NEOLIBERAL PERFORMANCE & RESISTANCE
IN AUSTRALIA'S
FLEXIBLE LEARNING SECTOR

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ABSTRACT

This thesis is concerned with conceptualisations of value in Flexible Learning Options (FLOs), alternative educational programs that provide disengaged young Australians pathways to re-engage in education. It explores the positioning of FLOs in Australia's neoliberal political economy and the visions of change upon which these programs are founded. It investigates the development of flexible learning practitioners' professional identities as agents of social change, and the ways in which practitioners validate their impact as educators. As a work of critical scholarship, the research not only interrogates structural relations of power within the Australian educational system, but also uncovers opportunities to challenge these relations. To this end, the thesis demonstrates a validation of flexible learning outcomes using quantitative means. In so doing, it challenges the disabling effects of Australia's prevailing assessment paradigm, leveraging advanced econometric methods to evince alternative concepts of value.

Chapter 1 contextualises the role of FLOs in Australia's neoliberal political economy. It brings together critical scholarship on recent moves towards the centralisation, standardisation and marketisation of education in Australia. The chapter explores the resulting concentration of disadvantage in low SES-area schools and pressures to 'exit' low performing students—increasingly into the flexible learning sector. Discussion also draws on research concerning the proliferation of high-stakes, competitive testing in Australia and the outsized influence of national and international assessment regimes on local educational policymaking and praxis. The standardised, quantitative assessment currently privileged by policymakers is contrasted with FLOs' holistic approach to the appraisal of educational outcomes. The chapter concludes with the growing call among critical scholars to resist the notion of education as human capital production and the reductive modes of thinking that go along with it.

As sites of critical educational practice, FLOs aim to interrupt the cycles of disadvantage, disengagement and poverty. Such aims are often formalised in FLOs' foundational ethos, mission statements and official policies. Yet, to varying degrees, the modes by which such policies are enacted remain subject to deliberation among the practitioners themselves. Grounded upon Habermas's (1971) conception of education in the service of human beings' 'emancipatory interest,' Chapter 2 explores the ways in which flexible learning practitioners embody, enact and resist the counter-hegemonic policies of their parent organisations. Informed by Fraser's (1990) notion of the 'subaltern counter-public,' the chapter highlights

the mediating role of FLOs' parent institutions in determining practitioners' practical potential as agents of social change.

Drawing on interviews with flexible learning practitioners at sites across Australia, Chapter 3 enumerates the outcomes valued in FLOs, as well as the various evidence forms cited by practitioners to substantiate those outcomes. Framing success as 'distance travelled' (i.e., an individual's progress relative to his or her own starting point), practitioners demonstrate critical awareness of the social and structural mechanisms by which young people are marginalised from mainstream schooling. Holistic assessment practices also reveal practitioners' efforts to expand the terms of reference by which educational outcomes may be validated in alternative education settings.

Few studies have systematically evaluated FLOs' ability to improve the long-term social and economic outcomes of students at-risk of educational disengagement. Informed by the qualitative analyses of Chapters 1-3, Chapter 4 proposes an alternative paradigm based on flexible learning practitioners' own stated priorities. The chapter begins with a discussion of the prevailing models by which returns to schooling are assessed. It queries these models' strengths and weaknesses through a methodological review of their underlying econometric bases. Based on this review, the use of matching estimators for the estimation of treatment effects is proposed as a method for establishing the long-term impact of flexible learning outcomes.

FLOs promote the educational re-engagement of disadvantaged young people for whom traditional schooling has not worked well. Given the profound conditions of disadvantage faced by members of the flexible learning cohort, practitioners often point to attendance itself as a valuable and noteworthy outcome. Due to a lack of longitudinal data on the life pathways traversed by flexible learning participants over time, however, the long-term effects of their continuous engagement as young people remains obscured. Chapter 5 utilises propensity score matching, a matching estimators technique for the estimation of treatment effects, to assess the impact of keeping disadvantaged young people in education, training or employment on their subsequent risk of experiencing disengagement as young adults. The study utilises data from the 2003 cohort of the Longitudinal Surveys of Australian Youth (LSAY), which follows more than 3,000 students over a ten-year period. Findings suggest that FLOs' efforts to keep disadvantaged young people engaged in upper secondary education until the school leaving age bear positive impacts for participants independent of their academic achievement and psychosocial outcomes in such programs.

FLOs also emphasise young people's sense of belonging within the learning environment as a requisite of educational success and a critical ingredient of their future social and

economic inclusion. Despite the prominence accorded to young people's affective engagement in FLOs, however, scant research has endeavoured to quantify the long-term impacts of students' sense of belonging with regard to their subsequent quality of life. Chapter 6 investigates the effects of students' sense of belonging at school at age 15/16 on their life satisfaction and mental and emotional wellbeing as young adults. Also using propensity score matching and data from LSAY's 2003 cohort, findings suggest that increasing students' sense of belonging entails important psychosocial benefits that extend well beyond their time at school.

These empirical chapters are followed by a short Conclusion, summarising the dissertation's central findings and main theoretical and methodological contributions to critical educational scholarship.

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LIST OF ACRONYMS

ABS	Australian Bureau of Statistics
ACARA	Australian Curriculum, Assessment and Reporting Authority
ACER	Australian Council for Educational Research
AUD	Australian dollar
CoAG	Council of Australian Governments
DEEWR	Department of Education, Employment and Workplace Relations
ESCS	Index of economic, social and cultural status (PISA)
FLO	Flexible learning option
HILDA	Household Income and Labour Dynamics in Australia (survey)
HOL	Hands on Learning
ILP	Individualised learning plan
IV	Instrumental variable
LSAY	Longitudinal Surveys of Australian Youth
MCEECDYA	Ministerial Council on Education, Early Childhood Development and Youth Affairs
MCEETYA	The Ministerial Council on Education, Employment, Training and Youth Affairs
NAPLAN	National Assessment Program—Literacy and Numeracy
NEET	Not in education, employment or training
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary least squares (regression)
PATT	Population average treatment effect (of the treated)
PISA	Programme of International Student Assessment
PSM	Propensity score matching
RTO	Registered training organisation
SATT	Sample average treatment effect (of the treated)
SEM	Structural equation modelling
SES	Socioeconomic status
TAFE	Technical and further education
VCSS	Victorian Council of Social Services
VET	Vocational education and training

