government and university representatives, to help students decide what they want to do and be more prepared for post-school transition:

We [our school] run lots of programs which is really good, like lots of scholarship programs to help us [as students] to decide what we want to be in the future and what opportunities we have. (Mary, School A)

Supported by recent initiatives, such as the Australian Government's Higher Education Participation and Partnership Program (HEPPP), university outreach programs attempt to encourage students from disadvantaged backgrounds to aspire to university and to prepare for it during their high school years. However, while targeting disadvantaged students, feedback from focus group participants suggested that these programs are very competitive and only offer places for high achievers:

The end of year eight, you have to sign in a form and put in either if you want to do N or M program and then from that, depending on your attendance and your risk entries and basically just how you go along, general marks, so that's how everybody was selected. (Amelia, School C)

For example, only 15 students from 115 applicants at School C were admitted to one university's program, roughly indicating a 13% admission rate. To determine who has (and who does not have) access to HEPPP programs, we incorporated questions enquiring whether students are aware about such options and, if so, whether they participate in them. Logos of HEPPP sponsored programs operating in NSW were inserted alongside the survey questions to provide visual clues to trigger students' memories.

Participants from School C, while describing one of their visits to a university, gave positive feedback about ‘Bullseye’; a visual representation of school subjects and potential jobs that are associated with those subjects. In Bullseye diagrams, school subjects are placed in the middle circle and related professions are placed in the circles around. Increased difficulty and the amount of study required to enter the profession corresponded with the distance between related professions and the school subjects circle at the centre of the poster. Amelia from School C referred positively to one of those posters:

The most helpful would have to be when we looked at the ‘Bulls-eye’, because there were some subjects that we didn’t actually realise could get you into your – like where you wanted to be at where you finished school. (Amelia, School C)

‘Bulls-eye’ is one of the online career guidance resources promoted by the Australian Government’s Department of Education (2013). Knowing that some of those resources are recommended for incorporation into career education sessions at Australian schools (Board of Studies New South Wales, 2008), we included a list of resources in the survey and asked students whether they knew about those web sites, whether they had accessed them, and whether they had found them useful.

Items in this domain helped us to investigate the effect and usefulness of the career education resources distributed by the Australian Government. Given that policymakers have recently introduced a number of initiatives, including the above described university outreach programs, as well as Internet-based career self-assessment, exploration and guidance options (Galliot & Graham, 2014), it was important to incorporate a variety of these educational experiences in the final survey questionnaire.

### ***Role models***

According to Pleiss and Feldhusen (1995), role models (people who are considered worth emulating) can facilitate the decision making process. Our focus groups’ participants

referred to a range of role models often described in the literature (Hackett, 1989), including family members, other relatives, friends and their relatives, and school staff. Interestingly, whilst the occupations of some people in the social network of participating students were considered examples of a good career, others provided students with an example of what not to do. For example, Jessica from School C referred to seeing her parents and what they do as a positive career example:

To be honest, my father, him getting into the whole psychology slash biology, all the study of the mind and everything has really inspired me. (Jessica, School C)

Conversely, seeing what his parents do discouraged Jack from undertaking similar work:

Up to the point that I don't, in some cases I don't like what they do, just because it's boring. My dad's an accountant and that would be so boring, so annoying, so that sort of turned me off accounting. (Jack, School D)

Seeing the work of teachers prompted both Peter (School E) and Anne (School D) to think about pursuing a career in teaching, however, their reasoning was quite different. Anne appreciated the personal involvement associated with teaching, such as being caring and providing help to those who are in need:

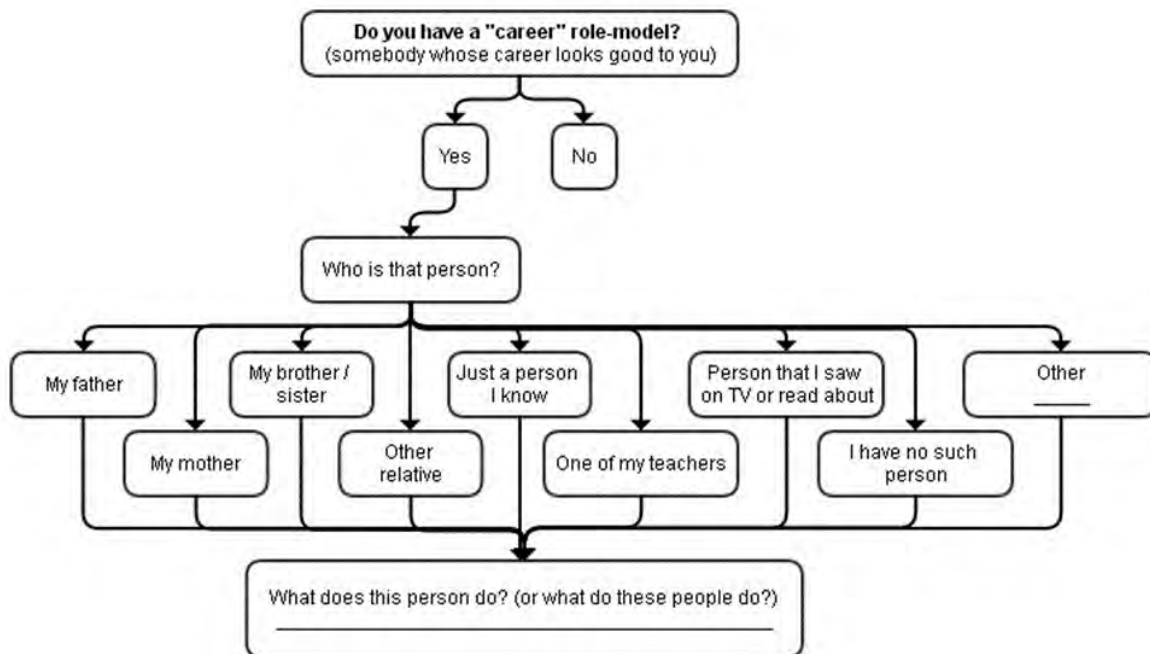
We had this quite disabled boy in our year and it was the day that she was teaching him something and he got it and it clicked. So I was like, that could be me, I could help that kid, I could help kids like that to get things that otherwise they might not have. (Anne, School D)

Meanwhile, Peter was attracted to job security:

I think being a primary teacher would be quite... I think there would be plenty of jobs there for me because I'm a male. (Peter, School E)

Learning about the variety of inspirational people in the lives of students led us to develop a sequence of questions, which are depicted in Figure 8. By enquiring about the

source of career-role models, we were interested to see whether students who are more active in their career decision-making are affected more by particular types of sources (and whether these related to the personal or educational spheres) and experiences associated with them.



**Figure 8: ‘Career’ role-model: dividing questions into branches based on the previous responses.**

Conducting focus groups prior to questionnaire design yielded many benefits in this study. Firstly, interaction with representatives of the target group enabled us to explore the career-related ideas of high school students in different socioeconomic regions and various school types (including government and non-government schools). While some students’ reflections were consistent with the literature, others helped to enrich our awareness of other possible response options. It was interesting, for example, to gain a better understanding of the role that role-models played in students’ career determination. This allowed us to explore and incorporate a more relevant variety of responses related to career choice questions in the survey questionnaire.

Secondly, focus groups assisted in familiarising the researchers with the language used by the students in the study. Conversations with these young people indicated that they used a particular vocabulary and also highlighted the importance of combining, where appropriate, verbal and visual languages. The latter is supported by the dual-processing model of multimedia learning, which explains the effects of both languages in comprehension and learning by different individuals (Mayer & Moreno, 1998). Being aware of students' verbal expressions associated with this particular topic and knowing that some students might prefer visual accompaniments to questions enabled us to ensure that the final questionnaire was user-friendly and appropriately tailored to the target participant group.

Thirdly, focus groups helped us to partly fill the gaps in the research literature with regard to the variety of educational and life experiences across a range of students, highlighting the need for us to sensitively frame demographic questions. The topic of a lack of curriculum diversity at high school level, for example, while being discussed more generally in education-related literature, seemed to be less prominent in career determination studies. Thus, without conducting exploratory focus groups in the first phase of the investigation, the research team risked not including questions associated with curriculum diversity in the final survey questionnaire. It also became clear during the focus group discussions that some students had a parent who was unemployed or deceased, which alerted us of the importance of providing additional response options to take account of these possibilities.

Finally, focus groups enabled us to pilot some of the planned survey questions and to adjust individual questions based on students' ease of interpretation. The focus group findings were then used to further develop and improve the draft survey questionnaire. As such, one of the focus group questions, 'what do you want to do when you finish school?' was transformed into series of questions. Transformations like this played a crucial role in the later stages of survey data analysis, particularly, when separating between 'career certain' and 'career

uncertain' groups, as well as their comparison (Galliot & Graham, 2015; Galliot, Graham & Sweller, 2015).

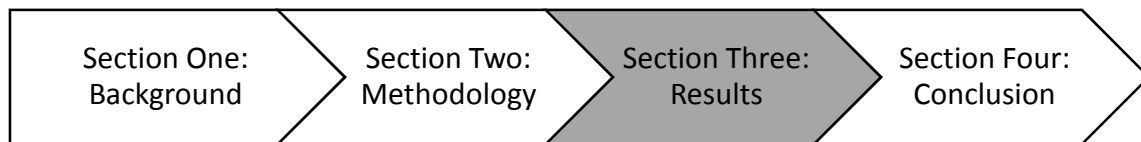
## **Conclusion**

Focus groups have been widely used in the behavioural and social sciences for many years, however, this methodology is now being used more frequently with the increased popularity of mixed-methods research designs. One way in which focus groups can be used is to test ideas and constructs in an initial exploratory phase as part of a sequential phase mixed-methods research project. Despite the benefits that focus groups may offer in this regard, there is surprisingly little published research that describes the process in detail. This paper demonstrates how exploratory focus groups were utilised in the first part of a sequential mixed-methods research design to inform the development of a large-scale quantitative survey involving secondary school students. Themes identified in the process of focus groups data analysis informed a number of survey constructs, and provided us with information about the diversity of our participants. This alerted the research team to the complexity of response options that would be needed in order to capture the full range of student responses, ensuring that important group differences were not conflated. The wide range of students' experiences communicated also allowed the researchers to design a more relevant variety of possible response options in the questionnaire, helping to augment and improve the quality and participant-friendliness of the draft survey instrument.



## **SECTION TWO: SUMMARY**

Section Two, which included Chapter Four and Chapter Five (Paper Two), provided a roadmap for the investigation into career choice capability and also revealed more specific details on the way in which the first phase of the study was to inform the second phase. Thus, based on the specific purpose of the study and the need to develop a conceptual framework, this section established further clarity in the research process and informed the data collection and analysis. Chapter Four, 'Methodology', provided background information in relation to the purpose of the study in the development of the research design. It reviewed currently used practices in career determination investigations, highlighted the possibilities and limitations of hybrid research methodologies, and justified the methodological choices made in order to achieve the research objectives of the present investigation. Lastly, the chapter provided an outline of the sequential exploratory mixed-methods research design used in the current investigation. Chapter Five, represented by Paper Two, then provided an illustration of the way in which the findings from the first phase of the study, focus groups, informed the development of the data collection instrument for the second phase of the investigation, a large scale cross-sectional survey. In doing so, it first provided justification of the use of exploratory focus groups. It then demonstrated concrete examples of the findings and their effects on the strategic choices made in structuring the questionnaire and the incorporation of a variety of questions and response options. Together these chapters provided the necessary preparation for designing and finalising the instrument of the second phase of the study, a large-scale cross-sectional quantitative survey, administered online. The next section reports on the results of this survey.



## SECTION THREE: RESULTS

The previous sections (One and Two) presented the theoretical and methodological foundations underpinning this doctoral project. Based on the critique of the current policies affecting youth career determination and drawing on Amartya Sen's (1992) theory of human capability, Chapter Three (Paper One) developed a conceptual framework specifically for the purpose of investigating career choice capability. This conceptual framework recommends that in order to get a 'partial, but significant view' of students' career choice capability, we need to evaluate both students' personal characteristics and educational experiences. Following this recommendation, Chapter Four proposed that the investigation be conducted through a sequential exploratory mixed-methods research design (Ivankova et al., 2006). Chapter Five (Paper Two) then described the way in which the exploratory focus groups of the first phase of the study informed the design of the survey instrument for the second phase of this mixed-methods project. Section Three, 'Results', presents the survey findings resulting from the second phase of the study. The results are presented in three chapters (Chapter Six, Chapter Seven and Chapter Eight) that examine associations between the career certainty of young people and the personal and educational resources available to them in order to engage with the research questions posed in Chapter One 'Introduction'.

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**Chapter Six: Survey results**  
**personal characteristics of career uncertain students –**  
**Paper Three**

**Citation:**

Galliot, N., Graham, L. J., & Sweller, N. (2015). Who Struggles Most in Making a Career Choice and Why? Findings From a Cross-Sectional Survey of Australian High-School Students. *Journal of Psychologists and Counsellors in Schools*, 25(02), 133-151.  
doi:10.1017/jgc.2015.7

Pages 94-117 of this thesis have been removed as they contain published material. Please refer to the following citation for details of the article contained in these pages.

Galliot, N., Graham, L., & Sweller, N. (2015). Who Struggles Most in Making a Career Choice and Why? Findings From a Cross-Sectional Survey of Australian High-School Students. *Journal of Psychologists and Counsellors in Schools*, 25(2), 133-151.

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## **Chapter Seven: Survey results**

### **Educational experiences of career uncertain students –**

#### **Paper Four**

##### **Citation:**

Galliot, N., & Graham, L. J. (2015). School based experiences as contributors to career decision-making: findings from a cross-sectional survey of high-school students. *Australian Educational Researcher*, 42(2), 179-199. doi:10.1007/s13384-015-0175-2

Chapter Six (Paper Three) provided the first part of the results of the survey involving Year 9-12 high school students from 12 New South Wales schools in Australia. The analysis presented within Chapter Six examined the relationship between students' career certainty and their personal resources, as well as some achievements closely related to personal resources. The significant findings showed that career uncertain students were more likely to be from families speaking English language at home, and to have parents working in occupations associated with low socioeconomic status. Those students also reported lower academic, problem-solving and goal orientation abilities. Together, these findings demonstrated the effects of students' personal characteristics on their ability to convert available resources into career opportunities. Chapter Seven (Paper Four) continues reporting the results from the same survey with the focus on school-based educational experiences and the closely related functionings/ achievements of students. It aims to investigate the contribution of educational experiences received through schools on students' career choice capability.

# **School Based Experiences as Contributors to Career Decision-Making: Findings from a Cross-Sectional Survey of High School Students**

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## **Abstract**

This paper is based on a study examining the impact of young people's backgrounds and educational experiences on career choice capability with the aim of informing education policy. A total of 706 students from secondary schools (Years 9-12) in New South Wales, Australia took part in an online survey. This paper focuses on the differences found between groups on the basis of their educational experiences. Participants who were uncertain of their future career plans were more likely to attend non-selective, non-metropolitan schools and were more likely to hold negative attitudes towards school. Career 'uncertain' students were also less likely to be satisfied with the elective subjects offered at their school and reported less access to career education sessions. It is concluded that timely career information and guidance should be provided to students and their families in order to allow them to more meaningfully make use of the resources and opportunities available to them with a view toward converting these into real world benefits.

**Keywords:** Youth Aspirations, Career Education and Development, Post-school Transitions, Career Certainty

## **Introducing a ‘first-world’ problem**

Globalisation and the outsourcing of low-skilled labour to developing countries has contributed to a sustained increase in youth unemployment in many Western developed countries, including Australia (Tomlinson, 2012). Whilst a number of government programs have been trialled with the aim of increasing academic achievement and degree qualifications, policy responses to the problem of low attainment, early school leaving and subsequent unemployment are becoming increasingly punitive (Linda J. Graham et al., 2015). The new Australian government, for example, is currently proposing to withhold income support for all persons under the age of 30 who are not engaged in employment or education for a period of six months each year (Commonwealth of Australia, 2014). Whilst this proposal may encourage some young people to remain in school for longer and/or to obtain higher qualifications than they otherwise would, it will not help to improve the availability of jobs, the shortage of which is exacerbating youth unemployment rates.

In the eyes of government, too many young people are leaving school each year without a clear and achievable career plan in an increasingly competitive labour market and this leaves them more vulnerable to unemployment. According to McMillan and Marks (2003), young people who do not transit to full-time work, education or training after finishing school are at significantly greater risk of not securing full-time employment in the future. The longer that young people are unemployed after finishing school, the harder it is for them to enter the workforce (Brotherhood of St Laurence, 2014a). In addition to challenges in finding employment, these young people also tend to have poorer health, are marginalised from the communities in which they live, and are over-reliant on income-support payments (Brotherhood of St Laurence, 2014a). Due to the decreasing number of entry-level employment opportunities, as well as high levels of competition for available jobs, youth unemployment rates for 15-24 year olds is as high as 20 percent in some regions of Australia

(Brotherhood of St Laurence, 2014b), and ‘[a] growing number of young people are in danger of being locked out of stable employment for the long term’ (Brotherhood of St Laurence, 2014a).

### *Recent policy responses*

To engage with this problem, government policy has increasingly focused on raising the aspirations and achievement of young people in an effort to get them to think about their futures, whilst incentivising participation in higher education and training. The aspirations of students from disadvantaged backgrounds is a principal focus of recent policy reforms due to some researchers arguing that these young people are aspiring too low (Polidano et al., 2012). The question remains, however, as to whether higher aspirations are sufficient in and of themselves and whether these policies are targeting the right students or practices that they need to in order to be effective.

Indeed, the aspirations of disadvantaged youth may not be the core problem. For example, Graham, Van Bergen and Sweller (2015) have found that disadvantaged young people do have aspirations but these may not involve going to university. They argue that a growing disconnect between some young people’s aspirations and the academic school curriculum, together with a ‘policy preoccupation’ with university education, is widening gaps between school, training and employment and fuelling disengagement from school, leading to even greater difficulties in post-school transition. Similar assertions have been made by Gale (2015) who argues that whilst students of low socioeconomic status (SES) may have aspirations that are different to those promoted via the ‘neoliberal imaginary’, these aspirations are still legitimate and require support. Bok (2010), however, maintains that low SES students often *do* have high aspirations but their realisation is comparable with doing ‘a play without a script’ (p. 175) due to a lack of cultural capital, networking opportunities, and information about pathways to aspired careers.



An increase in the availability of career related information may not improve matters for the growing number of young people who experience difficulties in post-school transition, however. Over the last two decades, several career information resources have been developed, including the Australian Blueprint for Career Development (Department of Education Science and Training, 2005), the Australian Government's 'My Future' website ([www.myfuture.gov.au](http://www.myfuture.gov.au)) (M. McMahon & Tatham, 2008), and 'Career Bullseye' posters (Australian Government Department of Education and Training, 2013) to name just a few. Despite an associated growth in online career information, youth unemployment continues to rise (Australian Bureau of Statistics, 2014), as does the number of young people who are not in education, training or work (Tomlinson, 2012). The question therefore remains as to whether current education policies are appropriately directed both in terms of audience and subject.