INTRODUCTION

Flexible Learning Options in Australia

This thesis is concerned with Flexible Learning Options (FLOs), alternative educational programs that provide disenfranchised young people pathways to re-engage in education. In Australia, state and federal educational policy unabashedly emphasises the role of schools in the nation's human capital development strategy. As discussed at length in the dissertation, this emphasis has led to a bifurcation of Australia's educational system and the concentration of socioeconomic disadvantage. By extension, an increasing number of young people are being pushed out of schools that are unable—or unwilling—to accommodate their needs. FLOs have stepped in to fill this gap, articulating a vision of education in which disadvantaged young people may recover their wellbeing and gain the requisite agency to challenge their social and economic exclusion. This thesis is interested in the ways that flexible learning practitioners conceive of and articulate such value. It explores the positioning of FLOs in Australia's neoliberal political economy and the vision of change upon which these programs are founded. It investigates the development of flexible learning practitioners' professional identities as agents of social change, and the ways in which practitioners validate their impact as educators. As a work of critical scholarship, the research not only interrogates structural relations of power within the Australian educational system, but also uncovers opportunities to challenge these relations. To this end, the thesis demonstrates a validation of flexible learning outcomes using quantitative means. In so doing, it challenges the disabling effects of Australia's prevailing assessment paradigm, wielding advanced econometric tools to substantiate alternative concepts of value.

Research paradigm

The following excerpt succinctly clarifies much of the purpose, aims and methods of the present dissertation. In the Spring of 2016, I interviewed a small group of flexible learning practitioners—comprising a handful of teachers and classroom assistants, a social worker and the on-site program director—about their work. Their candid reflections, explored among others in Chapter 2 and Chapter 3, reveal a keen apprehension of the overall motivation of this research. They also intuit the key methodological dilemma to which Part II of the thesis is addressed: how does one assess what would have happened in the absence of intervention? In only a few minutes of conversation, these practitioners elicited a clearer

depiction of the researcher's intent and positionality than could likely be mustered without them.

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Veronica: Do you want to describe your program before we start?

Q: Yeah, that sounds great. I'm a PhD student in the Department of Economics at James Cook University in Townsville, and I joined this team about a year and a half ago. We're looking at flexible learning options all across Australia. So Blue Gum is one of six partner sites that we're working with and, first of all, let me just say that there's a tremendous and intense interest in what you do. From the flexible learning teachers that I've met through my time in the project […], I know that with the challenges you face and the way that these programs are often set up it can sometimes feel a bit isolating. But from our perspective, everybody wants to know what you're doing. You're kind of right on the cutting edge, which I think is really important. Yet there's not very much academic work about what you do. So, we're part of that—exploring what you do.

My part of the team is investigating a problematic question: what is what you do worth? My PhD acknowledges that that's not really a fair thing to ask educators, at least in my opinion. They don't really ask it that way, but they do kind of—they want to know, 'What do we get out of it?' From the political perspective, there seems to be a lot of pressure on educators to perform so that society gets a return on its investment. So, in one way, I'm criticising the way that that question has been answered in the past. How has that question been answered?—they've looked at the average salary of high school graduates. And based on that, the economists say, 'This is what high school graduation is worth.' This is pretty much how they've justified putting more money into programs like this. But I don't think that's really what you do, is it?

Sophia: I don't think they put a lot in, to be honest.

Carissa: No.

Q: And I would suspect that part of the reason for that is because this isn't an appropriate question to ask in the first place.

Carissa: No.

Q: So, our quantitative team is of the belief that who you are in life really does matter—that graduating with a Year 12 from a private school in Sydney is probably worth something different than a Year 12 for an Indigenous young person up Cape York. I have a suspicion that's probably the case. But how do you find that out? How can you back that up with methodologically appropriate tools? So, we're trying to develop those. But my PhD is also about how those pressures to demonstrate value impact you as educators. When somebody

comes and says, 'What you do—we want to know what it's worth.' I have to believe that has consequences in the way that you view your work and the pressures that you feel, and how those pressures get incorporated into your daily lives here.

So, that's what today's about. I want to hear about that and I'm happy to answer any questions that you might have about what we're doing. In terms of where this goes, I mentioned there's a lot of interest in what you do. So, we'll have a few refereed journal articles that we're producing on these themes. And my PhD will certainly speak to the things that I'm talking about with you today. There will be a few conference presentations, we're speaking to educators and policymakers—so I guess we'll be heard by a pretty broad audience of people who actually have some influence over whether or not this sort of thing gets funded.

To be honest, that's the impetus of this whole project in the first place. I recognise that a lot of these programs are horribly underfunded—that comes from a leader of a program that has much more funding than this one does. I can only imagine the scale of it. I'm trying to answer that question of value in a way that actually empowers educators—that's my ambition at least. Does anyone have any questions or concerns about it?

Veronica: Can you just clarify—your question is, 'What's the value of our work?' What's another way of asking the question?

Q: That's it and that's the problem exactly. First of all, even if we narrow things down to a few common goals that we could say are definitely being reached—if we just set those issues aside for a second—then the question is, '*Who* do you teach?' Because what you do might be worth a lot more to that person than a Year 12 [completion] would be worth to somebody else. And when we say 'worth,' then we have to ask ourselves, 'How are we measuring that?'—in terms of wages? In terms of what we like to call 'distance travelled?' So, a young person on the cusp of jail or death who comes and learns to read and write and turns her life around and walks out the door with a new sense of wellbeing—how do you measure that? These are the questions that we want to try to get to. And the truth is, in our work, a lot of the questions will be unanswerable.

Veronica: One of the questions it raises for me is, 'How do we track what might have happened?' How does the intervention avoid the outcome that we can—or might have—seen in another situation? […] How do you quantify what you can't have known?