In our earlier work, we have argued that such policies are based on at least four assumptions: first, that career choice capability is a problem of individual agency; secondly, that the dissemination of career information can empower students to act as 'consumers' in an unequal job market; thirdly, that agency is simply a question of will; and finally, that school education and career advice is of equal quality, distribution and value (Galliot & Graham, 2014b). This paper engages with the fourth assumption by investigating differences between groups (career 'certain' and career 'uncertain' secondary school students) in terms of their educational experiences. First, however, we explain how career uncertainty is perceived in the research literature from the dominant field in this area of research (psychology) and offer what we believe is a conceptual lens better suited to understanding potential influence from the school environment.

### *Conceptual framework*

*Career indecision* has been intensively researched since 1950s (Super, 1957) and is described as problems that a person might experience during the career decision-making process (Brown & Rector, 2008; Osipow, 1999) or as an individual's inability to make a decision in relation to his or her education and/or occupation (Guay et al., 2003; Kelly & Lee, 2002; Leong & Chervinko, 1996). Gati, Krausz and Osipow (1996) believe that career indecision can happen because of internal or external effects, such as students' lack of career decision-making readiness or if an individual lacks access to appropriate information.

While career indecision is a temporary state and part of the normal career determination process (Creed et al., 2006), some individuals experience chronic career indecision, which is also called *career indecisiveness* (Fuqua & Hartman, 1983; Hartman & Fuqua, 1983). Di Fabio, Palazzeschi, Asulin-Peretz and Gati (2013) argue that career indecisiveness can be associated with personal characteristics such as high anxiety, obsessive-compulsive tendencies, low self-esteem, neuroticism, perfectionism, procrastination and low self-efficacy. The existing research, however, predominantly focuses on personal traits of career uncertain students or in rare cases on environmental influences, such as the availability of career guidance information. Research combining both is scarce. This leaves educational policymakers with only partial information about the reasons behind the difficulties experienced by different student groups.

This doctoral research project draws on Amartya Sen's (1995) theory of human capability to examine career choice formation as a *complex developmental process*; one that is influenced by personal characteristics and background, as well as broader environmental factors. One of Sen's major contributions to political philosophy was to make it clear that people possess different abilities which can affect their conversion of *means* into *ends*, which has succeeded in focusing attention on inequalities in capability and how this contributes to

outcome inequalities. Importantly, ‘capability’ is *formative*; it is influenced by a myriad of factors including birth circumstances, as well as developmental contexts and access to opportunities. Therefore, whilst Sen’s work has been mainly applied to development economics, his theory also has significant implications for education.

For example, as a ‘universal’ public good, the provision of education is often assumed to have equal benefits for all recipients; however, researchers in education note that education has several unique properties that make it more unstable than is generally assumed (Saito, 2003; Unterhalter, 2003; M. Walker, 2006). For example, the quality and breadth of a child’s educational experiences, in addition to their family background and prior-to-school learning experiences, can affect their access to the academic school curriculum. Differences in access together with the inadequate provision of supports (which are also imperfectly allocated) can lead to further difficulties in access, dictating what children do and don’t get out of the ‘good’ in question.

School education is also highly variable with significant differences between systems, between schools and even between classrooms in terms of what is taught to whom and how well (Anyon, 1981; M. W. Apple, 2004; Luke, 2010; Nolan & Anyon, 2004), all of which contribute to differences in student capability. As similar findings of a ‘postcode lottery’ have been reported by researchers in the field of career education and development (Langley, Hooley, & Bertuchi, 2014), it follows that an increase in the availability of career related information may not lead to equal career opportunities if that information differs by school context or if students differ in their ability to convert these resources into actual career choices. Both parts of the ‘capability’ equation – *personal characteristics + educational experiences* – are therefore vital in determining an individual’s capability to make a career choice (for a comprehensive discussion of the theoretical framework underpinning this study, see Galliot & Graham, 2014).

This study examines the impact of young people's backgrounds and educational experiences on career choice capability with the aim of informing education policy. The first part of this investigation, which has been published elsewhere (Galliot, Graham, & Sweller, 2015), enquires into the effects of students' backgrounds. In this earlier phase of the research, students' perceived academic and problem-solving abilities, parental occupation, and language/cultural backgrounds were found to influence career determination to a significantly greater extent in comparison to years of schooling and individual characteristics, such as gender and age. Findings indicate, however, that further research investigating differences between students' educational experiences, particularly in terms of their quality and relevance to various student groups, is vital to enable the development of more effective educational policies and to support students in their career determination. This paper therefore attempts to answer the following research question: what characterises those students who are not yet ready to envision and enact their desired future career choice in terms of their educational experiences?

## **Method**

### ***Participants***

This study employed a cross-sectional survey with 706 secondary school students attending Years 9 to 12 in twelve schools of New South Wales, Australia. The survey was administered online and included 66 questions, 29 of which were compulsory and the other 37 were displayed (or not) depending on participants' previous responses. Questions included demographical, behavioural and attitudinal items and attempted to increase the interest and engagement of participants by incorporating nominal, interval and ratio scales, as well as visual illustrations (where appropriate) (Burns & Bush, 2010). The participating schools were selected using stratified simple random sampling, where each of the four strata represented

different levels of advantage as defined by the Index of Community Socio-Educational Advantage (ICSEA).

ICSEA was developed by the Australian Curriculum Assessment and Reporting Authority (ACARA), and assesses all Australian schools on a scale from 500 to 1300 (from extremely educationally disadvantaged to very educationally advantaged) with mean of 1000 and a standard deviation of 100. As the majority of Australian schools are located within two standard deviations of the mean, prospective participants were invited from schools with ICSEA scores from 800 to 1200. The sample was representative of the ratio of government to non-government schools currently observed in the state (Australian Bureau of Statistics, 2013), and included academically selective, as well as comprehensive schools, co-educational and single sex schools, as well as those in metropolitan, outer metro and regional areas (See Table 6).

**Table 6: Percentage of participants completing the survey by type of school.**

ICSEA Value	% of participants	School Code	School Sector	Selective/Non-selective	Single sex/ Co-educational	Geographic location
1101-1200 (Mean+2 Std.Dev.)	43.8	School 12	Non-government	Non-selective	Single sex	Metropolitan
		School 11	Government	Selective	Co-educational	Metropolitan
		School 10	Non-government	Non-selective	Single sex	Regional
		School 9	Government	Selective	Co-educational	Metropolitan
1001-1100 (Mean+1 Std.Dev.)	25.5	School 8	Non-government	Non-selective	Single sex	Metropolitan
		School 7	Non-government	Non-selective	Single sex	Outer metro area
		School 6	Government	Non-selective	Co-educational	Outer metro area
Mean = 1000						
901-1000 (Mean-1 Std.Dev.)	20.8	School 5	Government	Non-selective	Co-educational	Outer metro area
		School 4	Government	Non-selective	Co-educational	Outer metro area
		School 3	Government	Non-selective	Co-educational	Metropolitan
800-900 (Mean-2 Std.Dev.)	9.9	School 2	Government	Non-selective	Co-educational	Outer metro area
		School 1	Government	Non-selective	Co-educational	Metropolitan

Students participated in the survey in the 3 month period from October to December 2012 (Term 4 out of 4 school terms). Students in Years 9 to 12 were encouraged to complete the survey because by Year 9 students are required to select elective subject choices, which can stream them into certain career trajectories. The proportions of Year 9, 10, 11 and 12 in the sample were 22.2%, 31.2%, 14.2%, and 29.3% respectively. In addition, 3.1% of respondents had just completed Year 12 at the time of participation. The majority of the respondents were 15, 16 or 17 years old (26.6%, 28% and 25.5% respectively), 11.2% of participants were less than 15 years old, 7.6% were 18, and the remainder (1%) were 19 or older. The majority of the respondents were girls (64.4%), born in Australia (81%) and had at

least one parent born outside of Australia (43.3% of participants had both parents born overseas and 17.6% had one of their parents born overseas). The most popular language spoken at home among the participants was English (59.1% of respondents reported speaking English only and 26.8% speaking English and at least one other language). The other most popular language groups included Asian (24.5%), Middle Eastern (9.5%), European (3.4%) and Pacific (3.3%) languages.

### ***Measures***

Earlier analyses of this sample's characteristics and family background (Galliott et al., 2015) found no significant differences in career certainty relating to age, school year, gender, whether the participant and his/ her parents were born in Australia, and whether their parents were employed. Being 'career uncertain' was, however, associated with an English-only language background, lower socioeconomic status of parental occupations, lower self-assessment of academic achievements, and lower self-efficacy. However, if a person's career choice capability *is* influenced by their educational experiences, as we suspect may be the case, these findings can only partially explain students' difficulties in career determination. Thus, for the purpose of this paper, the following variables relating to the educational experiences of 'career certain' and 'uncertain' students were analysed:

*Career certainty:* Participants were grouped into 'career uncertain' and 'career certain' clusters using two variables. Those students whose responses to the question 'What would you like to do when you finish school' included 'nothing' or 'not sure' were allocated to the 'career uncertain' group. The remaining participants who expressed an intention to 'get a job', 'get an apprenticeship', 'go to TAFE (Technical and Further Education)/College' or 'go to University', comprised the 'career certain' group. Group membership was then tested via a scale asking students to rate their level of certainty from 0% to 100% (Galliott & Graham, 2014a).

*School sector/type:* Participating schools received unique links to the study survey, which allowed us to identify the school each participant was from. Specific information about the school, such as its location, whether the school was selective or non-selective, government or non-government, and whether it was boys', girls' or co-educational school, was obtained from the Australian Government's *MySchool.edu.au* website.

*Exposure to career-education:* Variables related to students' school experiences associated with career development were largely inspired by focus group discussions previously conducted as part of the same study (see Galliot & Graham, 2014a). Three questions were analysed for the purpose of this paper:

Participation in career education classes/sessions: Respondents were asked '*Did you have any of the following career education classes/sessions?*' and were provided with multiple response options including 'career education classes', 'meeting(s) with career adviser at school', 'visit(s) of University(ies) representatives to my school', 'attending an open day at University', 'visits of TAFE representatives to my school', 'attending an open day at TAFE', 'my parents visited/called school to discuss my career options', 'none of the above', and 'other' with a comment box.

Participation in school organized work experience: Participation in school organized work experience was assessed with two variables. Firstly, students were asked '*Have you completed school organized work experience?*' (Yes/No). Secondly, those who answered 'yes' to a previous question then were asked '*Why did you choose to do work experience?*' The response options included 'I was interested in it', 'wanted to test my ideas about future careers', 'compulsory at my school', 'seemed like a good idea at the time', 'couldn't think of anything else' and 'other' with an open-ended response box for specification.



*Students' attitudes towards school and school learning:* As previous research has demonstrated a strong relationship between attitudes to school, academic achievements and aspirations (Abu-Hilal 2000), participants were asked a number of questions to gauge students' attitudes towards curriculum subjects and school in general.

Reasons for choosing elective subjects: Students could select multiple options out of the following reasons for choosing their electives: 'they are interesting', 'good teacher', 'I prefer these subjects to other options', 'I need them for my planned study/career', 'not enough other choices', 'somebody recommended them to me', 'I'm good in these subjects' and 'other' (with a comment box).

School liking: Students were asked '*Do you like school?*' and provided with five response options from (1) 'I enjoy going to school' to (5) 'I hate school'. Due to small numbers of the 'career uncertain' participants, the responses on this question were re-coded in the process of data analysis to a smaller scale. Combined responses 1 and 2 became (1) 'like', option 3 was coded as (2) 'neutral' and answers 4 and 5 comprised (3) 'dislike' group of responses.

Reasons for school liking: All participants were asked '*What do you like about school?*' and had an opportunity to select more than one option out of 'everything', 'being with other students', 'teachers', 'learning new things', 'doing new things', 'technologies/resources', 'sport/ PDHPE (Personal Development, Health and Physical Education)', 'social events (school trips, camp, fun activities etc.)', 'none of the above', and 'other' (with an open-ended response box for an additional specification).

Reasons for NOT liking school: As per indication of reasons for liking school, all students could select multiple causes for disliking school. Participants were asked '*What don't you like about school?*' Response options included 'everything', 'being

with other students', 'teachers', 'learning new things', 'doing new things', 'technologies/resources', 'sport/ PDHPE (Personal Development, Health and Physical Education)', 'lack of social events (school trips, camp, fun activities etc.)', 'none of the above', and 'other' (an open-ended comment box was provided).

Favourite subjects at school: Participants of the survey were able to select their favourite subject areas out of the following options: 'English', 'Mathematics', 'Science', HSIE (Human Society and Its Environment)', 'Sport/PDHPE', 'Creative Arts', 'Technology', 'Languages' and VET (Vocational Education and Training). They could also select 'none of the above' and 'other' with an opportunity to provide specification in an open-ended response box.

### ***Procedure***

This study received HREC approvals from Macquarie University and the New South Wales Department of Education and Communities.<sup>i</sup> Information about the study with a link to the online survey was placed in participating school newsletters and, in some cases, distributed by the schools via student email. Participation in the survey was entirely voluntary and parents or guardians could withdraw their child or children from the study at any time.

### ***Data analyses***

The survey data was analysed using IBM SPSS Statistics 22 software. As the main aim of this phase of the research project was to compare the educational experiences of students with different levels of career decision readiness, students' responses to the question 'What would you like to do when you finish school' were coded as 'career uncertain' and 'career certain'. The survey responses of these two groups on a variety of other questions were then analysed using descriptive statistics and inferential tests.

Chi-square tests of independence were used for testing associations between career certainty and categorical educational experience variables, whereas independent samples t-tests were employed for continuous variables. In order to control the false discovery rate at  $\alpha = .05$ , significant overall chi-square tests were followed by Bonferroni adjusted z-tests for multiple comparisons of the column proportions (Hochberg, 1988). Cohen's  $d$  was used to provide measures of effect size for t-tests, whereas Cramér's  $V$  was provided to indicate effect size for chi-square tests. In addition, significant results on chi-square tests were accompanied by odds ratios.

## Results

Out of a total of 706 respondents, 80 students were not included in the data analyses as they dropped out of the survey before indicating their career plans. The exclusion of these students from the data analysis had only minor impact on sample composition.

Five hundred and eighty two participants indicated that they held clear intentions regarding their planned post-school career options and were grouped into the 'career certain' cluster. Forty-four students were allocated into the 'career uncertain' group. Before comparing the educational experiences of the 'career uncertain' and 'career certain' groups, the differences in their responses to the question '*How much certainty do you have in choosing your future career? Please indicate on a sliding bar... (from 0% to 100%)*' were examined using an independent-samples t-test. The results,  $t(624) = 5.65$ ,  $p < .0005$ ,  $d = 0.86$  (a large effect size (Cohen 1988), confirmed a significant difference between the groups, where 'career uncertain' students had a statistically lower level of certainty concerning their future career ( $M = 38.73\%$ ,  $SD = 31.14$ ) in comparison with 'career certain' participants ( $M = 64.68\%$ ,  $SD = 29.27$ ).

As reported earlier, no differences between groups were found in relation to gender, year group, age, whether participants and their parents were born in Australia, and whether their parents had jobs. The following section examines the contribution of educational experiences, including school sector and type, students' exposure to career education, and students' attitudes towards school and school learning. Other variables associated with educational experiences, including the subjects in which students experienced the most difficulty and self-reported school attendance, were analysed with chi-square tests, but were not significantly associated with career certainty (all  $p > .05$ ).

### *School sector/type*

Being from a school located outside the metropolitan area was significantly related to students' career certainty. These results, however, should be considered with caution as the sample included only one regional school and in the chi-square analysis one of the expected cell frequencies was smaller than 5 (see Table 7).

The relationship between career certainty and school type was similarly examined with a chi-square test of independence. Being in a selective school was significantly related to career certainty, with a higher proportion of 'career certain' than 'uncertain' students from selective schools, and conversely a higher proportion of 'career uncertain' than 'certain' students from non-selective schools (both  $p < .05$ , small effect size). Based on the odds ratio, the odds of being 'career uncertain' were 2.72 times higher for students from non-selective schools compared with selective schools.

No significant relationship was found between career certainty and school sector (government or non-government), or career certainty and school type (single-sex or co-educational) (both  $p > .05$ ).

**Table 7: Number and percentage of ‘career certain’ and ‘career uncertain’ students by school type.**

School type	Number (and %) within Career ‘Certain’	Number (and %) within Career ‘Uncertain’	$\chi^2$ value	<i>P</i> value	Cramér’s V
Metropolitan	384 (66.0)	18 (40.9)	12.344	.002*	.140
Outer metro area	159 (27.3)	19 (43.2)			
Regional	39 (6.7)	7 (15.9)			
Selective	175 (30.1)	6 (13.6)	5.374	.020	.093
Non-Selective	407 (69.9)	38 (86.4)			

\* One of the expected cell frequencies is smaller than 5.

### *Exposure to career-education*

The relationship between career certainty and school-organised career education was examined with a chi-square test of independence followed by Bonferroni-adjusted comparisons of column proportions. Having had meeting(s) with a career adviser at school was significantly related to career certainty, with a higher proportion of ‘career certain’ than ‘uncertain’ students being among those who met with their school career adviser (Bonferroni-adjusted  $p < .05$ , small effect size). The odds of being ‘career certain’ were 2.12 times higher for students who had met with their career adviser in comparison with those who did not. Other career session types (i.e. career education classes, visits of Universities and TAFE representatives, attendance of open days at Universities and TAFES) that were listed in the questionnaire were not significantly associated with career certainty (all  $p > .05$ ). Conversely, a higher proportion of career uncertain than certain students indicated that they had not accessed any of the listed options of career education classes or sessions ( $p < .05$ , small effect size) (see Table 8). Based on the odds ratios, the odds of being career ‘uncertain’ were 2.54 times higher for students who did not have any career education experience compared with students who did.

A significantly higher proportion of 'career certain' than uncertain students reported participating in work experience activities ( $p < .05$ , small effect size). According to the odds ratios analysis, the odds of being 'career certain' were 1.17 times higher for students who had completed school organised work experience compared with those who did not. Of those who did participate in school organised work experience, significantly higher proportions of 'career certain' compared with 'career uncertain' students explained that they did so because they were 'interested in it' ( $p < .05$ , small effect size) (see Table 8). The odds of being 'career certain' were 2.40 times higher for those who chose to participate in school organised work experience because they were interested in it. Other reasons for doing work experience that were listed in the questionnaire, such as wanting to test their own ideas about a future career or because work experience was a compulsory requirement at their school, were not significantly associated with career certainty (all  $p > .05$ ).

**Table 8: Number and percentage of ‘career certain’ and ‘career uncertain’ students in significant association with their career education.**

School organised career education	Number (and %) within Career ‘Certain’	Number (and %) within Career ‘Uncertain’	$\chi^2$ value	<i>P</i> value	Cramér’s V
Participation in career education classes/sessions:					
Meeting(s) with career adviser at school (Yes)	205 (35.2)	9 (20.5)	3.966	.046	.080
Meeting(s) with career adviser at school (No)	377 (64.8)	35 (79.5)			
None of the above (Yes)	154 (26.5)	21 (47.7)	9.186	.002	.121
None of the above (No)	428 (73.5)	23 (52.3)			
Participation in school organized work experience (Yes)	250 (43.9)	12 (27.3)	4.594	.032	.087
Participation in school organized work experience (No)	320 (56.1)	32 (72.7)			
Reason for choosing to do work experience:					
I was interested in it (Yes)	160 (27.5)	6 (13.6)	4.030	.045	.080
I was interested in it (No)	422 (72.5)	38 (86.4)			

### *Students’ attitudes towards school and school learning*

#### *Reasons for choosing elective subjects*

Analysis of the relationships between career certainty and reasons for elective subject selection revealed several significant associations. When explaining their reasons for choosing their elective subjects, a significantly higher proportion of ‘career certain’ students in comparison with ‘career uncertain’ students answered that their electives were interesting, that they were good at them, or that they needed them for their planned study/career (all three Bonferroni-adjusted  $p < .05$ , with small effect sizes). The odds of being ‘career certain’ were 2.82 times higher for those who selected their electives because they thought they were ‘interesting’, 2.59 times higher for students who said that they chose their electives because they were ‘good in these subjects’, and 5.04 times higher for those who said ‘I need them for my planned study/career’. Conversely, significantly higher proportions of ‘career uncertain’

students stated that they had chosen these electives because there were ‘not enough other choices’ ( $p < .05$ , small effect size). Based on the odds ratios, the odds of being ‘career uncertain’ were 3.98 times higher for those who selected ‘not enough other choices’ as a reason for electives choice.

Higher proportions of ‘career uncertain’ students also selected ‘somebody recommended them to me’ and ‘other’ reasons for choosing electives, however, in both cases one of the expected cell frequencies (25%) was smaller than five, which suggests that both of these results should be considered with caution (see Table 9). Other reasons for choosing elective subjects that were included in the questionnaire, such as being good at these subjects, preferring these subjects to other options, and having a good teacher, were not significantly related to career certainty (all  $p > .05$ ).

#### *School liking*

The relationship between students’ career certainty and their attitudes towards school were examined with a series of chi-square tests followed by Bonferroni-adjusted comparisons of column proportions. Not liking school was significantly related to ‘career uncertainty’ (see Table 9). Comparisons of proportions within the ‘career uncertain’ and ‘certain’ groups revealed that higher proportions of participants who were ‘career uncertain’ were neutral to or disliked school (both Bonferroni-adjusted  $p < .05$ , medium effect size), whereas a higher proportion of students who were ‘career certain’ liked school ( $p < .05$  with medium effect size) (see Table 9). Based on the odds ratios, the odds of being ‘career uncertain’ were 3.45 times higher for students who were neutral towards school and 4.47 times higher for those who disliked it.



### *Reasons for school liking and disliking*

The proportion of career undecided students who liked school for Sport/PDHPE was significantly higher than the proportion of career decided students who liked school for the same reason (Bonferroni-adjusted  $p < .05$  with small effect size). Conversely, 'career certain' students selected Sport/PDHPE as the main reason for *not* liking school significantly more often than 'career uncertain' participants (Bonferroni-adjusted  $p < .05$  with small effect size). The odds of being 'career uncertain' were 2.16 times higher for students who chose Sport/PDHPE as something that they liked about school, while those who disliked this subject area were 3.89 times more likely to be in the 'career certain' group. Higher proportions of 'career uncertain' students indicated that they dislike 'everything' at school and selected 'none of the above' among the reasons for school liking, however, in both analyses one of the expected cell frequencies (25%) was smaller than five, thus, both of these results should be considered with caution (see Table 9). The remainder of the reasons for school liking and disliking that were included in the questionnaire, such as being with other students, relationships with teachers, learning and doing new things, technologies and resources, and social events, were not significantly associated with career certainty (all  $p > .05$ ).

### *Favourite subjects at school*

The relationships between career certainty and participants' favourite subjects as well as reasons for choosing their electives are also shown in Table 9. Statistically significant relationships were found between career certainty and selecting Science, Human Society and Its Environment (HSIE), and Sport/PDHPE subject areas. Follow-up comparisons of proportions between 'career certain' and 'uncertain' groups demonstrated that higher proportions of 'career uncertain' students came from those who liked Sport/PDHPE (Bonferroni-adjusted  $p < .05$ , small effect size). Conversely, higher proportions of 'career certain' participants were found among those whose favourite subject areas were Science and

HSIE (both  $p < .05$ , and both with small effect sizes) (see Table 9). The odds of being ‘career uncertain’ were therefore 2.00 times higher for students whose favourite subject area was Sport/PDHPE, whereas the odds of being ‘career certain’ were 2.51 times higher for students who favoured Science and 2.48 times higher for those who enjoyed HSIE. Other subjects including English, Mathematics, Creative Arts, Technologies, Languages and VET, were proportionally enjoyed by students in both ‘career certain’ and ‘uncertain’ groups (all  $p > .05$ ).

**Table 9: Number and percentage of ‘career certain’ and ‘career uncertain’ students in significant association with their school and subjects attitudes.**

School attitudes	Number (and %) within Career ‘Certain’	Number (and %) within Career ‘Uncertain’	$\chi^2$ value	<i>P</i> value	Cramér’ s V
Reason for choosing elective subjects:					
They are interesting (Yes)	484 (83.2)	28 (63.6)	10.470	.001	.129
They are interesting (Yes)	98 (16.8)	16 (36.4)			
I need them for my planned study/career (Yes)	258 (44.3)	6 (13.6)	15.803	<.0005	.159
I need them for my planned study/career (No)	324 (55.7)	38 (86.4)			
Not enough other choices (Yes)	67 (11.5)	15 (34.1)	18.321	<.0005	.171
Not enough other choices (Yes)	515 (88.5)	29 (65.9)			
Somebody recommended them to me (Yes)	51 (8.8)	11 (25.0)	12.086	.001*	.139
Somebody recommended them to me (No)	531 (91.2)	33 (75.0)			
I’m good in these subjects (Yes)	333 (57.2)	15 (34.1)	8.862	.003	.119
I’m good in these subjects (No)	249 (42.8)	29 (65.9)			
Other (Yes)	30 (5.2)	6 (13.6)	5.430	.020*	.093
Other (No)	552 (94.8)	38 (86.4)			
Liking school:					
Like	462 (79.4)	22 (50.0)	20.748	<.0005	.182
Neutral	73 (12.5)	12 (27.3)			
Dislike	47 (8.1)	10 (22.7)			
Reasons for school liking:					
Sport/PDHPE (Yes)	208 (35.7)	24 (54.5)	6.203	.013	.100
Sport/PDHPE (No)	374 (64.3)	20 (45.5)			
None of the above (Yes)	10 (1.7)	3 (6.8)	5.232	.022*	.091
None of the above (No)	572 (98.3)	41 (93.2)			
Reasons for NOT liking school:					
Everything (Yes)	30 (5.2)	6 (13.6)	5.430	.020*	.093
Everything (No)	552 (94.8)	38 (86.4)			
Sport/PDHPE (Yes)	129 (22.2)	3 (6.8)	5.790	.016	.096
Sport/PDHPE (No)	453 (77.8)	41 (93.2)			
Favorite subjects at school:					
Science (Yes)	228 (39.2)	9 (20.5)	6.094	.014	.099
Science (No)	354 (60.8)	35 (79.5)			
HSIE (Yes)	186 (32.0)	7 (15.9)	4.941	.026	.089
HSIE (No)	396 (68.0)	37 (84.1)			
Sport/PDHPE (Yes)	206 (35.4)	23 (52.3)	5.023	.025	.090
Sport/PDHPE (No)	376 (64.6)	21 (47.7)			

\* One of the expected cell frequencies is smaller than 5.

## Discussion

This paper examined the effects of educational experiences, including school sector and type, students' exposure to career education, and students' attitudes towards school and school learning on their readiness to make future career choices. Our results indicated that school sector (government/non-government) was not significantly related to career choice certainty and neither was co-educational/single sex school status. However, studying in a selective school and living in a particular geographic location were significantly related to career certainty with higher proportions of career uncertain students attending non-selective and non-metropolitan/regional schools.

Our research also found that students who were 'career uncertain' were significantly less likely to have had access to career education classes and school-organised work experience, were less likely to enjoy school, and more likely to report that they dislike 'everything' about school. When asked what they *did* like about school, students in the 'career uncertain' group were more likely to select 'sport/PDHPE' than 'career certain' participants who were more likely to select these subjects as their reason for *not* liking school. Students in the 'uncertain' group also named sport/PDHPE as their favourite subject significantly more often than students in the 'certain group'. Conversely, students in the 'uncertain' group nominated science and HSIE as their favourite subjects significantly less often than students in the career certain group.

Together, these findings suggest that some educational experiences bear influence on the development of student career choice capability whilst others, such as school sector, do not. Further, this influence may be compounded by the interactions between multiple factors including students' individual backgrounds and characteristics, as well as other educational experiences. Lack of access to career education and guidance, for example, may impact student career choice capability in a number of different, yet interrelated ways. Firstly, the

lack of certain educational experiences, such as career education sessions and school organised work experience, can impact students' perceptions of what is realistically achievable and desirable (L. Smith, 2011). Secondly however, lack of guidance – particularly at the earlier stages of secondary school – may affect students' subject choices, leading to the uptake of subjects that are either not well suited to their interests and abilities or that are not well suited to students' desired career pathways (Gore et al., 2015).

There is established evidence of a strong connection between development of career plans and school subject choices. Catsambis (1994) has suggested that students' earlier career determination often leads to pursuit of associated course work during high school. Elsworth and Harvey-Beavis (1995), in their Australia-wide empirical study, demonstrated a pattern of relationships between occupational interests and the curriculum choices of high school students. The authors recommended that the development of career plans, school subject selection and critical discussions of students' reasoning behind those choices should be integrated within school guidance. If those practices are implemented, students who exhibit consistency between their occupational interests and specific subject choices are more likely to have greater interest in their school work and improvement in their approach to learning (G. R. Elsworth, Harvey-Beavis, Ainley, & Fabris, 1999). Although these recommendations were proposed more than a decade ago, the road to practical implementation seems to have been problematic for a number of schools, with more than 60% of Year 9 and about 20% in each of the Year 10-12 groups in our sample reporting not having experienced any career education sessions while making their subject selection choices.<sup>ii</sup>

Lack of career education sessions may partially explain participants' difficulties in choosing school subjects most relevant to their needs from the range of provided options. Walker, Alloway, Dalley-Trim and Patterson (2006) found that career advisers in NSW schools mostly perform their role on a part-time basis, combining it with teaching and

administrative duties. As a result, they are often unable to allocate enough time for high quality personalised career education and guidance. Our results suggest that these gaps in practice may now be affecting the development of student career choice capability, particularly for students who do not seem to be getting much out of the school curriculum. If so, this could be addressed by establishing more proactive and systematic career guidance, which should provide information and consultations to students and their parents starting from earlier years of schooling, preferably before the actual selection of elective subjects. For example, Gore et al. (2015) recommend that general career exploration, focusing on students' motivations, opinions and pathways, should commence in primary school. As our research has found a significant relationship between career uncertainty and parental occupations associated with low SES, this type of guidance may be especially crucial for students with lower access to important social capital, such as family provided networks and parental career orientation (Galliott et al., 2015).

Worryingly, recent policy changes may make the already patchy availability of career education and guidance worse. Since 2010, some schools (particularly in areas identified as disadvantaged) have received benefit from additional career support. The 'Partnership' component of the Higher Education Participation and Partnership Program (HEPPP) was specifically designed to fund universities to create activities encouraging school students from low socioeconomic backgrounds to aspire to higher education and to build their capacities to access tertiary education (Australian Government Department of Education, 2014a). Unfortunately, however, this part of the program has sustained substantial cuts in funding from the beginning of 2013 (EducationCareer, 2012) and will cease to exist from January 2015 (Australian Government Department of Education, 2014b). As a result, schools with the most disadvantaged and 'career uncertain' students will have no choice but to return to self-

reliance in career guidance provision, further reinforcing the patchwork quality of career education in this country (Patton, 2005), as well as its uneven effects.

There is precedence from which Australian politicians could learn. Recent cuts to university outreach programs in the UK have resulted in dramatic reductions in both the quantity and quality of career support provided to young people (Langley et al., 2014). Programs such as Aimhigher, Connexions, and Education Business Partnerships, which were designed to increase aspirations and improve post-school transitions worked to share the burden of responsibility for the most disadvantaged and vulnerable student groups with schools. This support has now been severely curtailed, returning the work associated with career guidance and counselling to school authorities. Due to a lack of certainty in dealing with this increase in responsibility however, schools now approach career guidance in a vast variety of ways and forms. The result is a 'post-code lottery' where some student groups are disadvantaged by receiving none or less career guidance compared to students in other schools. With the exception of good practice in some schools, the general trend shows a substantial decrease in both the quality and quantity of career education provision (Langley et al., 2014). These problems could and should be avoided here.

More equitable access to career education and guidance however will not solve problems stemming from academic difficulty, a lack of curricular diversity, and student engagement. In previous analyses examining student characteristics and career choice capability (Galliot et al., 2015), we found significant differences between groups in relation to self-reported academic achievement with 'career certain' students more likely to rate themselves in the top third of their year academically and 'career uncertain' students more likely to rate themselves in the bottom third. Our current findings strongly suggest that student career choice capability is also affected by a lack of breadth in the school curriculum, providing empirical support for the need for curricular diversity.

‘Career certain’ students were also significantly more likely to choose electives because they had an interest or talent in the subject or because they needed those subjects for their chosen career. Conversely, a significantly higher number of ‘career uncertain’ students reported not having a sufficient number of elective options and that they made their existing choices at someone else’s recommendation. As a result, they may not be selecting their subjects because of planned study, future career or personal interest *but because they lack better options*. Students in the ‘career uncertain’ group were also more likely to say that they preferred sport/PDHPE and that they did not like science or HSIE. Together, these findings suggest that some young people are not well served by the academic school curriculum; an observation that is not new. Our research suggests however that students struggle to see a future for themselves when they are forced to do subjects that do not interest them and which they do not like. This further suggests that activities aimed at raising aspirations and/or providing career guidance will not address mismatches between student interest or ability and curriculum offerings.

In their recent study, Graham, Van Bergen and Sweller (2015) found that students who do not see relevance of school education to their post-school lives tend to dislike formal schooling and become disengaged. Recognising the strengths and importance of this pattern should lead educational policymakers away from what is arguably an overused individual deficit model and towards the development of initiatives aimed at exploring the ways in which school systems ought to cater for young people who prefer non-academic subjects and who may – with the benefit of greater curriculum diversity and more timely provision of career education – be able to perceive a future career in fields related to the subjects they enjoy.



## **Conclusion**

Career determination of youth in post-GFC times seems to be national priority for many developed economies including Australia. Nevertheless, increasing numbers of young people experience difficulties in their post-school transitions when desirable jobs disappear from the labour market. While governments implement new educational policies in order to address the problem of youth aspirations and post-school transitions, the outcomes of those initiatives are sometimes controversial and often ineffective in achieving set aims and goals. Student career choice is a multistage formative process that relies on personal characteristics and resources, as well as educational experiences. With respect to the contribution of educational experiences to the development of students' career choice capability, this study found that students who were uncertain of their future career had less access to career education opportunities and expressed less satisfaction with the diversity of elective subject choices. They also tended to enjoy school significantly less than 'career certain' students and preferred Sport/PDHPE to science and HSIE subjects. In order to increase successful outcomes in post-school transitions for the most disadvantaged and those students struggling with their career determination, schools need greater curricular diversity, as well as proactive career guidance. To aid career aspiration formation, students and their families should also be provided with the relevant career education information before they start choosing their electives. This will allow more students to be able to make use of educational experiences and career opportunities available to them.

# **Chapter Eight: Survey results**

## **online career guidance –**

### **Paper Five**

#### **Citation:**

Galliot, N. (under review). Online career guidance: does knowledge equate to power for high school students? *Journal of Psychologists and Counsellors in Schools*.

The previous two chapters of Section Three (Chapter Six and Chapter Seven) presented the results of a survey regarding the relationships between students' career un/certainty, and their personal and educational resources, as well as their achievements to date. However, those two Chapters did not cover all the kinds of educational resources provided by recent Australian governments in order to affect students' career determination. The resources discussed in Chapter Seven were school-based. In Chapter Three (Paper One), however, it was argued that modern policymakers provide free access to online career guidance in addition to school-based educational resources.

The following chapter (Chapter Eight) presents the analysis of the survey results concerning the usefulness of online career guidance resources for empowering young people in their career decision-making. It examines whether modern Australian students are aware of and access the online resources targeted toward them. It also analyses the kinds of young people who are more likely to have exposure to online career guidance with respect to their personal and educational backgrounds and whether exposure to those resources makes a difference to their level of career certainty.

## **Online career guidance:**

### **Does knowledge equate to power for high school students?**

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#### **Abstract**

The provision of online career information and guidance is becoming more popular among career counselling practitioners and policymakers targeting the post-school transitions of youth. Internet-based career exploration and guidance systems provide convenience and economy to both individuals confronted with career decision-making as well as those assisting them in the process. However, the usefulness of these systems in improving the career uncertainty of young people is under-researched. This paper presents the results of a cross-sectional survey conducted with high school students in Years 9-12 (N = 706) from 12 schools in New South Wales, Australia. Analyses reveal that: the majority of students are unaware of the online career guidance services targeted towards them; the personal characteristics, school type, and sector of participants differed between websites recalled; and that there are no significant relations between listed web resources and students' career certainty. The paper concludes with implications for career counselling practitioners and policymakers.

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**Key words:** Vocational psychology, Computer-assisted career assessment, Internet-based career guidance, High school students, Australia

### **Online career exploration and guidance**

The provision of online career information and guidance continues to grow in popularity among vocational counsellors and policymakers, primarily due to the multiple benefits associated with such guidance (Harris-Bowisbey & Sampson, 2005). The need for more economic and efficient solutions in the area of career guidance arose after the global financial crisis, which has led to increased budget deficits accompanied by high levels of youth unemployment and a problematic skills mismatch in many developed countries (Biavaschi et al., 2012). Evidently, online self-service career assessment and guidance is viewed as an economic way to provide career guidance (Gati & Asulin-Peretz, 2011). However, the research evaluating the usefulness of such approaches for the young people facing career decision difficulties, and identifying user demographics, is limited and requires extension in its depth and breadth.