Q: It's a fantastic question—very well stated. You've hit it right on the head. In economics, we call that the 'counterfactual.' You can't quantify it directly—it has to be estimated. So, this is the principal innovation that we are bringing in the quantitative part of this project. What we're going to do is find young people who are alike in the ways that we think matter.

How do we know what those ways are?—by talking to you. So, what are the risk factors or the characteristics that matter? We want to go much deeper than the general 'big five' characteristics that the literature points to: Indigenous status, socioeconomic status, English as a second language, migration status and remoteness of residence. These are things that are typically understood to matter in terms of outcomes.

But just as I say it, you can see how thin that list really is—that's clearly not enough. Why do those pop up in the literature?—because that's the stuff that you can measure. I could ask you much deeper questions, but the census won't, and in order to give this stuff methodological credibility, you have to have a sufficient sample size, it has to be representative, you have to talk to a lot of people. So, gathering wellbeing data from enough people such that it's actually comparable is a different story.

So, how do you estimate the counterfactual? What we're going to do is identify the young people who look like they're on that path of disengagement. Who are the type of young people who are likely to become part of this sort of program? First, we have to define what our young people look like. It could be as straightforward as, 'They're [in the program here],' or it could be disengagement—not in work, or training or in some sort of educational program. It could also be a sense of belonging. National surveys do actually measure belonging, so we could use that, for example. We divide the young people in the survey into two groups. These groups are statistically alike in all the ways that we think matters, except that one group re-engages through [a program like this], and the other one doesn't. We follow them for 10 years and see what their outcomes look like over that period. The difference between the groups comes down to the things you do with them here.

It's all estimated because we're not really following 10 graduates of your program, or 100 graduates of your program for 10 years, we're following young people who—we're not following them, they were already followed—we're looking at data sets like the Longitudinal Surveys of Australian Youth, for example, which look at schooling and employment and things like that. That survey is targeting younger people, and it looks much more deeply at wellbeing and disengagement from school, disaffection with learning, and they get pretty deep into the things that matter. It's those young people that we're going to be looking at— their life trajectories over that period—and we'll see if we can draw some educated conclusions about how this sort of thing might make the difference.

Veronica: And then you can convert it into a dollar figure?

Stacey: Or the government can.

Veronica: Yeah that's right.

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Q: Yeah, well, somebody will—absolutely they will. Look, it's okay to say that a person who's not on drugs has lower public health expenditures. I think that's perfectly legitimate. In terms of what gets converted into a dollar figure, they'll look at public health expenditures, juvenile offending expenditures—

Veronica: Policing expenditures—

Q: Yeah. Depending on the amount of data, that usually gets wrapped into 'youth justice involvement'—and income.

Veronica: In the way of tax dollars.

Q: Yep.

Jeremy: Is it in the best interests of our program that that second group—the ones who are not engaged—actually crash and burn? Is it too simplistic to say that or—

Carissa: You going to go out and sabotage them?

Jeremy: It almost counts in our favour if they actually don't do very well.

Q: I don't know. I'm not sure. Here's my challenge with it: when I took this project on, I thought to myself, 'That sounds really interesting, but what if what we discover is not complimentary to the partners?'—because you're our partners in this. I really doubt that the involvement of young people in this program doesn't transform their lives—I believe that it does. The question is whether those transformations that they experience here that enhance their agency and wellbeing—whether that's enough to overcome the structural disadvantages they'll face for the rest of their lives.

Veronica: That's such a good question.

Q: And that's really what we've set out to ask. Is it enough to feel great and to feel better and to have recovered and travelled such distance over these very vulnerable years of your life? What happens when they leave? That's the counterfactual that we have to guess at: what happens when you leave—what's the difference? We don't know yet. You could be right, it could show that the difference was really huge and really matters. Then again, it's possible that's all subsumed into whether or not your parents have a college degree. Who knows? We'll find that out as we go.

Veronica: In a whole range of ways, we give them cultural capital that they could never have even imagined. However, having said that, it's almost a random outcome. For every one kid who's doing really well—had a child pretty young, went back to work full-time, successful— you'll have another one who has a kid, and then has another one in an abusive relationship, and you go, 'Oh god.' So, what on balance do we end up with is a really big question even in our minds. Because structurally, the capacity for these kids to be supported once they're

out of here—to build on the capital that they've been given—is a completely random outcome.

Sophia: Or is it?

Q: That's the question.

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Research design

This dissertation is embedded within a larger investigation of the social and economic value of FLOs for young people and the broader Australian community. The primary aim of that overarching research—a multi-institutional collaboration sponsored by the Australian Research Council Linkage program—was to discern the impact of flexible learning interventions on participants' life trajectories with regard to their economic and social outcomes over time, including engagement in employment, education and training, as well as their social and emotional wellbeing during and subsequent to participation in a FLO.

The research underpinning the dissertation itself employs a 'multimethod' research design, that is, it combines quantitative and qualitative methodologies undertaken in separate parts, with the results of each part triangulated to form a comprehensive whole. Morse (2003) distinguishes multimethod design from the more commonly understood 'mixed-method' design:

> When using a multimethod design, data are not usually combined within projects, as may occur in a mixed methods design when, for instance, textual data are transformed to numerical data and used in the analysis of a quantitative study. Rather, in a multimethod design, each study is planned and conducted to answer a particular subquestion. (p. 199)

Case study sites were selected in cooperation with industry partners Edmund Rice Education Australia—Youth+, The Brotherhood of St. Laurence, Victoria University, the Victoria Department of Education and Early Childhood Development, Centacare North Queensland, Catholic Education Office of Western Australia, James Cook University, and the Northern Territory Department of Education and Children's Services. A total of eight sites were selected, representing a diverse cross-section of FLOs throughout the country. Sites included a diversity of programs with respect to operational tenure (i.e., 'mature'—older than 5 years, 'established'—3-5 years old, or 'fledgling'—1-2 years old), sector (i.e., governmental, independent or Catholic), and size (ranging from enrolments of less than 50 to more than 300) in Queensland, Victoria, Western Australia and the Northern Territory. Sites were either registered schools or independently governed programs (i.e., they were not tracking or

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diversion programs embedded within 'mainstream' schools). Three of the sites served majority Indigenous cohorts. All of the selected sites offered non-compulsory, credentialed, secondary-level education to previously disengaged young people (i.e., to young people aged 12-19 who would not otherwise be in an accredited learning program).

Phenomenological fieldwork was undertaken collaboratively, with all members of the research team conducting participant observation, as well as in-depth, semi-structured interviews with a total of 92 flexible learning practitioners (i.e., teachers, youth/social workers, support staff and program administrators) across the eight sites. All staff present during the site visit were invited to participate in an individual and/or group interview. Participation was encouraged by site managers, but was strictly voluntary; interviewees provided signed, informed consent and were free to withdraw at any time. All interviews were audio-recorded and transcribed for later analysis. Thematic coding of interview transcriptions was undertaken using QSR International's NVivo 11 qualitative analysis software. To protect the anonymity of practitioners and program participants, particular staff titles were redacted and all interviewees and their organisations ascribed pseudonyms. Ethics approval was granted by the Human Research Ethics Committee at James Cook University.

Subsequent to the collaborative data collection, additional independent fieldwork was undertaken at three of the sites in Queensland, Victoria and Western Australia. Semi-structured interviews were conducted with all practitioners (i.e., educators, classroom assistants, social workers and administrators) present during each site visit. The purpose of these supplementary site visits was to solicit additional perspectives pertinent to the emerging central themes of the thesis.

Concurrent to these qualitative investigations, the research also included an extensive econometric modelling exercise. Using secondary longitudinal survey data on youth transitions from secondary schooling into further education, training and employment, this component of the research aimed to substantiate a number of flexible learning outcomes through quantitative means.

In accordance with the dissertation's multimethod research design, findings are presented in four distinct parts. These parts comprise the empirical components of the thesis and are presented in Chapter 2, Chapter 3, Chapter 5 and Chapter 6. Chapter 2 and Chapter 3 feature a qualitative—principally ethnographic—methodology. Chapter 5 and Chapter 6 utilise quantitative methods of longitudinal, multivariate analysis.

"The obvious strength of using a multimethod design," Morse maintains, "is that it provides one with a different perspective on the phenomenon. [...] The combination of interdependent studies provides a more comprehensive picture than each would alone" (p.

205). Notwithstanding this endorsement, the combination of qualitative and quantitative research methods under the banner of 'triangulation' has come under criticism for researchers' frequent failure to grapple with these traditions' "different and incommensurate ontological and epistemological assumptions" (Blaikie, 1991, p. 115).

To paraphrase and extend Christiaensen (2001) on the practical implications of the epistemological stance, the debate about the merits of qualitative and quantitative research for gathering, analysing and interpreting data on social phenomena is equally about how researchers define social phenomena in the first place. And "while it would be an exaggeration to equate methodological preference with the analyst's perspective on the nature of knowledge, they are not completely independent either" (p. 70).

Christiaensen situates quantitative research in the epistemological tradition of logical positivism, i.e., within the view that there exists an objective, external reality whose knowability is constrained only by the limitations inherent to the technologies of observation and measurement. To represent that truth,

> the analyst seeks to increase the likelihood of unbiased, objective answers mainly by relying on statistical principles in its study design (experimental, quasi-experimental, representative sampling) and structure, standardization and quantification in its data collection. The former principles are intended to guarantee representativity permitting a generalization of the results for the population under study. The latter aim—amongst others—to solve problems of bias and variability in the interviewer-interviewee interaction. (Christiaensen, 2001, p. 70, citing Tourangeau, 1990)

Jackson (2015) argues that despite a rapid contemporary mainstreaming of qualitative research methods, much of academia remains firmly rooted in the positivist tradition. Notwithstanding the intuitively subjective and individualised nature of psychological intervention, for example, Jackson observes that undergraduate program guidelines and introductory texts published by leaders in that field are strongly oriented towards quantitative methods and typically only mention qualitative research in order "to compare it unfavorably to quantitative research" (p. 182). Jackson notes a resistance to this paradigm emerging in the 1970s, which drew on the radical critique of positivist science forwarded by political philosophers like Jaques Derrida and Michel Foucault.

By way of contrast, the contemporary qualitative research paradigm is typically framed within the interpretivist and constructivist traditions (Christiaensen, 2001). This paradigm eschews notions of singular objective truths, viewing social phenomena as historically, culturally and epistemologically contingent—that is, as a function of time, society and the

researcher herself. Thus juxtaposed, the qualitative-quantitative dichotomy may be "as much about the kind of reality we want to discover as it is about methodology" (p. 70).

Nonetheless, as Jackson (2015) observes, the quantitative and qualitative research paradigms each include myriad techniques for gathering and interpreting data, many of which (the thematic coding and collation of social observations, for example) fit comfortably within both domains. Nonetheless, this research bears no illusions about the objectivity of quantitative methods. All data relevant to the present research—including the statistical analysis of secondary longitudinal survey data—are unambiguously tinged with human discretion. These data reflect and obscure the myriad subjective determinations of researchers at every stage, from conception to collection, collation and interpretation. By extension, all of the analyses put forward in this research—whether by quantitative or qualitative means— are necessarily derived under the influence of prevailing social constructions and my own derivative biases, constraints and ignorances. What, then, of the purported value of triangulation?

On Deleuze and Guattari (1994) West (2019) locates the essential function of scientific research alongside that of philosophy, and in so doing, offers a distinct take on the epistemological contradictions apparent at the quantitative-qualitative nexus:

> Philosophers create systems of concepts that give us one version of reality—one perspective that might be useful to us. A very similar charge is being levelled here about the history of science. Science is not discovering and accessing the intrinsic structure of the universe. Science is creating one version of understanding what we have access to. And what necessarily goes along with that is that this understanding is always relative to the perspective of the observer—which is always a person, who is also embedded in a set of cultural biases and a current set of scientific paradigms that their time accepts and proceeds from.