Many countries have recognised that private troubles over career choice should, in fact, be dealt with as public matters because they can affect societies as a whole (Watts, 2005). Some governments have started to provide public funding for the development of online career guidance resources in order to equip their citizens as decision-makers with necessary information and support (Barham & Dent, 2004). The Australian Government, for example, has developed a series of self-service information and guidance web resources such as the Myfuture ([www.myfuture.edu.au](http://www.myfuture.edu.au)) and Job Guide ([www.jobguide.thegoodguides.com.au](http://www.jobguide.thegoodguides.com.au)) websites, both of which are primarily targeted towards young people in their post-school transitions to work or further education and training.

Government enthusiasm for the development of web-based career guidance resources is not surprising. Various scholars have outlined the possible benefits of Internet-based career guidance systems for advice-seeking individuals, career counsellors and researchers (Gati, Saka, & Krausz, 2001; Harris-Bowisbey & Sampson, 2005; Kleiman & Gati, 2004). For instance, users can benefit from the convenience of online career guidance resources, with access available via any device at their preferred time and location (Gati & Asulin-Peretz, 2011). The speed offered by modern technologies allows for quick assessment and immediate access to feedback for those who are going through career decision-making (Barak & Cohen, 2002). Individuals are able to store their personal information and career preferences, use improved decision-making algorithms and access information adapted for different levels of users' needs (Harris-Bowisbey & Sampson, 2005). All of these indicate a broad range of possibilities being afforded by online technologies for enthusiastic career option explorers.

Modern online career guidance systems are also able to provide career advisers and counsellors with a comprehensive toolbox for their advisory practice. They can access a wide variety of resources for use with their clients, such as standardised assessments, structured personalised feedback, up-to-date information about education and training options and the labour market (Harris-Bowisbey & Sampson, 2005). Practitioners are also able to further develop as professionals by accessing information about new theoretical approaches, research evidence, training and education opportunities, best practice and moderated forums (Harris-Bowisbey & Sampson, 2005). All of these benefits, in theory, should improve the efficiency and quality of the career guidance provided to young people.

Overall, the benefits of online self-service career guidance are so great that its shortcomings are often neglected or mentioned only briefly. Kleiman and Gati (2004), for example, caution that clients can be overwhelmed by the amount and structure of the information provided. They are also concerned that some users might experience difficulties

interpreting feedback and making judgements about the quality of content presented via different websites. As a result, career uncertain high school students might be negatively affected when using those websites designed for self-service. Indeed, recent research has found that career uncertain young people tend to have low academic and problem-solving abilities (Galliot et al., 2015) – characteristics that may reduce the effectiveness of self-service career guidance approaches.

Considering that one of the main reasons for creating career exploration websites, such as Myfuture, is to provide to students an opportunity to improve their post-school transitions (Galliot & Graham, 2014b), the present paper seeks to investigate whether the dissemination of career information in this format is useful in assisting those young people experiencing difficulties in their career decision-making. In answering this research question, the current paper will first present some background information regarding the existing research in the area of Internet-based career assessment, information provision and guidance, and its effects on career decision-makers. The second part of the paper will discuss the empirical findings of a survey conducted with high school students in Australia's largest state, New South Wales. Lastly, the discussion of the findings will be followed by implications for practitioners and policymakers.

### **Effects of online career guidance on career decision-makers**

Research to date demonstrates that well-designed Internet-based career planning systems can act as reliable self-assessment tools and provide useful related information and guidance to career advice seekers, as well as career counsellors (Dozier, Sampson, Lenz, Peterson, & Reardon, 2014; Sampson & Bloom, 2001). However, some findings suggest that in cases when users are self-selected, it is likely that different groups of individuals will derive varied (and unequal) benefit from such systems. As such, persons with different demographic characteristics are likely to use such systems to differing extents (Kleiman &

Gati, 2004) and some can potentially misuse the system to make inappropriate decisions (Sampson & Lumsden, 2000).

Multiple research findings suggest that Internet-based career assessment tools can be equivalent to paper-and-pencil administered versions of the same tests (Gati & Saka, 2001) and tend to enhance career exploration behaviour of clients (Dozier et al., 2014). Users tend to prefer the computer-based format (Lumsden, Sampson, Reardon, Lenz, & Peterson, 2004) and the vast majority of those who tried using Internet-based career planning systems were willing to recommend them to a friend (Gati, Kleiman, Saka, & Zakai, 2003). When asked about their expectations of online career-related assessments and the associated guidance, users indicate that they prefer relevant, not too complicated or sophisticated content and a certain level of anonymity (Kleiman & Gati, 2004). Furthermore, they frequently expect increased career options and strengthening of occupational knowledge, as well as enhanced self-knowledge (Osborn, Peterson, Sampson Jr, & Reardon, 2003).

Other research also demonstrated high levels of self-focus and self-concern among users of Internet-based career guidance systems. Users tend to indicate that they are most interested in the outcomes of their dialogue with the system rather than with the process (Gati et al., 2003) and that obtaining information about themselves is more difficult than getting external information about careers and pathways. In fact, users expressed that the information about themselves seemed to them to be more subjective and difficult to interpret. Kleiman and Gati (2004) also found that the search for information about the self was one of the main reasons for seeking individual consultation with a career adviser or counsellor in addition to the use of online career guidance. This indicates that while being helpful to clients, online career-related self-assessment tools might not provide full satisfaction to all career advice seekers.

Overall, research shows that unassisted self-service or Internet-based career planning systems have both benefits and shortcomings. As such, on one side, Harris-Bowlsbey and Sampson (2005) identified a range of positive effects arising from the use of career exploration websites, ranging from an increased awareness of the need to plan, through to improved occupational knowledge and career decisiveness. On the other side, Sampson and Lumsden (2000) have highlighted some potential problems with Internet-based career assessments. They argue that inappropriate administration, problems understanding instructions, hasty responses and lack of concentration can all potentially lead to inappropriate decisions on the user's part (Sampson & Lumsden, 2000). This indicates that young people, who do not have limited ability to read, interpret and follow instructions or obtained feedback, can receive little or no benefit from the use of online career guidance services.

In addition, in their meta-analysis of studies regarding help-seeking behaviour, Kleiman and Gati (2004) found that websites with self-help tools such as career planning-related self-assessments tend to attract twice as many females as males, indicating that online career guidance is likely to attract users with particular demographic profiles. Thus, there is potential that different individuals are likely to unevenly derive benefit from online career guidance services due to different levels of exposure to such services. The research investigating the personal characteristics of users attracted to modern career exploration websites for self-service, however, is limited to this one finding.

Overall, there seems to be government overreliance on student agency in the self-exploration of career pathways. The research to date demonstrates that online career guidance, if used appropriately, can potentially be very helpful in assisting their users in career decision-making. Perhaps influenced by benefits like these, some policymakers argue that young people should be responsible for their own future, and should actively use the opportunities provided to them, such as online career guidance, to reach beyond their horizons (Sellar,



2013). Currently, limited budget spending on career education at Australian schools (Career Industry Council of Australia, 2015) and forthcoming budget cuts for such educational activities in 2016 (Jacks, 2015), force young people to exercise self-help or be left without any proper career guidance. Web-based self-service approaches to career exploration and planning, however, may not be the sole solution to the career uncertainty of young people.

A number of researchers evaluating web-based career planning systems suggest that, while self-service may be helpful for some individuals, it is not as effective on its own as it is in combination with individual or group consultations with career advisers or counsellors (Dozier et al., 2014). There may be multiple reasons why some young people find online career guidance services useful for improving their career certainty while others do not, ranging from client exposure to such resources, their personal characteristics, and the quality of the web resources.

The aim of the current paper is to address the three research questions related to the effectiveness of current online career guidance services on Australian high school students. The first question investigates whether high school students are aware of the online career guidance websites targeted towards them and if they access those resources. Knowing that people using self-help and self-service resources are likely to differ from those who are not exercising similar behaviour, the second research question of this paper explores demographic characteristics associated with students who are aware of and access online career guidance resources. Lastly, this study is concerned with the question of whether knowledge and access to these web resources is associated with the career certainty of high school students.

## **Method**

This paper reports findings from a cross-sectional survey that was conducted as part of a sequential phase mixed-method research design (Creswell, 2009) in a larger project

researching high school student career choice capability (for conceptual foundations of the study see Galliot & Graham, 2014). Human research ethics approval was obtained from Macquarie University and the NSW Department of Education and Communities. The survey data was collected via an online questionnaire with 37 questions, designed and administered using Qualtrics software (Qualtrics, 2015) from October through December 2012.

### *Participants*

The survey was conducted with Year 9-12 high school students ( $N = 706$ ) from 12 schools in the largest state of Australia, New South Wales. The schools invited to participate in the research were selected using disproportionate stratified simple random sampling with 8 government and 4 non-government schools in each of the two strata. The larger proportion of government schools was invited in order to reflect the actual split in enrolments between the school sectors, where about 70% of NSW students attend government schools (Australian Bureau of Statistics, 2015). Two of the government schools were academically-selective. Participating schools had different scores on the Index of Community Socio-Educational Advantage scale (ICSEA) (Australian Curriculum Assessment and Reporting Authority, 2012) with seven schools being above and five schools being below the average national score (national average = 1000,  $SD = 100$ ). Table 10 provides a summary of the participants' demographics including school-level and individual-level characteristics.

**Table 10: Demographic characteristics of survey participants.**

Characteristics	Sub-group	N	Valid Percent
School sector	Government	461	65.3
	Non-government	245	34.7
School ICSEA score	800-900 (Mean - 2 Standard Deviations)	70	9.9
	901-1000 (Mean - 1 Standard Deviations)	147	20.8
	1001-1100 (Mean + 1 Standard Deviations)	180	25.3
	1101-1200 (Mean + 2 Standard Deviations)	309	43.5
School type	Selective	202	28.6
	Non-selective	504	71.4
Gender of school students	Co-educational	461	65.3
	Boys	97	13.7
	Girls	148	20.8
Year grouping	9	157	22.2
	10	220	31.2
	11	102	14.4
	12	227	32.2
Participants' gender	Male	251	35.6
	Female	455	64.4

### ***Measures***

#### *Awareness of and access to the career exploration websites*

Participating students were presented with the list of career exploration web resources targeting Australian youth. Each of the items in the list was accompanied by a visual clue (logo) for better recall. Some of these web resources were identified by participants in focus groups conducted prior to the current survey (Galliot & Graham, 2014), while others were found as a result of online research. While there were nine websites presented in the survey,

some have been excluded from the current analysis. This is due to the fact that some web resources were recalled by so few students that these results were not suitable for statistical analysis and, in other cases, because the websites are no longer available online. Thus, the current paper includes analysis based on the following four websites:

- Myfuture ([www.myfuture.edu.au](http://www.myfuture.edu.au))
- Job Guide ([www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au))
- ADF GAP Year ([www.defencejobs.gov.au/ADFGapYear](http://www.defencejobs.gov.au/ADFGapYear))
- Year 12 – what next? ([www.year12whatnext.gov.au](http://www.year12whatnext.gov.au))

Students were asked to click one of the following mutually exclusive options for each of the presented websites:

- No idea about this website
- I know about this website
- I've accessed this website.

#### *Demographic characteristics*

As part of the survey, students were asked to indicate their gender (male or female), the primary language spoken at home and their Year grouping at school (Year 9, 10, 11 or 12). Information about the school-related characteristics of participating students, such as school sector (government or non-government), school ICSEA score and the gender of the school population (co-educational, boys or girls), was obtained through the use of unique survey links provided to schools and their students. As such, each of the 12 participating schools received its own link to the survey, meaning that when a student used a link, school characteristics were recorded against that participant.

#### *Career certainty*

Students' career certainty was assessed by two variables. First they were asked, 'What

would you like to do when you finish school?" The possible responses to this question included 'Get a job', 'Get an apprenticeship', 'Go to TAFE/College', 'Go to University', 'Not sure', 'Nothing' and 'Other', with an open-ended response box for specification. Those respondents who clearly indicated what they were planning to do after finishing school were grouped into a 'career certain' cluster, while the remaining students who answered 'Not sure', 'Nothing' or similar were allocated into a 'career uncertain' group. The validity of this grouping was then tested with a second variable, where students responded on a sliding scale of 0% - 100% to the question 'How much certainty do you have in choosing your future career?' Analysis using an independent-samples *t*-test,  $t(624) = 5.65$ ,  $p < 0.0005$ ,  $d = 0.86$  (a large effect size (Cohen, 1988) provided support for this grouping, as 'career certain' participants were significantly more likely to express certainty in their future careers ( $M = 64.68\%$ ,  $SD = 29.27$ ) than 'career uncertain' students ( $M = 38.73\%$ ,  $SD = 31.14$ ) (Galliot & Graham, 2014a).

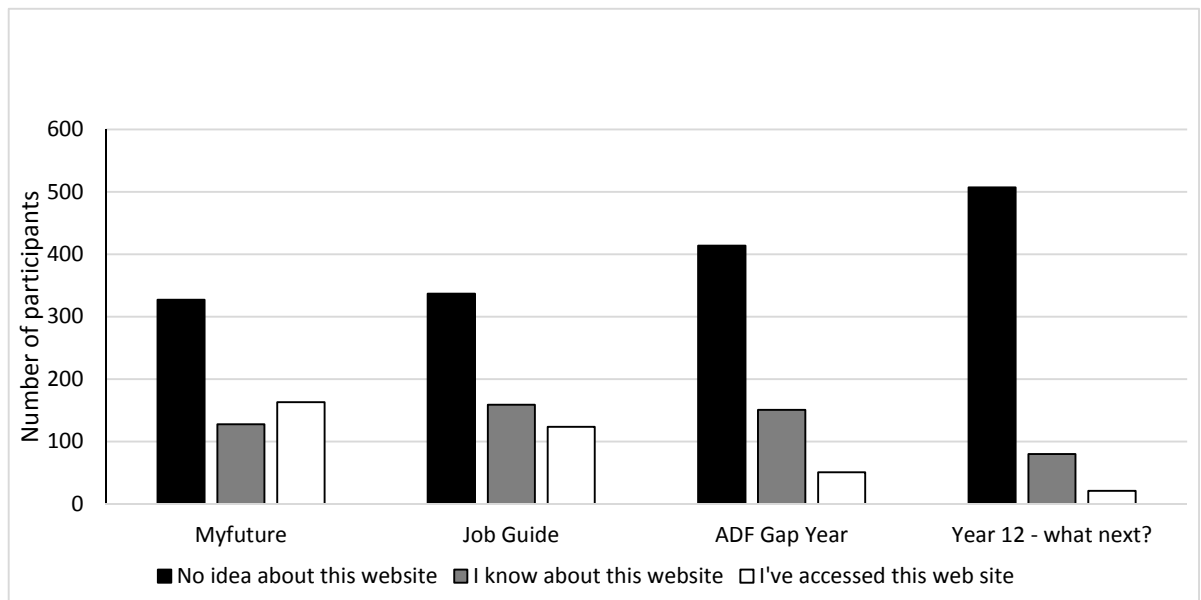
### *Analysis*

Survey data was analysed using IBM SPSS Statistics 22 software (IBM, 2015). Descriptive statistics and inferential tests were performed in order to examine the relationships between knowledge about and access to the career guidance websites, students' demographics and career certainty. As all variables used in the current analyses were categorical, associations between the variables were examined with chi-square tests of independence. Those tests with significant overall chi-square results were followed by Bonferroni adjusted *z*-tests for multiple comparisons of the column proportions, controlling the false discovery rate at  $\alpha = .05$  (Hochberg, 1988). The effect sizes of significant chi-square tests were analysed by Cramér's *V* and accompanied by odds ratios.

## Results

### *Career exploration websites: knowledge and access*

Figure 11 illustrates that the majority of survey participants indicated that they had ‘no idea about’ the online career exploration and guidance websites Myfuture (53%), Job Guide (54%), ADF Gap Year (67%) and Year 12 – what next? (83%). Some of these websites, however, were recalled more often than others with more awareness (without access) of the Job Guide (26%), ADF Gap Year (25%) and Myfuture (21%) and the highest access levels being recalled for the Myfuture (26%) and Job Guide (20%) websites (See Figure 11).



**Figure 11** *Awareness of and access to online career guidance websites.*

### *Students' demographics and exposure to online career guidance*

In order to discover which types of students were being exposed to the listed websites, the relationships between students' demographics and their answers to questions about knowledge and access to the websites were analysed.

*Individual characteristics variables*

Table 11 presents the direction of all statistically significant relationships that were found between students' student-related variables and whether they were aware of and accessed web resources listed in the survey. Empty cells mean that there were no significant relationships between the variables tested.

**Table 11: Statistically significant\* relationships between career exploration of online resources and students' student-level demographics.**

	Career exploration and guidance web resources (% of total sample)							
	Myfuture		Job Guide		ADF Gap Year		Year 12 – what next?	
	21% aware	26% accessed	26% aware	20% accessed	25% aware	8% accessed	25% aware	4% accessed
<b>Student-related variables</b>								
<b>Gender</b> (Male/Female)				More females than males  (14.6% males, 22.9% females) Cramér's V .139 small effect size		More males than females  (12.8% males, 5.8% females) Cramér's V .128 small effect size	More females than males  (7.9% males, 16.0% females) Cramér's V .116 small effect size	
<b>Home language</b> (English only, English and other & Other than English)			More English only speakers than students in 'Other than English' (29.1% Eng., 23.2% Eng. & other & 16.1% Other ) Cramér's V .095 small effect size					

\* Significant at  $p < .05$ .  $\chi^2$  non-significant if cells are blank.



Female students were more likely to access the Job Guide website and know about the ‘Year 12 – what next?’ site. A higher proportion of male students, however, reported accessing the ADF Gap Year web resource. Based on the odds ratio, girls were 1.74 times more likely to access the Job Guide and 2.22 times more probable to know about the ‘Year 12 – what next?’ website. The odds (or risk) of accessing the ADF Gap Year were 2.40 times higher for boys than girls.

A higher proportion of students speaking English only at home than a language other than English knew about the Job Guide. Based on the odds ratio, the odds (or risk) of knowing about the Job Guide were 2.14 times higher for students who spoke English only at home than those who spoke a language other than English.

#### *School-related variables*

Table 12 provides the direction of all statistically significant relationships that were found between students’ school-related variables and whether the participants were aware of and accessed listed web resources. The empty cells represent the absence of a significant relationship between the variables tested.