I agree and contend further that these evolving systems of understanding leverage a uniquely human proclivity for identifying patterns in things. In the quantitative domain, the veracity of observed patterns is evaluated as a function of their statistical likelihood (itself a system of patterns). In the qualitative realm, patterns of expression and behaviour are categorised as recurrent 'themes.' In this sense, 'triangulation' may be seen simply as the act of identifying confirmatory patterns through other means, of embedding phenomena in a coherent—if contingent—system of understanding.

Finally, on Hacking's (1999) *The social construction of what?*, Rorty (1999) articulates the fundamental question: "Are the longest-lasting and most frequently relied upon theories stable because they match a stable reality, or because scientists get together to keep them

stable, as politicians get together to keep existing political arrangements intact?" (n.p.). As a work of critical scholarship, I endeavour to consistently foreground the privileging of quantitative evidence forms in Australia's contemporary macro-political discourses. Yet to assert one's voice in the language of the hegemony—even with the stoutest critical intent— is to be a wilful participant in the exercise of social power. To dabble in these technologies is, at best, simultaneously counter-hegemonic and compliant. I offer no resolution to this tension, just recognition, and proceed with a sense of humour and self-doubt always humming in the background.

Research questions

FLOs are dedicated to the re-engagement of marginalised young people for whom 'mainstream' education has not worked well. Each of the sites included in this research explicitly recognise educational disenfranchisement as a corollary of socioeconomic disadvantage and aim in response to engender change—in the lives of disadvantaged young people and in the systems that have alienated them. Illuminating flexible learning provision as an undertaking of social transformation allows for a better understanding of educational praxis at the margins, as well as the potential of FLOs to affect systemic change throughout the educational system and beyond. This dissertation is therefore guided by two principal research questions: (1) In what ways do practitioners operationalise critical professional subjectivities in FLOs? and (2) How may practitioners' conceptions of educational value be empirically substantiated through the use of quantitative means?

Analytical framework

This research entertains the notion that educators feel under pressure to demonstrate value— from decision-makers in the government expecting 'value for money,' to their own parent organisations in pursuit of systemic reform. Part I of the dissertation aims to illuminate the ways in which ostensible pressures to demonstrate impact affect educational praxis in FLOs—namely, the formation and expression of practitioners' professional self-concept, and the means by which flexible learning practitioners assess and articulate the impact of their work. The first task of the research is therefore to locate FLOs within Australia's prevailing neoliberal political economy. Following this macro-level exposition, the thesis narrows its focus to the programmatic level in order to shed light on FLOs as sites of resistance to Australia's social, economic and political status quo.

The analysis of flexible learning practitioners' subjectivities draws extensively upon the concept of 'performativity,' extended from Lyotard's intended meaning as "a technology, a

culture and a mode of regulation" of the capitalist superstructure "[…] that employs judgements, comparisons and displays as means of control, attrition and change" to include also those 'judgements, comparisons and displays' at work in the institutionalised resistance to the neoliberal political economy of education (Ball, 2000, p. 1). There are two levels at which this concept is employed within this research. First, flexible learning provision is contextualised against the performativities of the neoliberal superstructure—a social, political and economic cultural paradigm that informs understandings of value and the necessary contribution to be made in the educational sphere to the production and reproduction of that value. Second, is the formalised resistance of educational organisations that have recognised the disenfranchising character of the neoliberal superstructure. FLOs are shown to articulate alternative depictions of value, ways of being and doing that accord with this vision, and new technologies of assessment and measurement against which they measure their impact. This response—this attempt to conceive of and operationalise an alternative paradigm of value and action—is not abstracted from the superstructure. All resistance is necessarily informed by broader social processes. As a 'critical' response to dominant social processes, however, flexible learning would test the bounds of the social imaginary to forge new and wider spaces for resistance and the assertion of power where it has been systematically repressed. This research aims to depict the political action of education at the margins—"to establish the existence of an 'attitude' and an 'ethical framework'" within which flexible learning practitioners contest "what it means 'to be a teacher'" (Ball, 2000, p. 2).

Chapter 1 serves to contextualise the role of FLOs in Australia's neoliberal political economy. It brings together critical scholarship on recent moves towards the centralisation, standardisation and marketisation of education in Australia. The chapter explores the resulting concentration of disadvantage in low SES-area schools and pressures to 'exit' low performing students—increasingly into the flexible learning sector. Discussion also draws on research concerning the proliferation of high-stakes, competitive testing in Australia and the outsized influence of national and international assessment regimes on local educational policymaking and praxis. The standardised, quantitative assessment currently privileged by policymakers is contrasted with FLOs' holistic approach to the appraisal of educational outcomes. The chapter concludes with the growing call among critical scholars to resist the notion of education as human capital production and the reductive modes of thinking that go along with it.

As sites of critical educational practice, FLOs aim to interrupt the inter-dependent cycles of disadvantage, disengagement and poverty. Indeed, such counter-hegemonic aims are often

formalised in FLOs' foundational ethos, mission statements and official policies. Yet, to varying degrees, the modes by which such policies are enacted are subject to deliberation among the practitioners themselves. Grounded upon Habermas's (1971) conception of education in the service of human beings' 'emancipatory interest,' Chapter 2 explores the ways in which flexible learning practitioners embody, enact and resist the policies of their parent organisations. The chapter employs a hybrid discourse analysis methodology to unpack interviews with practitioners at two flexible learning sites. Informed by Fraser's (1990) theorisation of the 'subaltern counter-public,' the chapter highlights the mediating role of FLOs' parent institutions in shaping practitioners' professional self-concept as educators and as agents of social change.

Extending the research scope, Chapter 3 draws on interviews with flexible learning practitioners at eight sites across Australia in order to enumerate the outcomes valued in FLOs, as well as the various evidence forms cited by practitioners to substantiate these outcomes. Framing success as 'distance travelled' (i.e., an individual's progress relative to her own starting point), practitioners demonstrate critical awareness of the social and structural mechanisms by which young people are marginalised from mainstream schooling. Holistic assessment practices also reveal practitioners' efforts to expand the terms of reference by which educational outcomes may be validated in alternative education settings.

By clarifying the role of FLOs within the neoliberal social, economic and political contexts that inform the appraisal of educational outcomes, the valuation exercise itself may be reconceived. Part II of the dissertation utilises quantitative methods to estimate the long-term benefits associated with holistic pedagogies for educational re-engagement. Importantly, the models presented take into account the disadvantage experienced by flexible learning participants. Above all, these empirical applications are intended to demonstrate value on flexible learning practitioners' own terms and to expand the frame of reference through which educational outcomes may be credibly assessed in Australia.

Just as Chapter 1 serves to contextualise the qualitative investigations of Chapter 2 and Chapter 3, Chapter 4 provides important context for the quantitative undertakings of Chapter 5 and Chapter 6. Few studies have systematically evaluated FLOs' ability to improve the long-term social and economic outcomes of students at-risk of educational disengagement. Chapter 4 begins with a discussion of the prevailing models by which returns to schooling have traditionally been assessed and queries these models' strengths and weaknesses through a methodological review of their underlying econometric bases. Based upon this review—as well as the findings of Part I—Chapter 4 proposes the use of propensity score matching as

an alternative valuation method able to empirically substantiate the long-term impact of flexible learning outcomes.

Given the profound conditions of disadvantage faced by members of the flexible learning cohort, practitioners often point to attendance itself as a valuable and noteworthy outcome. Due to a lack of longitudinal data on the life pathways traversed by flexible learning participants over time, however, the long-term effects of their continuous engagement as young people remains obscured. Chapter 5 utilises propensity score matching, a matching estimators technique for the estimation of treatment effects, to assess the impact of keeping disadvantaged young people in education, training or employment on their subsequent risk of experiencing disengagement as young adults. The study utilises data from the 2003 cohort of the Longitudinal Surveys of Australian Youth (LSAY), which follows more than 3,000 students over a ten-year period. Findings suggest that FLOs' efforts to keep disadvantaged young people engaged in upper secondary education until the school leaving age bear positive impacts for participants independent of their academic achievement and psychosocial outcomes in such programs.

FLOs also emphasise young people's sense of belonging within the learning environment as a requisite of educational success and a critical ingredient of their future social and economic inclusion. Despite the prominence accorded to young people's affective engagement in FLOs, however, scant research has endeavoured to quantify the long-term impacts of students' sense of belonging with regard to their subsequent quality of life. Chapter 6 investigates the effects of students' sense of belonging at school at age 15/16 on their life satisfaction and mental and emotional wellbeing as young adults. Also using propensity score matching and data from LSAY's 2003 cohort, findings suggest that increasing students' sense of belonging entails important psychosocial benefits that extend well beyond their time at school.

The empirical chapters of Part I and Part II of the thesis are followed by a short Conclusion, summarising the dissertation's central findings and main theoretical and methodological contributions to critical educational scholarship.

PART I

To map our tomorrows with the help of data supplied by our yesterdays means ignoring the basic element of the future which is its complete nonexistence. The giddy rush of the present into this vacuum is mistaken by us for a rational movement.

The History Professor
Bend Sinister, Vladimir Nabokov (1947)

1. FLEXIBLE LEARNING OPTIONS IN THE NEOLIBERAL EDUCATIONAL LANDSCAPE[†]

INTRODUCTION

To speak about neoliberalism in education is to speak about values. As Connell (2015) and others have repeatedly asserted, "the market agenda and the spread of educational markets raise questions about the nature of education itself, about the purpose of our work as educators" (p. 186). Interrogating the purpose of education is especially pertinent at present, given that the neoliberal reforms remaking the global educational landscape tend to limit, rather than expand, democratic participation in education (Clarke, 2012a). In Australia, this sweeping reconfiguration, often cast as inevitable and rational, has all but subsumed policy discourses concerning the desired ends of education. Yet this transformation is no monolith, unfolding in relation to particular local histories, social mores and power structures (Rizvi & Lingard, 2009). Furthermore, educators throughout the world have contested their interpellation as the subjects of neoliberalism's highly cognisant discourses (see Althusser, 1971). Through an enduring dialectic, critical educational scholars and practitioners continue to challenge economic functionalism as the sole underlying purpose of schooling. As the neoliberal swell leaves behind an ever-growing number of marginalised young people (te Riele, 2017), normative perceptions concerning the intersection of education and the market are yet resisted.

In Australia, such resistance is increasingly embodied in an expanding number of FLOs, inclusive educational programs working to re-engage disadvantaged young people in formal education. The Youth+ Institute—a research and advocacy initiative of Edmund Rice Education Australia, the nation's single largest institutional provider of FLOs—emphasises FLOs' role in "the promotion of educational equity for disenfranchised young people" (2019, n.p.). Similarly, the Australian Association for Flexible and Inclusive Education (AAFIE)—the sector's fledgling peak body—makes explicit the role of FLOs in "doing school differently," in order to challenge the educational "disenfranchisement" of marginalised young people (2019, n.p.).

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In a comprehensive review of Australia's flexible learning sector, te Riele (2014) charted over 900 FLOs serving more than 70,000 young people annually, underscoring the critical role these programs play in extending the educational horizons of a large number of disenfranchised learners throughout Australia (p. 12).[1] Te Riele identified three principal modes of flexible learning: programs embedded within mainstream schools, including elective, irregular and extracurricular classes and activities promoting the retention of young people at risk of early school leaving; vocational education and training programs aimed at disadvantaged young people; and stand-alone, typically accredited alternative education programs characterised by the holistic promotion of wellbeing and learning outcomes among highly disadvantaged young people (p. 15). While many FLOs are registered as schools, others are embedded as distinct programs within established educational institutions or non-governmental organizations. Common to all such programs is the mission to prevent the educational disengagement of highly disadvantaged young people, with strong emphasis on enhancing marginalised young people's sense of belonging and provision of comprehensive mental and emotional wellbeing support (McGinty & Brader, 2005; M. Mills & McGregor, 2014; Myconos et al., 2016; te Riele, 2014). Less clear, is the extent to which flexible learning practitioners espouse the critical dispositions forwarded by the sector's most prominent institutional stakeholders.