**Table 12: Statistically significant\* relationships between career exploration of online resources and students' school-level demographics.**

School-related variables	Career exploration and guidance web resources (% of total sample)							
	Myfuture		Job Guide		ADF Gap Year		Year 12 – what next?	
	21% aware	26% accessed	26% aware	20% accessed	25% aware	8% accessed	25% aware	4% accessed
<b>School sector</b> (Government/Non-government)		More in non-gov. than in gov. (22.3% gov., 34.0% non-gov.) Cramér's V .126 medium effect size		More in non-gov. than in gov. (15.6% gov., 28.4% non-gov.) Cramér's V .159 medium effect size	More in non-gov. than in gov. (18.9% gov., 35.0% non-gov.) Cramér's V .201 medium effect size	More in gov. than in non-gov. (10.7% gov., 3.7% non-gov.) Cramér's V .201 medium effect size		
<b>School's ICSEA</b> (800-900, 901-1000, 1001-1100 & 1101-1200 stratum)		More in ICSEA 1001-1100 stratum than in other strata (10.5% 800-900, 19.2% 901-1000, 43.6% 1001-1100, 23.3% 1101-1200) Cramér's V .184 medium effect size						
<b>Year grouping</b> (Years 9, 10, 11 & 12)		Less in Year 9 than in other Year groupings (5.3% Year 9, 34.6% Year 10, 28.4% Year 11, 31.4% Year 12) Cramér's V .210 medium effect size	Less in Year 9 than in other Year groupings (10.7% Year 9, 25.5% Year 10, 36.5% Year 11, 30.2% Year 12) Cramér's V .202 medium effect size	Less in Year 9 than in other Year groupings (9.9% Year 9, 19.1% Year 10, 25.0% Year 11, 24.9% Year 12) Cramér's V .202 medium effect size				

\* Significant at  $p < .05$ .  $\chi^2$  non-significant if cells are blank.

Students of non-government schools were more likely to access the Myfuture and Job Guide websites and be aware of the ADF Gap Year web resource. Government school students, however, were more likely to access the ADF Gap Year. Based on the odds ratio, the odds (or risk) of accessing the Myfuture and Job Guide websites and being aware of the ADF Gap Year site were 1.79, 2.15 and 2.32 times higher for students in non-government schools. Students in government schools, however, were 3.08 times more likely to access the ADF Gap Year website.

Being from a school within the 1001-1100 ICSEA stratum was significantly associated with reporting access to the Myfuture website in comparison to other student groups. The odds (or risk) of accessing the Myfuture website was 6.57 times higher for students in schools with ICSEA 1001-1100 when compared to their peers at schools with ICSEA 800-900, 3.25 times higher in comparison with participants at schools within ICSEA 901-1000 and 2.55 times higher than young people at schools within the 1101-1200 stratum.

Year 9 participants were less likely to know about and access the Job Guide and the Myfuture websites. Based on the odds ratio, Year 9 students were 4 to 5 times less likely to access Myfuture and 3 to 6 times less likely to have any exposure to the Job Guide.

### ***Online career guidance and its effect on career certainty***

The relationship between students' 'career certainty' status and whether they knew about and accessed online career exploration websites was examined with cross-tabulations and chi-square tests, however, there were no significant associations found between these variables (all  $p > .05$ ).

## **Discussion**

Modern government initiatives eagerly include online technologies in the provision of social services to their citizens. Individuals, as consumers of government services, are expected to exercise their agency in actively identifying problems, searching and evaluating

available information, as well as selecting and implementing solutions to their problems. The use of online career exploration and guidance web resources, as one example of the provision of such services, is justified by the tremendous economy of human and financial resources in state budget spending. This study, however, shows that the online career guidance currently provided to young people facing career decision-making and post-school transitions lacks effectiveness in terms of achieving the desired outcome of improving youth career certainty. This paper problematises the reliance on self-service online career guidance in targeting career uncertain young people from the three perspectives, namely (1) insufficiency of youth's awareness of resources targeted towards them, (2) the inability of current websites to evenly reach of a variety of young people and (3) the ineffectiveness of such web resources in improving the career certainty of high school students.

### ***Youth's unawareness of online career guidance***

The findings of this study raise questions about the current emphasis on attributing responsibility for accessing self-help and improving career outcomes on young people themselves. Currently, there appears to be a strong movement from the provision of career guidance at school to reliance on a self-service model of career decision-making (Jacks, 2015), linked to the use of free access online career guidance resources. The data in relation to awareness of online career exploration services available for self-use suggest, however, that the vast majority of Year 9-12 school students had 'no idea' about the existence of such resources. Logically, if someone lacks knowledge about a particular resource, she is not likely to use it in any way and can hardly be blamed for failing to utilise it. Admittedly, lack of knowledge does not fully exculpate individuals. Even so, we ought to be more forgiving of younger citizens, such as adolescents, due to their developing cognitive skills and limited life experience. The suggestion here is to create an awareness of online career guidance services among young people before expecting them to use such resources.

Raising awareness of online career guidance resources, however, might drastically increase the cost of this alternative to face-to-face career education provision through schools. Based on learning and stimulus-reaction theories (Blythe 2013; Pavlov, 2003), repetitive exposure is a necessary key for successful learning and subsequent recall of the information to occur. As a result of their meta-analysis on effective frequency in advertising, Schmidt and Eisend (2015) recommend ten or more exposures to a message in order to maximise enhancement of recipients' attitude and recall of information. While less exposure may be required when students see the importance of the message, such as the importance of thinking about one's future career, there is no guarantee that every high school student will place a high value on their career decision-making process without prior scaffolding. In any case, considering the potential cost of extensive promotion of the career websites to the target audience, online career guidance may not be as cost effective as is often thought, calling into question the original cost-benefit analysis behind the use of such resources.

### ***Unevenness in career websites reach***

Given that the provision of free access online career guidance is supposed to result in the fair distribution of career-related information to all young people, I was particularly interested in whether there were any differences between those students who recalled being exposed to different career websites and those who did not. Analysis of the characteristics of those students who indicated exposure to the listed web resources showed significant differences in career websites' reach. This suggested that the listed websites varied in their appeal to different student groups.

Exploration of the possibilities regarding differences in appeal showed that both website content and students' personal characteristics can play role in the way that young people perceive the information. According to Montoya-Weiss, Voss and Grewal's (2003) research, the nature of the information and the way in which it is presented on the websites,

can all affect the kinds of young people attracted to them, the levels of student engagement with those resources and their subsequent recall. As such, while male students reported more frequent access of the job oriented 'ADF Gap Year' web resource, female students tended to access more general career websites such as Job Guide and 'Year 12 – what next?' In relation to differences in levels of engagement, the results of this study correlate with previous research findings showing that females are more likely than their male counterparts to engage with the use of self-help tools (such as general career exploration websites) in their career decision-making (Kleiman & Gati, 2004).

Apart from effects of gender, cultural background was also found to have a significant association with exposure to one of the listed career web resources. Analysis of the home language variable, as an indicator of cultural heritage, showed that students speaking a language other than English at home reported less awareness of Job Guide in comparison with those speaking English only. Having a language other than English language spoken at home, apart from being a possible barrier to family members accessing and comprehending information on Australian career-related websites, can also be a sign of cultural differences in information sensing and perception (Jandt, 2015). For example, while it might be very useful to a person from Western culture that information on the Job Guide is organised into analytic-oriented step-by-step instructions focusing on objects (i.e. careers) and their attributes, it might not be as helpful or logical for someone from another culture requiring greater contextualisation (Nisbett & Miyamoto, 2005).

The associations between students' personal characteristics and their levels of exposure to career exploration websites suggest that current features and functions of these online resources are not appealing evenly across student demographics. Further research delving into the attitudes and perceptions of a variety of student groups in regard to existing career websites might offer some ideas for improvement. Interestingly, however, while

personal characteristics had significant associations with exposure to websites with small effect sizes represented by Cramér's V (Table 11), all of the analysed school-level variables showed to have even greater associations as indicated by their medium effect sizes of relationships with exposure to websites (Table 12).

In terms of school-related variables, students exposed to the career guidance resources tended to be from non-government schools and from within the 1001-1100 ICSEA score. The only instance where a higher proportion of students from government schools were observed was in reported access of the ADF Gap Year web resource. In addition, younger students in Year 9 were less likely to be exposed to the most popular career exploration websites (Myfuture and Job Guide) in comparison to Year 10-12. All of this suggests that existing career exploration websites have quite selective audiences in relation to school-level students' characteristics and information distributed through these web resources does not disperse evenly across various student groups.

Currently, most Australian schools that provide career education are doing it in Year 10 and this can explain the significantly higher proportions of Year 9 students in the current study not being aware of online career exploration resources. Finishing Year 10, however, does not guarantee that students will receive information about available career guidance resources. Previous research shows that career guidance in NSW is often very patchy, with individual schools and career advisers making their own individual decisions regarding the content and amount of time spent on career education sessions with students (Galliot & Graham, 2014a, 2014b; Galliot & Graham, 2015; Patton, 2005). As a result, not all career advisers will choose to expose students to, or even inform them about online career exploration and guidance services.

The evidence of inconsistent reach of career guidance resources to high school students is evident in recent research findings, both in Australia and also overseas. Mission

Australia's Youth Survey 2014 (2015), for example, found that students from high socio-economic areas, especially from major cities, are more likely to search for help and/or support online in comparison with less-advantaged individuals. As such, more advantaged students are more likely to use career exploration websites. The research of Langley, Hooley and Bertuchi (2014) from the UK, compares career advice distribution with 'postcode lottery', where recent changes in career guidance provision arrangements lead to extreme inequalities in the delivery of career guidance services to young people. Combining these findings suggests that, with the forthcoming career education budget cuts in Australia, the most disadvantaged youth who tend to rely more on school based career counselling are going to be hit the hardest.

### *Ineffectiveness of online career guidance*

The last, although very important, finding in this paper is related to the ineffectiveness of online career guidance in improving the career certainty of young people. The findings of this study showed no significant relationships between exposure to career exploration websites and the career certainty of young people. Thus, apart from lack of knowledge about these websites and students' personal perceptions of the various kinds of information, the problem with reliance on online career guidance is that it does not have same effect as face-to-face career counselling in improving career certainty. While online career guidance was not found to improve career certainty of students, I am not in any way advocating its removal at all. In fact, I agree that it is a great way to make career education more efficient. What I do suggest, however, is that rather than diminish the human nature of career counselling, online career guidance can and should be incorporated to enhance the practices of school-based career educators.



## **Conclusion and recommendations**

Career guidance theories and policies targeting the post-school transitions of young people often rely on human agency in problem identification, information searches, the evaluation of alternative solutions and making rational choices (Perry, Dauwalder, & Bonnett, 2009). This study demonstrates, however, that reliance on the agency of young people does not always provide fruitful results. Bright (2007) suggests that individuals in career decision-making should not be considered to be rationally seeking information, weighing their career options and making choices in isolation from emotional distractions. Young people in a process of career decision-making are affected by a range of personal and environmental factors (W. B. Walsh & Savickas, 2005), which can affect their rationality in decision-making and the extent of readiness to act as their own agents of change. This is particularly true when referring to teenagers, who often have an extra need for guidance, even though they may not realise it.

Thus, in order to increase the usefulness of online career guidance resources for young people experiencing career decision-making difficulties, several initiatives can be implemented by educational policymakers and career advice practitioners. First of all, the developers of the career exploration and guidance websites should continuously provide up-to-date information about the range of existing careers and pathways in an accessible, usable and culturally appropriate manner for different student groups. Secondly, as was discussed at the beginning of this paper, online career guidance, while greatly satisfying the need for information, is likely to be more effective when used in combination with face-to-face counselling (Gati et al., 2001). Thirdly, online career exploration and guidance tools and services targeted towards high school students should be promoted directly to the target audience (including students and their parents and guardians) through schools and, if possible, through mass and social media channels relevant to the audience. Lastly, students should be

presented with opportunities to access and explore online career information and guidance resources through schools or government-provided services. It is especially relevant for those young people who have limited family resources and cultural capital, restricting opportunities to access online career services outside school hours.

## **SECTION THREE: SUMMARY**

Section Three, which includes Chapter Six (Paper Three), Chapter Seven (Paper Four) and Chapter Eight (Paper Five), provided the main findings of the survey conducted with students attending Years 9-12 (N=706) from 12 high schools in New South Wales, Australia, with the aim of investigating their career choice capability. The findings revealed significant differences in participants' personal and educational resources, both of which affect the career choice capability of young people.

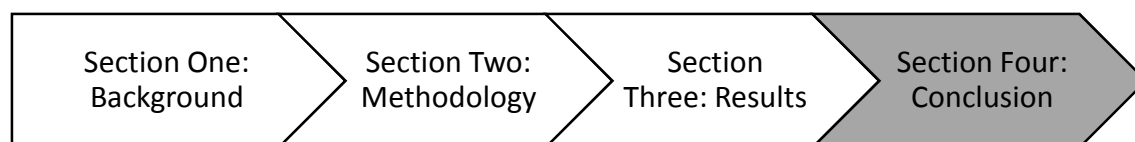
Chapter Six reported that career uncertain students tended to be from families where parents were working in occupations associated with low socioeconomic status and who speak English at home. These students self-evaluated their academic, problem-solving and goal orientation abilities lower than their career certain peers. All of the variables significantly associated with career uncertainty suggested that the effects of the socio-cultural experiences of young people play a greater role in their career determination than their biological characteristics, such as age and gender.

Chapter Seven revealed that career uncertain students, apart from sharing some personal characteristics, have different educational experiences than career certain students. The analysis presented in this chapter demonstrated that career uncertain students were more likely to be from non-selective schools, report lack of career education sessions, and have limited elective subject choices. They were more likely to choose elective subjects not based on their own interests, but because of somebody else's recommendation. They tended not to enjoy 'Science and Human Society and its Environment' subject areas, and favoured Sport/PE more than their career certain counterparts. In addition, they liked school significantly less than career certain students.

Chapter Eight presented findings regarding the usefulness of online career guidance as an alternative resource to school-based career education. The data analysis showed, first of

all, that the majority of the students were unaware of the online self-service career exploration web resources targeted toward them. Secondly, the analysis of personal and educational characteristics of students exposed to the web resources suggested that those websites have uneven reach and the information distributed through them was not spread evenly between various student groups. The factors contributing to this are likely to be a combination of the different appeals of the web content, students' personal interests and characteristics, and deliberate exposure to and promotion of the web resources to various groups of young people. Lastly, despite some student groups being exposed to the career websites, none of the analysed web resources were significantly associated with career certainty.

Together, the findings of Section Three demonstrated that career uncertain students are affected by the variety of factors. The following section (Section Four) will explore the relationships between these factors, discuss the meanings of the findings for the field, and provide recommendations for researchers and policymakers.



## **SECTION FOUR: CONCLUSION**

The previous sections of this thesis discussed the theoretical and conceptual foundations of career choice capability, provided the rationale and justification for a mixed-methods research approach, and presented results from the two phases of the project. Findings indicated that there are significant differences between career certain and uncertain students with respect to their personal and educational resources, which may affect their ability to convert available resources into career opportunities.

The following section (Section Four) revisits the purpose and objectives of the current investigation and brings together the theory discussed at the beginning of this thesis (Section One) and empirical findings presented in the ‘Results’ section (Section Three). The concluding Chapter Nine, which is the only chapter in Section Four, reflects on the questions underpinning this study and thesis, as well as the assumptions behind the policies targeting youth career determination. With regard to final outcomes, it details the implications for research and practice, as well as provides recommendations for further investigation.

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## **Chapter Nine: Conclusion**

### **Agentic career choice of high school students: Theory and practical reality**

#### **Introduction**

This chapter provides a conclusion to the study as a whole, reflecting on the problem and research objectives it started with, how the process of investigation unfolded, and the main findings and implications for stakeholders. As this thesis is written in a thesis-by-publication format, it contains several chapters that have been published either as journal articles or in conference proceedings. Some of these papers are conceptual in nature and others detail empirical results. The purpose of this concluding thesis chapter is to pull the threads of the study together, as well as describe the final outcomes of the project.

The chapter starts by revisiting the main problem and purpose of the thesis and the reasons for conducting this study. It then provides an outline of the conceptual framework guiding this study and an overview of the findings. The discussion of the findings is followed by some final reflections on the study outcomes. In returning to the aims, conceptual framework and original research questions, the chapter discusses the meaning of these results in relation to current educational policies targeting youth career determination.

The chapter concludes by acknowledging the limitations of the research, looking mainly at the generalisability of the survey results to a larger population and discusses sampling and non-sampling issues. It provides implications for the research community and recommendations for educational policymakers, school authorities and career advisors. Lastly, the chapter identifies areas for further investigation, as part of the ongoing research cycle.

## **Revisited research purpose**

Difficulties associated with the career development and post-school transitions of young people have been hotly debated in recent years. One of the main reasons for such high interest in the topic of youth career determination is its political aspect. High rates of youth unemployment in developed countries around the world have encouraged governments to focus their attention on young people who are at risk of not contributing or otherwise burdening the economy (Tomlinson, 2012). Numerous investigations have attempted to identify the factors associated with the career uncertainty of young people (Jung, 2009) and a number of government-funded initiatives have targeted those individuals experiencing difficulties in post-school transitions (Hutchinson & Kettlewell, 2015). However, the problem of youth unemployment continues unabated, leading some to suggest that lack of economic growth and the availability of jobs is the root cause, rather than structural shifts in the economy and young people's career aspirations (Borland, 2014). Nonetheless, the topic of career indecision/indecisiveness appears to be gaining in research popularity (Watson, Nota & McMahon, 2015; Hutchinson & Kettlewell, 2015; Galliot, 2015), although this issue is conceptualised in different ways by researchers in different disciplines.

Research to date has indicated that career indecision or occupational uncertainty is due to multiple and often interrelated factors (Di Fabio et al., 2013). Factors range from lack of personal readiness and information unavailability or inconsistency (Gati et al., 1996) to an individual's uncertainty about the outcomes of various career choices and/or conflict with personal values (Germeijs & De Boeck, 2003). Most investigations focus on personal factors, while some consider environmental influences. Few attempt to consider both. Despite numerous investigations, however, there are many unanswered questions as to why some young people are able to make their career choice despite disadvantaging conditions, whilst others experience significant difficulties.

## **The problem from the perspective of governments**

While academics (Gutman & Schoon, 2014; Kao & Liu, 2012) continue to develop new theories about the nature of the difficulties that some young people experience in their career determination, the place of this issue in the hierarchy of political debate, and the number and type of perspectives from which this problem is analysed and treated, also seems to change over time. Raco (2009) argues that the previously popular ‘politics of expectations’, where a state is considered to be responsible for redistribution, now tends to be substituted with a ‘politics of aspiration’ by which consumer-citizens are considered to be the drivers of social mobility and economic productivity. Thus, the main responsibility for ‘fixing’ career uncertainty and problems associated with post-school transitions is placed on citizens themselves.

Common to many OECD countries are policies that attempt to raise youth aspirations to higher levels of educational and occupational attainments (Burke, 2012; Gale, 2015; Gale & Parker, 2015; Spohrer, 2011) in order to make them more employable in modern economies. These policies tend to position individuals who are struggling with their career determination as somehow deficient. For example, Sellar (2013) argues that:

People who do not act in ways that demonstrate their pursuit of these aspirations are perceived to lack the information required to appreciate the benefits of self-capitalising behaviour, or, more simplistically, to be lazy and recalcitrant citizen-consumers who hold anachronous expectations of state provision: ‘bludgers’ who suffer from a poverty of desire that is often considered even more dire than material poverty. (p. 248)



Overall, career uncertain young people are perceived as having ‘low’ (or no) aspirations, as lacking motivation to seek a job or upskill themselves through education and training, and as being over-reliant on government benefits.