Whilst state and federal authorities have enhanced the provision of alternative education and training for disengaged young people, market-based reforms are simultaneously pushing students out of mainstream schools into this burgeoning sector (te Riele, 2017). Hence in Australia's modern educational marketplace, alternative education represents both converse and corollary (Vadeboncoeur, 2009). Notwithstanding their critique of the educational disenfranchisement of young people, FLOs may also be seen as a by-product of neoliberal educational policy.

A rich description of critical resistance within Australian FLOs requires an appreciation of the macro-level socioeconomic and political contexts within which flexible learning practitioners operate. This chapter aims to locate FLOs within Australia's prevailing neoliberal political economy and shed light on their potential as sites of resistance to contemporary market fundamentalism. It brings together critical scholarship on the evolution of the country's neoliberal zeitgeist, spanning recent moves towards the centralisation, standardisation and marketisation of education in Australia. The chapter explores the resulting concentration of disadvantage in low SES area schools and pressures to 'exit' low performing students, increasingly into the flexible learning sector. Discussion also draws on research concerning the proliferation of high-stakes, competitive testing in Australia and the

outsized influence of national and international assessment regimes on local educational policymaking and praxis. The standardised, quantitative assessment currently privileged by policymakers is contrasted with an alternative, more holistic approach to the appraisal of educational outcomes. The chapter concludes with the growing call among critical scholars to resist the notion of education as human capital production and the reductive socio-cultural imaginaries that go along with it.

THE NEOLIBERALISATION OF AUSTRALIAN EDUCATION

The neoliberal paradigm is founded foremost upon the economic theory of competition. According to this rationale, free competition between market actors—driven exclusively by financial self-interest—forces the exit of all but the most 'efficient' firms. The resulting long-term equilibrium represents the optimal allocation of capital, thus maximising social welfare (i.e., consumer and producer 'surplus'). In the realm of primary and secondary education, the market logic frames schools as firms, with students and their families in the role of the exacting 'consumer.' Schools cater to the demands of these consumers, with those institutions unable to provide value on the dollar eventually forced from the marketplace. Facilitating competition by enabling greater 'consumer choice' (Buras & Apple, 2005) is thereby purported to drive school improvement, innovation and cost-cutting. In Australia, neoliberal educational reforms have been markedly successful in bringing about the marketisation of schooling and a broad reconceptualisation of schools as competitive firms (Bartlett et al., 2002; Rizvi & Lingard, 2009). As elsewhere, the marketisation of Australian education has entailed a 'commoditisation' of access to high quality education (Connell, 2013) and accelerated the privatisation of schooling and other educational services (Burch, 2006). The incorporation of high-stakes competitive testing (Hardy, 2015) has reinforced the technocratisation of educational policymaking in Australia (Gorur, 2011), aiding an unprecedented centralisation of policy over curriculum, pedagogy and assessment (Lingard, 2010). Furthermore, standardisation has encouraged the deprofessionalisation and technicisation of teaching (Connell, 2009) and school-level educational assessment (Stevenson, 2007).

Savage's (2011) synthesis of contemporary Australian educational policy discourses—which have produced the Melbourne Declaration on Educational Goals for Young Australians (MCEETYA, 2008) and the Victorian State Blueprint for Education and Early Childhood Development (DEECD, 2008), among other nationally resonant documents—reveals an intentional framing of free market enterprise "as the prime mechanism through which the realms of social equity and economic prosperity can be managed" (p. 37).

Australia's particular interpretation of neoliberalism, characterised by Savage as a kind of 'social capitalism' in the tradition of British Third Way politics, extends the role of the state beyond facilitator of economic opportunity to arbiter of values. A type of benevolent, 'neoliberalism-lite,' social capitalism diverges from free-market orthodoxy to recognise market failures not as self-correcting aberrations, but as systemic failures to recognise and promote the common good. Nonetheless, prescribed remedies remain firmly rooted in the logics of the free market. Increasing the skills of workers, for example, is seen as the most efficient means by which disadvantaged communities may be economically integrated. By extension, education is held up as the centrepiece of social capitalist reform—a catalyst of socioeconomic sustainability and inclusion in an essentially fair, if temporarily disequilibrious, society (Bennett, 1976).

Raewyn Connell, who has written extensively on the corrosive effects of neoliberal value systems and their reorganising effects on education, traces Australia's path of neoliberal educational reform to its dramatic expansion of federal public funding for Catholic and private schools. The repositioning of schools as competitive firms, she notes, would not have been possible without the confluence of the public and private educational sectors enacted through the bipartisan school funding reforms of the 1960s and 70s (Connell, 2013, p. 103).[2] Buras and Apple (2005) observe that public funding of the private school sector has exacerbated the stratification of Australian schools along the lines of race and socioeconomic status, as class-dependent mobilities and the liberalised collection of school fees leave those of limited means behind in ever-greater concentrations of disadvantage. This so-called 'residualisation' (see Lamb et al., 2015) of socioeconomic disadvantage in low SES area schools further entrenches the privilege of young people whose families possess disproportionately greater means of self-actualisation in competitive markets (Ball et al., 1996; Bartlett et al., 2002; Savage, 2011).

Gonski et al.'s *Review of Funding for Schooling* (DEEWR, 2011)—whose influence within Australia's national educational policy discourse can hardly be overstated—acknowledged growing community concerns about "Australia's competitive market for school education," writing

> These concerns centre on the alleged segregation of students into schools with markedly differing socioeconomic compositions, largely based on the ability and willingness of parents to pay fees. This segregation is considered to have been exacerbated by the government sector's gradual loss in market share to the non-government sector, resulting in the government sector educating an increasing proportion of educationally disadvantaged students. It is suggested that this has

impacted on the capacity of some government schools to provide a quality education for all students. (p. 12)

The report's central recommendations—foremost that public funding for schools be based on socioeconomic need—have comprised a cornerstone of contemporary educational policy in Australia and remain to the present a focal point of bipartisan wrangling over school funding reform.