To deal with the issue (as it is perceived), governments aim to ‘help people address their private troubles’ (Gale, 2015, p. 260) by tightening social welfare, disseminating career-related information, raising youth aspirations, and providing them with what seem to be ‘equal’ educational opportunities. The Australian Government, for example, has created a number of initiatives to assist individuals in their career determination. Those initiatives aim to:

- (i) make access to the unemployment benefits for youth more difficult (Galliot & Graham, 2015) ,
- (ii) provide free access to online career information and guidance (Galliot & Graham, 2014b),
- (iii) encourage disadvantaged individuals to enrol into higher education through university outreach programs (HEPPP, 2014), and
- (iv) increase the number of years of compulsory education for young people in all Australian states and territories (Reid & Young, 2012).

As such, the government provides resources and encouragement to young people but also expects them to take the responsibility for helping themselves. Antonucci and Hamilton (2014) caution, however, that ‘social interventions have the risk of reproducing, rather than limiting, patterns of exclusion if they do not challenge old structural patterns of inequality’ (p. 257). Thus, the beginning of this thesis provided critical analysis of the listed policies and questioned government’s expectations of career uncertain young people.

The first published paper (Chapter Three) of the present study criticises the assumptions underpinning government initiatives targeting youths' post-school transition. First of all, policies such as those tightening access to social welfare for individuals experiencing difficulties in career decision-making assume that career choice (in)capability is a problem of individual agency. This assumption neglects that personal agency is a formative construct that is shaped by both individual and environmental factors (Bandura, 1991, 2001). As such, decision-making about educational and occupational targets requires young people to have prior exposure to a variety of achievable career options, belief in the possibility of realising their considered career, knowledge and understanding of the requirements for that career, as well as the skills and abilities to engage in the further education or training required. Thus, forcing somebody without at least one of the listed requirements to make their educational or occupational choice by denying welfare support might not only be ineffective, but morally questionable.

Secondly, policies aimed at providing online career guidance in order to empower high school students to act as adult consumers in an unequal job market assume that young people have the ability to understand and make effective use of the provided online resources. Considering there is no compulsory requirement for schools to provide exposure and education in regard to the use of online career guidance resources, it seems overly optimistic to believe that individuals experiencing difficulties in their career decision-making would alone come up with the idea to access websites such as [myfuture.edu.au](http://myfuture.edu.au). Some students might get to know about it from search engines, word-of-mouth or a teacher, if that teacher chooses to introduce students to such websites and their school provides the appropriate amount of resources for such exploration. Those who are unaware of the existence of online career information and guidance websites, however, are unlikely to look for them.

Thirdly, the encouragement of upper secondary school students from disadvantaged and underrepresented backgrounds to raise their aspirations and enrol in higher education assumes that students' agency is simply a question of personal will. This assumption ignores the various reasons that some individuals do not pursue higher education. Research indicates that the patterns of decision-making about educational and occupational achievements and associated behaviours tend to form well before the final years of schooling (Gore et al., 2015); the years most commonly targeted by the majority of university outreach programs. This means that those who were not preparing themselves for tertiary education might not consider it an achievable or realistic option for them, even if university entry is made easier for them.

Lastly, forcing young people – who do not see the relevance of formal schooling – to stay in formal schooling for even longer, assumes that the school education and career advice services provided at different schools and classrooms are of equal quality, distribution and benefit to diverse student groups. This is despite well-established theories of social reproduction and the contribution of schools to social stratification, where it is not only highlighted that students are bringing different family values and traditions to their schools, but that schools also tend to provide education with a different focus for the various student groups.

These were the starting points for this doctoral research. The following section will revisit the conceptual framework and the way it helped to provide a different lens to examine the reasons behind career uncertainty of some high school students.

### **Amartya Sen: A different analytical perspective**

Drawing on the work of political philosopher Amartya Sen (Sen, 1992, 1999, 2005), this doctoral study has sought to understand:

- (i) Which high school students are ready, and which are not yet ready, to envision their desired future career choice?
- (ii) What characterises those students who are ‘uncertain’ in their career determination?
- (iii) Are there any gaps in the personal and/or educational resources available to ‘career uncertain’ students?
- (iv) Do patterns associated with ‘career uncertainty’ highlight any particular educational practices and policies that might benefit from reform?

To engage with these questions, a conceptual framework based on Sen’s theory of human capability was developed (Chapter Three, Paper One).

Amartya Sen (1992) made a major contribution to political philosophy, which before him was dominated by Rawls’ redistributive theory of justice (Rawls, 1971). Sen’s input was to show that redistribution of resources did not go far enough in equalising opportunities of individuals, because people are not equal in their ability to make use of the resources that they receive. According to Sen’s theory of human capability (1992), the distribution of resources, such as free access to online career guidance or equal number of compulsory years of schooling, does not guarantee achievements, such as informed and agentive career choice, in which individuals are able to act for and on behalf of themselves. Sen considers resources to be means to ends, however, a person’s *ability to convert* these resources into desirable ends, such as career choices, determines the final outcome.

For this reason, Sen (1992) argues that the focus needs to shift from the counting of resources (such as years of education and the amount of career information distributed) to differences in the *conversion* of resources into real opportunities. The conversion of resources into an ability to envision a desired career requires a level of capability, where *capability* refers to a person’s freedom to choose from a set of valuable opportunities and outcomes. In a

way, the process of making a choice is regarded by Sen as more important than the actual choice, because the process governs the outcome (Biggeri & Santi, 2012).

More specifically, the career choice capability of high school students is underpinned by the educational resources made available to individuals and their personal resources, which together contribute to their ability to convert *means* into *ends*. Thus, if there are differences in the provision of these two types of resources (educational or personal), there are likely to be differences in capabilities, given their formative nature. Modern political discourses concerning career choice, however, tend to present the situation such that educational resources are provided for the taking (and using), disregarding differences in the abilities of young people, as well as investment in the development of such abilities, particularly among youth of disadvantaged backgrounds.

While Sen's distinction between circumstances and the ability to convert available resources provided the first challenge to the logic underpinning the government policies targeting youth post-school transitions, the examination of the assumption behind the *equality* of educational resources in those policies served as a second challenge. In Sen's (1992) theory of human capability, education is often described as a capability enhancer. Education provided through schools, however, does not necessarily empower all students. In post-industrial societies, for example, it is argued that schooling can contribute to the reproduction of social inequalities and may restrain rather than unleash individuals' potential (Nolan & Anyon, 2004). Teachers tend to adapt to what they believe are students' needs and, despite having the same curriculum and standards of teaching and assessment, it is quite possible that different students receive different educational experiences (Apple & King, 1977). Thus, in order to analyse the resources available to individuals for conversion into desirable achievements, it is important to investigate both interrelated components; that is, personal *and* educational resources. In other words, both the capabilities that young people bring to

schools, and the formative experiences that they have whilst there, are important for student career preference formation.

To analyse an individual's capability to achieve and to evaluate in/equalities in capabilities, Sen (2005) recommends the measurement of observable data regarding current achievements. This, he believes, will allow researchers to obtain a partial but significant view on the freedoms enjoyed by individuals. Useful for this purpose is Sen's concept of 'functionings', which underpins the notion of achievements. Functionings, as described by Sen (1992), are the activities and states being experienced by a person or, in other words, it is what the person can *be and do*, such as being from a particular socioeconomic background and participating in career education sessions at school.

In order to operationalise these concepts for the purposes of investigating high school students' capability to make agentic career choices, the current study obtained observable data related to (i) the personal and educational resources available to high school students, and (ii) their current functionings affecting ability to convert those resources into desirable career choice options. Following Alkire's (2005) recommendations, analysis of both objective as well as subjective measures of the current functionings of students was conducted to obtain a partial view of the freedoms enjoyed by individuals (Sen, 1995).

Many of the current functionings of students are quite difficult to separate from the resources available to those young people. This is due to strong ties between the two. In some cases, if the person has access to a resource, he or she can then do something related to that resource. For example, if a school provides resources for organised work experience for students, then young people can gain this experience as part of their functioning. In other cases, it can be said that once a person achieves a functioning, this can then become a resource to that individual. For example, achieving a certain level of language proficiency or learning a new skill during work experience can later become a useful personal resource to

draw on when choosing a future career. Thus, due to the strong connections between resources and functionings, the results of the present study were analysed and reported according to the type of resources available to individuals: personal (Paper Three) and/or educational (Papers Four and Five). Equipped with these results, the following section reflects back on the four main questions of this study.

### **Addressing philosophical research questions through empirical findings**

The theoretical foundation described above underpinned the development of a sequential phase mixed-methods study that aimed to collect empirical data from high school students attending Years 9 to 12 in a selection of government and non-government schools in the Australian state of New South Wales. The study design involved two phases, which included five focus groups with 23 students attending Year 10 in five schools in phase one, and a survey of 706 students attending Years 9-12 in 12 schools in phase two. The empirical findings presented earlier in this thesis in three separate papers (Three, Four and Five) provided further grounds for a discussion of students' career choice capability and speak towards the research questions guiding this study. The following section will provide my concluding reflections on these questions.

#### ***Research Question One: Which high school students are ready, and which are not yet ready, to envision their desired future career choice?***

The main topic of this study, agentic career choice, requires that individuals be ready to envision their desired career option(s). The first question of this study required the separation of two groups of students, different in their career choice readiness. This separation allowed for statistical analysis of the differences between the groups in terms of their personal and educational resources. The survey asked participating students whether they could indicate what they are thinking of doing after finishing school. Those who did not indicate

anything rather than ‘nothing’ or ‘not sure’ were allocated to the ‘career uncertain’ group. The grouping of students to career certain and uncertain served as a proxy for career choice capability. While the ‘career (un)certainty’ construct does not indicate the actual state of students’ career choice after finishing school (i.e. being career (un)decided), it nevertheless shows participants’ level of (un)certainty in their career-decision making at the moment of survey completion. Thus, the survey data allows for discrimination between young people who have not formed goals for post-school completion and those who were not ready to express them at the time when the study was conducted.

The focus group discussions, conducted in the first phase of the study, have highlighted that career uncertainty is likely to be a continuum rather than more precise ‘yes’ or ‘no’ variable. In particular, one of the participants of the focus group discussions, while initially saying that he was not sure what he will do after finishing school, in further discussions indicated that he was considering several options and was not sure which one of them he will pursue. Knowing that, the survey in the second phase of the study incorporated an additional question asking students to specify on a zero to hundred percent scale how certain they were in their future career choice.

Students’ responses to both questions allowed, first, the application of criteria to enable the grouping of ‘career certain’ and ‘uncertain’ students and, second, testing of the accuracy of that grouping. The 44 participants of the survey who were initially labelled as ‘career uncertain’ were indeed found to be significantly less certain in their career choice in the analysis of their responses to the second question asking them to rate their level of certainty.



***Research Question Two: What characterises those students who are ‘uncertain’ in their career determination?***

Previous research findings (described in Chapter 2 ‘Literature Review’) have identified a number of factors associated with young people experiencing difficulties in their post-school transitions. Those included personal and environmental backgrounds such as being from a single parent family, lower socioeconomic status, demonstrating lower academic achievement and satisfaction with school, living in non-metropolitan areas, attending government schools, and/or being Indigenous (Curtis & McMillan, 2008; Sikora & Saha, 2011). These characteristics, however, are not linked to a person’s educational and occupational outcomes in a direct way. Not all government school students, for example, necessarily have difficulties in their post-school transitions.

Having some advantageous characteristics also does not seem to be linked to direct outcomes. Some of the researchers highlighted, for example, that advantages such as being a high academic achiever do not necessarily translate into the expected educational and occupational outcomes (Sikora & Saha, 2011). Conversely, being a low academic achiever can be overcome by a motivated individual equipped with strategic planning skills (Thomson & Hillman, 2010). The reasons for some young people being more likely to exercise their personal agency in their career goal setting and strategic planning had not been thoroughly analysed and discussed prior to this study.

Drawing on Sen’s (1995) theory of human capability, this thesis developed a conceptual framework capable of taking account of the contributions made by personal characteristics and educational contributions to career choice capability. This study indicated that both types of resources play a role in the development of agentive career choice. As will be explained in the following sub-section, the results of this study suggest that limitations of ‘career uncertain’ students’ resources (personal and educational) tend to lead to limited

personal agency in the conversion of available resources. This, in turn, limits the abilities of young people to make use of the extra resources made available to them during their post-school transitions.

***Research Question Three: Are there any gaps in the personal and/or educational resources available to 'career uncertain' students?***

*Personal resources (backgrounds and characteristics)*

Among family backgrounds, home language and socio-economic status (SES, measured by parental occupation) appeared to be the most significant predictors of career uncertainty. The first significant finding (that career uncertain students are more likely to be from English-speaking households) suggests that there are differences between various cultures, which may affect career certainty. Previous research literature demonstrated that different cultures might hold different values and attitudes attached to academic achievement and the importance of career determination. Chinese students, for example, are known to do more academic work outside of school and develop better academic self-discipline in comparison to Anglo-Australian students (Noble & Watkins, 2009), all of which can be helpful for school learning. In the current study, Chinese-speaking students were also found to be more than three times less likely to be career uncertain in comparison to those from English-only speaking families. This suggests that various ethnic groups may provide different kinds of career-related educational experiences or values to their children. Thus, some family backgrounds (through linked socio-cultural practices) may provide more advantage to students in their career decision-making. Further research, however, is needed to investigate the kinds of practices (associated with career (un)certainty) that different cultures provide to their youth.

The second family-related personal resource associated with career uncertainty was parental occupation, an accepted proxy measure of socioeconomic status. This finding was somewhat similar to the first significant result in that it confirmed the effect of family background on career certainty. Interestingly, Howard et al. (2011) suggest that SES does not have a stable effect on career decision-making, especially for adolescents. Another recent Australian research project, for example, found no relationship between students' SES (measured by parental education and occupation) and their career certainty (Gore et al., 2015). Results of an American investigation conducted by Wilson (2011), however, brought some clarification to the mixed effects of SES. Wilson (2011) suggests that parents' SES affects the occupational expectations of children *indirectly* through perceived parental expectations in relation to the educational achievements of their offspring.

In terms of internally derived personal characteristics (or in Sen's terms, functionings associated with personal resources), the current study showed that career uncertain students tended to rank their own academic, problem-solving and goal-orientation abilities lower than their career certain peers. There might be various reasons for this. Apart from a person's psychobiological characteristics, other influences affecting students' self-evaluations such as (i) the socio-cultural associations of students, and (ii) the effects of messages about their worthiness received from their educational system/s, should be considered. With regard to the first type of influence, previous studies have demonstrated how various student groups can rank their academic abilities lower than others due to socio-cultural influences regardless of actual achievements (Correll, 2001). This means that when particular groups of students are continuously expected to be incapable of high academic performance, they can internalise this kind of attitude.

In relation to the second possible influence related to messages of worthiness received from formal schooling, research indicates that students can indeed rank their abilities

differently in school systems with different curricula and assessment structures (Luke et al., 2006). This could, for example, mean that if students are repeatedly given challenging tests with the levels of difficulties exceeding their current levels of obtained knowledge or ability, they might form a self-perception that undervalues their own academic and problem-solving abilities.

The evaluation of the personal resources associated with ‘career uncertain’ students demonstrated the strong effect of formative resources on young peoples’ career choice preparedness. The association between home language and SES with career un/certainty indicate that family background has strong socio-cultural effects. These effects influence students on a continuous basis through multiple experiences and interactions between family members and others surrounding them. The findings regarding ‘career uncertain’ students ranking their own academic, problem-solving and goal-orientation abilities lower than their ‘career certain’ peers, while possibly being a psychobiological characteristic for some, also indicates possible socio-cultural effects provided through the educational experiences of young people. Furthermore, all of these predictors were more strongly related to career un/certainty than biological characteristics such as age or gender, which are often assumed to be some of the strongest influences on career determination (Galliot, Graham and Sweller, 2015; Gutman, Sabates & Schoon, 2014). Thus, the results of this study have demonstrated that the personal resources available to individuals (such as cultural and socioeconomic background), as well as their educational experiences provided, have a greater effect on career certainty than their biological characteristics and, as such, are open to amendment.

#### *Educational resources*

Analysis of the school-provided educational resources available to career certain and uncertain students suggested that there are gaps in the educational experiences of students in the career uncertain group. These students tended to attend non-selective schools, received no

career education classes/sessions, and reported limited curriculum diversity at their schools. In terms of school experience-derived functionings, 'career uncertain' students were dissatisfied with the availability of elective subject choices and, therefore, tended to make their elective choices not based on their own interests, but based on somebody else's suggestion. Lastly, 'career uncertain' students enjoyed school less than those participants who were more certain about their future careers.

These findings suggest that the education system in NSW does not equally serve the interests of all student groups. For example, the results indicate that students experiencing difficulties with their career determination tend to be less academically inclined (Dockery, 2010; Sikora & Saha, 2011). Modern formal schooling, however, tends to be increasingly oriented toward preparing students for university entry (Graham, Van Bergen & Sweller, 2015). This tendency holds despite the inclusion of Vocational Education and Training (VET) subjects in the senior secondary school curriculum (Polesel, 2008), which makes the quality and timing of such arrangements questionable in terms of preparing less academic and more hands-on oriented students to post-school transitions.

According to the findings of the present study, career uncertain students not only experience subjects that are far from exciting, but also tend to report a lack of career guidance. Such guidance, however, could assist them in recognising connections between what they study at school and future possibilities in the existing world of careers. In addition, career guidance could possibly provide disadvantaged students with an opportunity to maximise their use of educational resources, as goal-oriented learning could be more meaningful for them.

Current functionings, or what a person *is* and *does*, in many ways rely on the resources available (both now and previously) to that individual. The analysis of the relationships between the resources available to students in the present study and their functionings

illustrates that individuals' self-perceptions of their abilities are additive and largely influenced by what persons were exposed to and how, along with what they learned and the benchmarks against which they compare their own abilities. Considering that career uncertain students reported dissatisfaction with the availability of elective subject choices and that the available subjects did not adequately reflect their interests, it is not surprising that they judge their own worthiness lower than their peers who were more satisfied with school resources. This negative self-evaluation is particularly likely when individuals are forced to take greater responsibility for their own learning and the choices they make. In a way, when available resources do not match student's needs, and when young people are pressured into being more responsible for their own learning outcomes, individuals who are unsatisfied (and disengaged) with their curriculum choices are likely to be judged as having superficial characteristics or abilities.

Apart from school-based education, governments have sought to provide career information available online to facilitate young peoples' career decision-making. The results of the current study, however, show that this provision of information lacks effectiveness and influence due to the majority of young people being unaware of its existence. These findings suggest that the mere availability of resources without deliberate exposure and empowerment of students' agency in the use of such information and guidance tools is unlikely to be effective in improving career certainty of young people.

Taken together, these findings suggest that career choice capability – conceptualised here as students' ability to envision a desired future career – appears to be affected by socio-cultural interactions between home and school environments, as well as access to relevant educational experiences. Students who receive appropriate support and encouragement at their homes are more likely to extract maximum value from their educational resources and experiences, and increase their overall ability to form career preferences and enact them.

Those from disadvantaged home backgrounds, however, are less likely to make use of educational resources to the same extent as their more advantaged peers. These students also tend to receive more limited educational resources. As a result, these students (limited both in their personal resources and previous experiences) are more likely to be limited in personal agency, preventing them from acting as their own agents of change in finding and using newly available resources.

***Research Question Four: Do patterns associated with ‘career uncertainty’ highlight any particular educational practices and policies that might benefit from reform?***

This thesis (and also this chapter) started with a critique of the educational policies targeting disadvantaged young people with the aim of improving their educational and career outcomes. Now equipped with the empirical findings from the current investigation, I would like to reflect back on the assumptions underpinning those policies. Before making final reflections on the current investigation, it is worth highlighting that this study was conducted with belief in the promotion of equal opportunity as it pertains to career opportunities through education. The analysis of current educational policies and practices, however, suggests that a lot of changes are needed to ensure that school education is transformative and empowering, rather than reproductive in its nature. Research-driven modifications to policy initiatives and school practices are especially needed due to rapid changes in the modern globalised world.

*(i) Assumption that career choice capability is a problem of individual agency*

In relation to the assumption that career determination is a problem of individual agency, Sen (1999) suggests that a person’s agency is inseparable from societal influences:

‘Individual agency is, ultimately, central to addressing these deprivations. On the other hand, the freedom of agency that we individually have is inescapably qualified and constrained by the social, political and economic opportunities that are available to us.

There is a deep complementarity between individual agency and social arrangements. It is important to give simultaneous recognition to the centrality of individual freedom and to the force of social influences on the extent and reach of individual freedom. To counter the problems that we face, we have to see individual freedom as a social commitment.’ (pp. xi–xii)

The argument here is that personal agency depends on social arrangements and, in a way, it can be considered as a product of such arrangements. Thus, the development of career choice capability is dependent on more than the individual alone. In reality, however, instead of recognising state and societal responsibility for the career choice capabilities of young people, some government policies work to shift responsibility back to individuals. Those young people who do not have the ‘capability’ to act in an agentive manner become positioned as unwilling (as opposed to unable) to make career choices and to successfully transition from school to further education, training and employment.

The findings of this study provide support for the argument that the development of students’ freedom to exercise agency relies on circumstances beyond their individual will and biological characteristics. The differences between ‘career certain’ and ‘uncertain’ groups, particularly in terms of their educational experiences, implicate society in producing career choice inequalities by delivering different kinds of educational resources to different student groups. This study reveals that the most disadvantaged students, in terms of their personal resources and career uncertainty, also tend to be provided with educational resources that are unsatisfactory in that they do not meet student needs. At the same time, the study highlights that the pressure on young people to exercise their personal agency in helping themselves continues to grow. Recent Australian government budget cuts for schools and universities (Commonwealth of Australia, 2014) demonstrate further tendency to withdrawing state responsibility and leaving those with disadvantaged personal and educational resources to



deal with ‘their’ problems of career uncertainty by themselves. For the benefit of society at large, it is best to reverse this trend.

*(ii) Assumption that the dissemination of career information can empower students to act as ‘consumers’ in an unequal job market*

The dissemination of career information can be helpful for students in assisting them with career decision-making, however, in order to empower young people, deliberate exposure and guidance in its use are required. This is especially the case for young people who may lack individual agency due to limited or low quality personal and educational resources. In addition, the problem of the effectiveness of career information dissemination in targeting ‘career uncertain’ students, can also lie in quality and the relevance of the provided information and guidance to different student groups.

The study findings outlined in Paper Five demonstrate that provision of free access to online career exploration resources does not currently serve as a source of empowerment for the majority of high school students. Most of the participants of the survey did not engage in self-exploration of the existing career-related information developed by government bodies. In fact, most of the participants were unaware of online career information and guidance resources available for their self-service. Thus, the dissemination and provision of free access to these resources is largely ineffective due to missing important companions of agentic actions such as encouragement, motivation and explanation of use of the resources.

Even if students are made aware of online career guidance resources, ‘career uncertain’ young people are unlikely to gain benefit from self-service websites. The findings of this study showed that ‘career uncertain’ students reported lower academic, problem-solving and goal-orientation abilities than their career certain peers, all of which can present multiple obstacles in the unguided use of self-exploration and guidance web tools. Indeed,

accidental misuse of the systems may potentially mislead ‘career uncertain’ students in their career decision-making.

Kleiman and Gati (2004) warn that even adult clients of career exploration web resources might be overwhelmed by the structure and amount of presented career information, potentially causing them to get confused in the process of assessing their personal characteristics and to misunderstand any feedback obtained. In addition, it might be difficult to make a judgement regarding the quality of the information presented via these web resources (Kleiman & Gati, 2004). Sampson and Lumsden (2000) warn that misuse of online career guidance that relies on self-service can lead to inappropriate decisions being made by clients. To maximise effectiveness for the individuals using online career exploration services, Dozier, Sampson, Lenz, Peterson and Reardon (2014) recommend combining self-exploration with group or individual consultations with career counsellors or advisers.

Lastly, the assumption that dissemination of career information can empower young people to act as ‘consumers’ in an unequal and ever changing job market disregards the fact that the quality of the provided information might not be satisfactory for all of its users. The Foundation for Young Australians, for example, reports that 60 percent of students are currently studying for jobs that will be affected by automation or will not exist in the future. The myfuture.edu.au career exploration and guidance resource, however, does not seem to remove the uncertainties of young people in relation to emerging occupations, merely stating that those have ‘not yet developed clear career paths or clear job titles’ (Matchett, 2015; Myfuture, 2013, para. 1). Thus, the aim of empowering students to make the choices for their future by providing dated information about jobs of the past can be considered questionable.

*(iii) Assumption that agency is simply a question of will*

Some Australian government initiatives, such as the Higher Education Participation and Partnership Program (HEPPP), rely on the assumption that agency is simply a question of individual will. As such, young people identified to be experiencing (now or potentially in the near future) difficulties in their career determination and post-school transitions are provided with access to resources which were previously unavailable to them. According to Sen, however, the availability of a particular resource does not guarantee the ability of an individual to access or participate in the use of that newly available option.

From the perspective of the capability approach, Alkire (2009) highlights that a person's agency, or ability and willingness to convert resources into opportunities, go together with expansion of their freedoms. This means that, on the one hand, in order to be agents for themselves, individuals need to achieve certain freedoms such as being well-nourished and educated, while, on the other hand, persons can act towards achieving these freedoms by virtue of being their own agents. The current study demonstrates, however, that 'career uncertain' young people appear to have limitations in their previous access to resources and associated students' achievements, which both limit their personal agency in using newly available resources. As such, even when a person is willing to utilise a resource that became available in the last year of her high school studies, she may not be able to fully understand, access and/or use it.

Students' capability to form career preferences and to recognise the resources required to realise that career option, as well as to access and use those resources, requires more than just personal will. Career choice capability is formative and relies on the quality and content of formal and informal educational experiences. In order to form career preferences and move toward their realisation, students need to be able to choose career options that are meaningful to them. Before they can do this, however, they need to have an awareness of the available

choices, perceive them as achievable, have the appropriate set of knowledge, skills and abilities to realise those choices and be motivated to pursue them. This study's findings highlight, however, that there are associations between students' 'career uncertainty' and limitations in educational experiences such as career education and guidance, provision of elective subjects options relevant to students' needs and development of academic, problem-solving and goal-orientation abilities.

*(iv) Assumption that school education and career advice – as a means to freedom in the space of career development – is of equal quality, distribution and value to an increasingly diverse range of upper secondary school students*

While it is known from the literature that career uncertain students tend to have specific personal characteristics (see, for example, Curtis & McMillan, 2008; Dockery, 2010; Marks, 2006; Sikora & Saha, 2011; Thomson & Hillman, 2010), it is often assumed that the provision of additional years of education will equalise their career opportunities with those students from more advantaged backgrounds. Bessant (2014) argues, however, that the 'fact that large numbers of students are schooled says nothing about the quality of the curriculum or what they are learning' (p. 142). Providing a student with more hours of higher order maths instruction, for example, does not necessarily guarantee that person the opportunity to become an engineer. This is especially the case if the educators did not address lower order maths concepts with the individual before teaching more complex ideas.

This research demonstrates that not only do career uncertain students tend to start with disadvantages in terms of their personal resources, but they also have gaps in their educational experiences. This indicates that instead of addressing limitations in students' career choice capabilities, current educational systems provide a larger amount (in terms of numbers of years) of educational experiences that may be irrelevant or unsatisfactory to meet the needs of students uncertain about their future careers. Current policies insist on retention of young

people in educational systems while disregarding students' satisfaction with the studied curriculum. In a way, with an increase of compulsory years of schooling, schools themselves are no longer held responsible for motivating young people to remain at their services as structural forces may substitute schools' creative engagement.

The personal and educational resources possessed by career uncertain students, being of a limited or low quality, contribute to the development of superficial skills, knowledge, abilities, achievements and self-efficacy of young people. These, in turn, negatively affect the ability of individuals to convert available resources into opportunities. Thus, despite equal years of schooling for career certain and uncertain students, career-challenged young people cannot be judged as equal in their career choice capability in comparison to those who are equipped with better personal and educational resources.

### **Limitations of the research project**

Before moving to the discussion of this project's implications for research and practice, I would like to acknowledge that the current study, like any other empirical investigation, has a certain number of limitations. In particular, one should exercise caution in generalising the survey results to other student groups. The limitations can be described in three broad groups, based on the effects of the sample selection, chosen data collection methodology and the subjectivity inherent in responding to a survey.

First of all, in regard to the sample of the survey, the research was conducted in one state of Australia – NSW. Although being the largest state of Australia, NSW has its own economic, political, geographic and socio-cultural specificity. Thus, the opinions of students in this particular state might not hold for high school students in other states or countries. An additional limitation in the sample composition was brought about by refusal of the Catholic systemic schools to participate in the study. Thus, the sample included students representing

government and Independent sectors, which accounts for about 82% of the NSW school student population.

Secondly, in relation to the data collection method, it should be acknowledged that, while online surveys have multiple advantages in gathering student responses, there are some drawbacks in using this method as well. As such, not all students will find use of the Internet-based questionnaire to be the most convenient means of participation. Some high school students might not have Internet at home or on personal devices and may be unenthusiastic to use school time for completing the survey. Other students, despite the benefits of the non-judgemental atmosphere of computer-administered questionnaires, might be suspicious of online security and worry about privacy issues. Finally, certain student groups, due to their developmental stage or low levels of literacy, might prefer a person-administered questionnaire and thus be unwilling to participate in an online survey.

Thirdly, the self-reported data collected by the survey comes with its own limitations. To start with, participation in the research was absolutely voluntary, which means that respondents were self-selected. As a result, there is a possibility that some of those high school students who were not sure what kind of careers they would like to have in the future could have avoided participation in a 'career choice survey'. Another limitation was in relation to the questionnaire design, requiring participants to provide a self-evaluation on several occasions. While those questions were provided in order to investigate self-perceptions, self-judgement unavoidably brings a level of subjectivity to the results of the study.

### **Implications for research**

Multiple research studies about youth aspirations and post-school transitions have been conducted to date. The existing research has highlighted influences, barriers, factors and

catalysts of career determination. Most of the studies, however, focus on the individual as the source of the problem of career indecisiveness, putting the main responsibility on the person in question. Some studies analyse environmental influences on the career decision-maker and, on rare occasions, researchers look at both personal and environmental sides of the process. This thesis, however, has emphasised the inseparability of these two parts of the career determination equation.

Using a conceptual framework which draws on the ideas of Amartya Sen's human development and capability theory, this research investigated high school students' capability to make an agentive, informed and valuable career choice. Considering students' career choice as an outcome of personal backgrounds/abilities and educational experiences, this framework refocuses analysis of career choice capability away from counting opportunities and towards the abilities of individuals to use resources and convert them into opportunities.

This study recommends that further investigations of career choice capability and career indecisiveness should take into account the proposed approach of the examination of *individuals' abilities* to use and convert available resources into opportunities. This approach helps to look at the process of an individual's career determination in a context-specific perspective, which brings a researcher closer to reality for career decision-making.

### **Implications for practice**

The findings of the current investigation have a number of implications for educational policymakers, school administrators, and career advising and counselling practitioners. Some of these implications were provided in Papers Three, Four and Five of this thesis, however, for our sake here they are going to be organised and presented under two sections, informed by the theoretical framework deployed in this project. The first part of the implications suggests how the disadvantages of the personal/familial backgrounds can be

addressed by providing guidance and establishing better communications between schools and students' families and communities. The second part of the implications is focused more directly on educational resources provided at schools. The recommendations in both of these sub-sections, while being formulated around improving the provision and effectiveness of the resources available to students, are also important for enhancing students' abilities to convert those resources into freedoms to make their career choices.

### ***Addressing limitations of personal background resources***

The results of this study suggest that career uncertain students are likely to come from familial backgrounds with little disposition towards academic learning. Thus, in order to allow young people to be better prepared and to extract maximum value from the available educational resources, schools should provide pre-emptive education to students and their families about the best home-based practices for developing higher academic achievements, problem-solving and goal-orientation skills in individuals.

As students are highly affected by socio-cultural norms, values and presuppositions of their family members, schools should provide career information and guidance to both, students and their parents/guardians, in order to achieve the most effective and long-lasting results of career education. The communication with families should be done in creative and engaging ways relevant to diverse ethnic, cultural and SES groups.

In order to help students and their families to realise and have a better understanding of the modern career landscape, closer relationships between schools, families and communities need to be established. Various events and interactions between these parties should aim to identify and promote local labour demands, explore the needs of students and their families and to open up the ways in which they can be connected through schools and their educational practices. As part of such events and activities, students and their families



should be presented with role models with successful careers, who can explain the strategies and pathways behind their achievements.

### *Addressing limitations of educational resources*

Being already deprived in their personal and educational resources and having limited ability to convert available resources into career opportunities, career uncertain young people need extra support and guidance. To be most effective, the provision of extra support should start as a pre-emptive rather than reactive measure. For example, those students who are identified as having limited personal resources should be provided with high quality educational resources from the beginning of their formal education. This should allow for healthier development of their functionings which can help them in the future to act as agents able to bring about positive change for themselves and others.

In order to help career uncertain students to improve their problem-solving and goal-orientation abilities and improve their academic achievements, schools should implement programs allowing for students of different backgrounds (in terms of achievements, ethnicity and SES) to interact with each other and to exchange learning, planning and staying-on-task strategies.

Following recommendations of Bessant (2014) arguing for reducing barriers for children to exercise their freedom of choice, students should be supported to make their informed career choices. In particular, they should be taught about the available alternatives, the consequences of each and the pathways to achieving them. This should lead to students being more active learners who have the ability to convert career information resources available to them into opportunities.

For the best effectiveness, career exploration, information and guidance provision should start earlier than the current Year 10, and preferably before elective subject choices

need to be made by students. In this way, young people would be able to make more meaningful and valuable subject choices, which hopefully improves their taste for school and engagement with learning.

In terms of dissemination of the free access online career information and guidance resources, they need to have a better reach and content relevance for the audience they are targeting. The career exploration and guidance web-based resources should continuously provide up to date information in relation to a range of existing career opportunities and pathways towards them. The information should be presented in a way that is accessible, usable and culturally appropriate for diverse student groups. Students need to be made more aware of the existence of such online services by direct promotion through their respective schools or via mass media. Young people should also be presented with opportunities to navigate and explore online career guidance resources, along with provisions for face-to-face individual or group career counselling.

In addition, schools need to provide better services to young people who are not academically inclined and are not planning to undertake university studies, but who nevertheless would like to be prepared for an adult life with a rewarding career. Schools should identify the needs of such students and be more resourceful and creative in satisfying those needs. This speaks to a need for greater curriculum diversity and might require a rethinking of the purpose and structure of currently available VET courses.

### **Recommendations for further research**

This thesis, while providing valuable insights into career choice capability of high school students in NSW, offers possibilities for further research on this topic. The future investigations are invited to develop further understanding of the career determination and career indecisiveness experienced by young people in both breadth and depth. First of all, as

human development and capabilities are context specific, of particular interest would be investigations of career choice capabilities of high school students in other states of Australia, as well as other countries and cultures with different educational systems and macro-environmental factors. Investigations of this kind would help to identify which of the research findings in the current study are context specific and which hold true for students in other contexts.

Other future research possibilities were highlighted in the articles reporting results of the current investigation (Papers Three, Four and Five). For example, Paper Three emphasised the importance of further investigation of home-based educational practices of different ethnic and SES groups, and their comparative quality and relevance to various student groups. Some research in this area does exist, but greater focus on the practices affecting career decision-making would be beneficial. In addition, research investigating the interests, needs and expectations from school education of less academically-inclined students is needed in order to improve school services for students now required to remain in school until the age of 17. In particular, identification of the kinds of curriculum and pedagogical practices that are more appealing to non-academic students would be of great interest.

The findings reported in Paper Four related to a lack of career education provisions for career uncertain students and indicated several areas for further research, with the focus on the priority of career education in the overall hierarchy of school curriculum. First of all, researchers can evaluate the strategic role of career education in a broader strategy behind school curriculum, and the reasons behind unprivileged treatment of this educational area. Secondly, investigations identifying the best career education practices in terms of their effectiveness and school economy, and exploration of the possibilities for incorporation of career education into the curriculum of other subjects might provide school administrations with reasons to place greater importance on career guidance and counselling.

Another potential area for research, arising from Paper Four, is related to the disliking of Sciences and Human Society and Its Environment (HSIE) subject areas by career uncertain students. Investigation should be conducted with the aim of identifying opportunities to make highly academic subject areas such as Science and HSIE more accessible, relevant and interesting to less academic students who, due to recent educational policies, must now remain in school longer than in the past.

Lastly, the research findings presented in Paper Five have indicated potential benefits of research exploring what attracts (and also satisfies and/or frustrates) individuals with different personal characteristics in various career information and guidance web-based resources. It would be also beneficial to identify the reasons behind the use of online career guidance resources (or not) by career advisers at schools and what might make the use of the available resources more appealing to general school practice.

## **Conclusion**

This study investigated the concept of agentic career choice with high school students in New South Wales. Drawing on Amartya Sen's theory of human capability, this research sought to understand who is and who is not yet ready to envision their desired careers, and what factors may be of influence. While there are a lot of political and social pressures requiring individuals to make their career choices, the current study was influenced by the idea that a person's capabilities should be a shared responsibility of an individual and the society in which he or she lives.

In order to have a better understanding of the reasons behind some young people experiencing difficulties in their career decision-making and post-school transitions, I was concerned with what contributes to some students being able to make career choices, while others are unable to do so. Considering career decision-making through the lens of the

capability approach, it was treated as a formative process in which individuals' agency to make career choice relies, firstly, on personal backgrounds and characteristics, secondly, on educational resources and experiences and, thirdly, on an individual's ability to convert these resources into valuable *beings and doings* (or potential functionings).

The findings of this mixed methods inquiry shed new light on students' career choice capabilities. It became clear that the problem of career uncertainty lies, first, in limitations relating to both personal and educational resources and, second, in the underdevelopment of students' abilities to convert the available resources into the freedom to make a career choice. On the side of personal resources, career uncertain students tended to have family backgrounds that were less likely to provide them with appropriate preparation and guidance in a modern world of changed career opportunities and pathways. In terms of educational resources, school-based education fails to provide the breadth of experiences and services necessary for career uncertain young people. As a result of these limitations, career uncertain students have limited personal agency in the conversion of available resources and are less able to extract value from the newly available educational resources provided by recent policy initiatives.

It is hoped that the results and implications of this study will help educational policy makers, school administrators and career advising practitioners to make appropriate changes in current practices and reverse negative trends for those students who are the most disadvantaged and uncertain in their future career trajectories.

## **SECTION FOUR: SUMMARY**

The final section of this thesis (Section Four), which was represented by Chapter Nine, has provided reflections on the purpose, research questions and findings of my career choice capability investigation. Looking at the problem that some young people face in determining their future career through the conceptual lens of Amartya Sen's (1992) theory of human development, it became possible to obtain a new perspective on the issue at hand. Analysis not only of the personal and educational resources available to individuals, but also of the students' achievements and functioning informing their ability to convert those resources, has allowed me to reveal the reasons behind the difficulties some young people experience in making an informed career choice. The findings showed that young people uncertain in their career choices tend to have access to limited personal and educational resources to start with. In addition, they tend to have limited ability to convert available resources into career opportunities, which has relevance for government initiatives targeting youth post-school transitions.

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Appendix 1-6 (pages 249-264) removed from Open Access version as they may contain sensitive/confidential content



## **Appendix 7:**

### **The Central Human Capabilities (Martha Nussbaum)**

This appendix features part of the article (The list of The Central Human Capabilities) published as:

Nussbaum, M. C. (2003). Capabilities as fundamental entitlements: Sen and social justice. *Feminist Economics*, 9(2-3), 33-59. doi:doi:10.1080/1354570022000077926

#### CAPABILITIES AS FUNDAMENTAL ENTITLEMENTS

The list itself is open-ended and has undergone modification over time; no doubt it will undergo further modification in the light of criticism. But here is the current version.

##### **The Central Human Capabilities**

**1. Life.** Being able to live to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living.

**2. Bodily Health.** Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter.

**3. Bodily Integrity.** Being able to move freely from place to place; to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.

**4. Senses, Imagination, and Thought.** Being able to use the senses, to imagine, think, and reason – and to do these things in a “truly human” way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice, religious, literary, musical, and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to have pleasurable experiences and to avoid nonbeneficial pain.

**5. Emotions.** Being able to have attachments to things and people outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger. Not having one's emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.)

**6. Practical Reason.** Being able to form a conception of the good and to engage in critical reflection about the planning of one's life. (This entails protection for the liberty of conscience and religious observance.)

**7. Affiliation.**

A. Being able to live with and toward others, to recognize and show concern for other human beings, to engage in various forms of social interaction; to be able to imagine the situation of another. (Protecting this

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capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech.)

B. Having the social bases of self-respect and nonhumiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of nondiscrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin.

**8. Other Species.** Being able to live with concern for and in relation to animals, plants, and the world of nature.

**9. Play.** Being able to laugh, to play, to enjoy recreational activities.

**10. Control Over One's Environment.**

A. Political. Being able to participate effectively in political choices that govern one's life; having the right of political participation, protections of free speech and association.

B. Material. Being able to hold property (both land and movable goods), and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human being, exercising practical reason, and entering into meaningful relationships of mutual recognition with other workers.

Because considerations of pluralism have been on my mind since the beginning, I have worked a sensitivity to cultural difference into my understanding of the list in several ways.

First, I consider the list as open-ended and subject to ongoing revision and rethinking, in the way that any society's account of its most fundamental entitlements is always subject to supplementation (or deletion).

I also insist, second, that the items on the list ought to be specified in a somewhat abstract and general way, precisely in order to leave room for the activities of specifying and deliberating by citizens and their legislatures and courts that all democratic nations contain. Within certain parameters it is perfectly appropriate that different nations should do this somewhat differently, taking their histories and special circumstances into account. Thus, for example, a free speech right that suits Germany well might be too restrictive in the different climate of the United States.

Third, I consider the list to be a free-standing "partial moral conception," to use John Rawls's phrase: that is, it is explicitly introduced for political purposes only, and without any grounding in metaphysical ideas of the sort that divide people along lines of culture and religion.<sup>12</sup> As Rawls says: we can view this list as a "module" that can be endorsed by

## Appendix 8:

### Topics for focus group discussion in phase 1

#### Introduction:

Can you please introduce yourself – tell us your name and suburb you live in? Are you born in Australia? Where were your parents born?

#### Topic 1

Let us start with some questions related to what you like doing...

- Do you like school? What do you like or dislike about it?
- What are your favorite subjects? Why? What do you like about them?
- Is there any after school activity that you like to participate in?
- Are you good at your favorite subjects/*after school activity*? How do you know if you are good or not?
- What else do you like to do after school? Do you have any special interests or hobbies?

#### Topic 2

- And what do you want to do when you finish school?
- Why do you want to be ..... ?
- What do you have to do to become a ..... ?
- And what subjects are you learning at school that you think might help prepare you for that?
- Is there anybody who influenced you to choose ..... ?  
(*if you didn't make a choice: Is there anybody whom you admire? What do they do? When do you think is a good time to make a career choice?*)
- Do your parents, or the kinds of jobs that they do, influence your career choice in any way?

#### Topic 3

- Have you been to career education classes or had career advice at your school? Can you tell me what happens in those classes/meetings?
- What did you learn? Was it useful or helpful for you? In what way? Why?

#### Topic 4

Now let's talk about the future (about a **good life**):

- What do you need to **have** in your adult life to feel good?
- Do you think these will be enough? Is there anything else you will need?

- And what do you think you will need to **do** to feel good?
- What else you can do that will make you feel good?

Appendix 9-14 (pages 270-279) removed from Open Access version as they may contain sensitive/confidential content

## **Appendix 15:**

### **Related Publication 1**

This appendix features a journal publication which was produced as a result of my work on this thesis. In particular, being awarded Macquarie University Human Sciences Perspectives Series grant, I held a Symposium titled ‘Youth aspirations, participation in higher education and career choice capability: Where to from here?’ The symposium attracted key researchers in the field of youth aspirations and post-school transitions studies, as well as career counselling and advising practitioners and representatives of the Department of Education and Communities. Following the event, I was given the opportunity to become a guest editor and put together a Special Issue for the *Australian Educational Researcher*. This Special Issue provides the extension of the discussions of the symposium related to further developments of theory and practice in fields of research related to youth aspirations, career determination and higher education participation. The following article published as:

Galliot, N. (2015). Youth aspirations, participation in higher education and career choice capability: where to from here? *The Australian Educational Researcher*, 42(2), 133-137. doi:10.1007/s13384-015-0177-0

Pages 281-287 of this thesis have been removed as they contain published material. Please refer to the following citation for details of the article contained in these pages.

Galliot, N. (2015). Youth aspirations, participation in higher education and career choice capability: where to from here? *The Australian Educational Researcher*, 42(2), 133-137.

DOI: [10.1007/s13384-015-0177-0](https://doi.org/10.1007/s13384-015-0177-0)



## **Appendix 16:**

### **Related Publication 2**

This appendix features the article published as:

Galliot, N. (2015a). Career studies and advice: start early or don't start at all. *The Conversation*. Retrieved from The Conversation website:  
<https://theconversation.com/career-studies-and-advice-start-early-or-dont-start-at-all-40563>

✉ Get our newsletter X

## THE CONVERSATION

### Career studies and advice: start early or don't start at all

April 30, 2015 5:40am AEST

**Natal'ya Galliot**

PhD Candidate in Education at Macquarie University



Most career advice starts late in high school. This is too late for kids from disadvantaged backgrounds.  
from [www.shutterstock.com.au](http://www.shutterstock.com.au)

The unemployment rate for 15 to 19-year-olds is currently 20.1% in Australia. This is over three times the national rate of 6.3% and almost double the unemployment rate of this age group during the first year of the Global Financial Crisis, 10.7%.

This means that one in five young people is actively looking for a job. The longer they are unemployed, the harder it is to join the workforce.

Those who can turn to their mums and dads for financial support, do. However, statistics show that young people from disadvantaged backgrounds have the most difficulty in gaining meaningful work and contributing to our economy after leaving school.

Young people who experience difficulties making the transition to further education, training or work also tend to be less academically inclined. This makes it difficult for them to compete in contemporary job markets, as the demand for low-skilled labour is much lower than it was in the past.

Governments have been considering how to get students to think about what they want to do for a living and why. Students who think critically about their career choices well before they leave school are thought to benefit from improved further education and employment.

outcomes and make better choices than those who don't.

### Why some students are career uncertain

This is confirmed by a survey of over 700 high school students in NSW. Importantly, it found that students who were uncertain as to what they'd like to do in their future career share some important characteristics.

Prior academic achievement was a factor. For example, students attending academically selective schools were more certain about their future career path than students in non-selective schools, as were students who rated their academic ability in the top third of their grade. Students who ranked themselves as being in the bottom third of their grade were more likely to be uncertain about their career.

Location and job availability also appeared to have an effect. Higher proportions of students located in urban schools were certain of their future career, whereas students from outer-metropolitan and rural schools were much less certain.

Somewhat unexpectedly, those uncertain about their careers across all year groupings (from Years 9 to 12) reported never having access to a career education session. This is despite the recommended provision of career education to high school students in Years 9-10 by the Australian Curriculum, Assessment and Reporting Authority (ACARA).

These uncertain students also reported that they did not participate in school-organised work experience programs. These might have helped them determine their career preferences.

They also reported they didn't enjoy school and there were not enough elective subject choices. In many cases, they made their subject selections on others' recommendations and not because they were interested in them.

### Good seed makes a good crop if looked after

In order to help disadvantaged youth improve their career prospects, Australian government initiatives attempt to force students to stay at school and explore the option of attending university.

However, something more effective is needed if we're to get these kids interested in their careers and how their school studies relate to real work.

Researchers from the University of Newcastle note that younger students tend to have higher aspirations than older students. They recommend intervention as early as primary school, rather than waiting for students to flounder through high school.

Educating students, parents and teachers about the link between school subjects and possible career pathways can make school more meaningful. The education system should move towards ensuring that students are provided with career education sessions before they make their elective subject choices, enabling them to make informed decisions. At the moment, this rarely happens.

In addition to earlier provision of career advice, the choices of elective subjects should reflect students' needs and interests. This is problematic because of existing problems in the education system.

While many academically inclined students are satisfied with traditional academic subjects such as English, history, science and physics, schools in disadvantaged communities must appeal to a much broader range of tastes, despite limited resources.

If students can't identify any interesting subjects and are forced to remain at school, they are set on a dangerous path. School suddenly becomes less enjoyable, they underperform in subjects from which they derive no enjoyment and, as a result, they are likely to have low self-esteem, poor educational outcomes and poor job prospects.



disadvantaged students

## **Appendix 17:**

### **Related Publication 3**

This appendix features the article published as:

Galliot, N. (2013). Cultural and social diversity and the transition from education to work. *British Journal of Guidance & Counselling*, 42(1), 118-120.  
doi:10.1080/03069885.2013.858558

Early on in the book Thomsen discusses models developed by Watts (1996) and revised by Peter Plant, which identify four ideological orientations for career guidance (conservative, liberal, progressive and radical). One of the implications of Thomsen's work is surely that collective approaches to career guidance which draw on the collective experiences of clients might also support the development of collective solutions. Such solutions might operate within a progressive paradigm ('together you could set up your own business or orchestrate a workers' buy-out of a closing plant'), but it is also likely that such collective problem solving might move people into more radical approaches ('we won't be able to advance our career unless we collectively bargain, form a union or change the law or government'). Such approaches reframe the individual vs. society debate and require new thinking, perhaps drawing on the radical pedagogies of thinkers like Freire (1996/1970). The fact that Thomsen does not explore these collective solutions to career problems is surprising given the general direction of her argument. It may simply be that such solutions were not observed empirically.

Despite this reservation about Thomsen's decision not to explore radical and collective career guidance solutions, *Career Guidance in Communities* remains a very important book. It provides new analytical ideas for exploring career guidance as well as a persuasive critique about how practice should develop. It deserves to be read by all working in the field.

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**Cultural and social diversity and the transition from education to work**, edited by Guy Tchibozo, Dordrecht, Springer, 2013, xv + 232 pp., £90.00, ISBN 9789400751064

*Reviewed by Natal'ya Galliot, Doctoral Candidate, School of Education, Faculty of Human Sciences, Macquarie University, Australia. Email: natalya.shcherbak@students.mq.edu.au*

The topic of the transition from education to work has been hotly debated since the 1980s and has drawn even more attention in the post-global financial crises era, with youth unemployment reaching around 40% in some countries of the European Union and financial stresses forcing individuals and families to cross borders in search of better economic prospects. While challenging, population diversity can be a source of untapped opportunities in productivity and innovativeness for both the public and private sector. *Cultural and Social Diversity and the Transition from Education to Work* therefore presents as a timely and important contribution that will go a long way towards increasing understanding of the issues related to diversity in education and the workplace. It will appeal to a wide interdisciplinary audience, including educational administrators, career

advice practitioners, human resource managers and policy-makers. It could also prove a fruitful read for university students studying the sociology of education, educational policy or more general topics concerning youth career determination.

The book is edited by Guy Tchibozo (Professor of Education at Université de Limoges) and written by a team of individuals on various rungs of the academic ladder and from all parts of the world, including the US, Canada, Australia, Malaysia, Oman and the European Union. The volume covers a wide range of topics and provides a sound theoretical grounding combined with a good amount of empirical research. Twelve chapters are arranged into four parts. The first introductory part consists of merely one chapter that provides an overview of the process of the school-to-work transition with all its determinants and dimensions. It also sets the scene for one of the main themes of the book: diversity. Tchibozo argues that there is a demand for diversity, not only from the public but also from the point of view of organisations, which have to work with a diverse range of internal and external clients.

Chapters 2–5 form the second part of the book, 'The Demand for Cultural and Social Diversity'. The authors of these chapters highlight the workplace diversity issues relevant to the USA, Oman, the European Union and Malaysia. Mitchell provides evidence of demand for diversity in public services, nursing, the military and representative bureaucracy. Feighery continues with the discussion of 'mainstream' and 'critical' approaches to managing cultural diversity in European tourism. Al-Harthi and Al-Harthi argue the importance of making students competent in understanding cultural diversity matters in order to meet the demands of modern workplaces, while Othman focuses his attention on the debate concerning the opportunities and challenges associated with the employment of persons with disabilities as part of workplace diversity initiatives. These four chapters sit comfortably together as a group and provide the main foundation of the book. Audiences less familiar with the topic of social diversity will probably also find it rewarding to read the detailed explanation of the Hofstede's cultural dimensions theory in Chapters 2 and 3 (also described in Chapter 1).

Those more interested in the topic of education-to-work transitions can start their reading directly from the third part of the book, 'Responses from the School-to-Work Transition Systems'. Chapters 6–8 provide in-depth conceptual discussions in relation to the effects of diversity on post-school transitions. Drawing on Nussbaum and Sen's capability approach, Harnveld, Singh and Li analyse 'wider disparities in the distribution of power, wealth and opportunity' and 'unfair distribution of life chances' using the example of indigenous and non-indigenous young people (p. 113). Two of those authors then join with Chen to argue for the deployment of diverse theoretical frameworks in research into diverse school-to-work transitions. Finally, Kizildag and Eriksson provide a detailed examination of the term 'diversity' and discuss the theoretical grounding of teacher-student learning based on sociocultural, conversational and experiential perspectives.

Chapters 9–11 seem to have the most interesting content for career guidance practitioners and those concerned with the practical implications of existing research. Abdullah proposes particular recommendations to bridge the school-to-work transition for persons with disabilities. Marshal and colleagues focus their attention on post-school transitions of aboriginal and other cultural minority groups and offer some suggestions for improving outcomes for those groups. Xu, in turn, recommends that universities forge stronger associations with communities, organisations, institutions and society at large in order to share information and promote the integration of a diversity stance in school-to-work transition programmes. The editor's conclusion provides a useful summary of the main challenges and opportunities behind the various issues of diversity in school and the workplace. It also aims to guide further research.

One of the strengths of the book is its coherent layout. Most of the chapters have something of a similar structure, including an introduction and background to the problem, followed by consideration of research objectives, theoretical and methodological framework, findings, discussion and implications, conclusion and a reference list. However, Feighery's chapter on cultural diversity and the school-to-work transition would have benefited from some tweaking of its subheadings, as they are not indicative of the true content. While most of the authors are very clear in describing their methodology, Al-Harthi and Al-Harthi could have provided a more detailed explanation of what they did and why they opted for their particular approach. The authors first say that they were carrying out an exploratory study, but then later state that a quantitative survey was their main instrument of investigation. There was no explanation or reference to the relevant methodology literature pointing to how their methodology was in any way exploratory. Perhaps the authors called their study exploratory in an attempt to acknowledge the poor generalisability of their findings due to overly convenient sampling.

One last minor shortcoming is the various ways in which 'diversity' is understood by different authors. Othman provides quite a negative vision of the term, stating that 'workplace diversity refers to the efforts made by the organisations to include people within the workforce who are in some ways different from the majority of the population' (p. 87). On the other hand, Kizildag and Erikson offer a more neutral or even positive definition: 'diversity is a word that describes the ways in which each individual is unique' (p. 145). To an extent these different representations of one of the key concepts of the volume serve to highlight the dual nature of the term: from one perspective diversity is a challenge to deal with, and from another it is an opportunity for achieving new or different outcomes for organisations and society.

Overall, *Cultural and Social Diversity and the Transition from Education to Work* is a rewarding piece of reading that covers the relevant conceptual foundations, empirical findings and implications. It will be appealing to a wide audience from academics and policy-makers to career guidance practitioners. It might also be recommended as a prescribed reading for those who conduct studies on youth determination in a modern world.

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**To call myself beloved**, by Eina McHugh, Dublin, New Island, 2012, 256 pp., £11.99 (paperback), ISBN 9781848401846

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At a crucial point in this book, the narrator tells us that an 'authentic therapeutic account' is anything but a linear narrative:

It skates endlessly around itself, spiralling in quicky circles of progression and regression, boringly tracking the same old story, yet, each time around, understanding and meaning are being forged at deeper levels. (p. 80)



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<sup>i</sup> Whilst applications to conduct research in Catholic schools were submitted to several Catholic dioceses, approval was not granted.

<sup>ii</sup> This difference between year groups does not account for significant differences between career certain and uncertain groups.