Winning and losing

Lingard (2010) underscores the advent of the Labor government in 2007 as a major turning point with regard to educational policy in Australia. Under Rudd, the Commonwealth took concrete steps to wrest control over educational policy long held by the states. Changes introduced by the Rudd government included the creation of the Australian Curriculum, Assessment and Reporting Authority (ACARA), tasked with establishing federal guidelines for an emerging national curriculum whose rationale conspicuously emphasised economic competitiveness. Principal among subsequent reforms has been the introduction of the National Assessment Program—Literacy and Numeracy (NAPLAN), a mandatory standardised testing regime for all students in years three, five, seven and nine. ACARA also hosts the My School website, an online clearinghouse of statistical data designed to enable comparison of schools on the basis of their socioeconomic makeup, spending and aggregated NAPLAN scores. Controversially, performance data made available through My School were swiftly employed by media outlets to construct 'league tables.' enabling a public "'naming' and 'shaming' of poorly performing schools" (p. 130).

In a meta-synthesis of qualitative studies to determine the pedagogical impacts of high stakes testing in the United States, Au (2007) concluded that teachers often narrowed curricula to tested subjects at the expense of other potential foci, including young people's psychosocial development. Researching teacher responses to standardised assessment in Queensland, Hardy (2015) found that teachers experienced significant pressure to improve student performance on NAPLAN. Schools were observed to reallocate significant teaching and other resources to test preparation activities. Not only were educators shown to emphasise test content, they frequently taught strategies for effective test-taking. NAPLAN informed curricular priorities in the classroom and came to be seen as a valued educational end in its own right (what Hardy referred to as a "test-centric logic of practice") (p. 335). Regular displacement of staff caused disruption to teaching and learning, as teachers and students were required to continually readjust to the withdrawal of classroom resources only made available on a temporary basis to improve aggregated testing outcomes.

Furthermore, Queensland's explicit policy goal of increasing the number of students with scores in the uppermost 'bands' was shown to draw schools' financial, technical and professional resources towards the needs of students currently in the middle range of performance (i.e., young people with the greatest immediate potential to move into the upper ranks) (Hardy, 2015). Such policy imperatives set students in direct competition with each another over classroom resources, potentially disenfranchising low performing students by reinforcing school-level incentives to redirect assets away from the students who need them most.

Inter-school competitive pressures to increase NAPLAN scores, year 12 completion rates and the transition of young people into tertiary education have likewise engendered perverse incentives to trim undesired students from school rosters. Neoliberal reforms in Australia have greatly enhanced schools' agency to exit young people likely to compromise performance targets (te Riele, 2014). Informed by the rhetoric of autonomy and personal choice, school administrators have been empowered to (often aggressively) negotiate the withdrawal of poorly performing students, depositing them into alternative educational streams.[3]

Such developments, Connell (2013) argues, have enabled the commoditisation of access to quality education. Through competitive testing, among other mechanisms, schools may be differentiated and marketed to consumers in pursuit of individual advantage. "The creation of a system of winners and losers," Connell (2015) laments,

> is fundamentally at odds with education. The exclusive rights needed to establish ownership of something, and therefore the possibility of buying and selling it, are antithetical to the inclusive character of educational relationships. (p. 16)

While advocates of My School purport greater parental involvement in school improvement processes (Grattan, 2010), Savage (2011), C. Mills (2015) and others observe that the website functions primarily to engender inter-school competition and stimulate family mobilities in the name of 'school choice.' Yet actualisation of choice in response to school performance is heavily skewed toward the socioeconomically advantaged. Indeed, the transactional rhetoric of consumption and choice favours an elite already privileged by the market economy (Bartlett et al., 2002). A significant amount of cultural and economic capital is required to assess schools' relative performance and affect in response the relocation of an entire household. The asymmetry of resulting mobilities is reinforced by deregulated selection into 'specialised' schools that promote tertiary educational trajectories (druthers closely correlated with wealth and class privilege) (Angus, 2003). Though branded as 'choice,' there seems to be scant consideration among Australian policymakers of the

narrowing range of options from which those of limited financial means may actually choose. Despite stated intentions, the marketisation of education has in practice served to preserve and strengthen traditional class privilege.

The foregrounding of middle-class cultural capital (for example, by My School)—and concomitant exodus of advantaged students from 'low-performing' schools—entrenches long-established socioeconomic hierarchies in a self-reinforcing cycle. Insofar as mainstream education embodies society's prevailing value system, "exposure to the educative effects of the cultural capital of dominant groups […] is necessary for success at school" (C. Mills, 2015, p. 150). Indeed, the link between schools' socioeconomic status and individual academic achievement has been extensively documented. According to the Australian Council for Educational Research (ACER), young people attending high SES schools tend to outperform their counterparts in low SES schools, irrespective of the students' individual socioeconomic backgrounds (S. Thomson et al., 2017, p. 30, in Greenwell, 2017).

In light of these links, Australian policymakers have legislated enhanced provision of alternative educational pathways for young people excluded from education (via FLOs, for example).[4] The addition of 'release valves' has allowed the state to maintain fidelity to the market in line with its commitments concerning equity of opportunity. That the reshaping of schools as competitive firms has instigated a nationwide purge of disadvantaged young people from mainstream education is ostensibly irrelevant—the role of the social capitalist state—as facilitator of the market and guarantor of Australia's social contract—is to ensure that all are accounted for, none are ejected from the system (except by their individual volition) and that even society's most wayward may be eventually reincorporated as productive members of the economic fold.

The imperatives of competition have likewise reconfigured many of education's traditional socialisation functions. Commissioned in the production of human capital for an emerging 'knowledge economy,' education in the neoliberal epoch entails imbuing individuals not only with particular professional skills and capacities, but also the requisite temperaments and dispositions of an enthusiastically engaged workforce (Rizvi & Lingard, 2009). Connell (2015) suggests that the inadequate pastoral care provided in mainstream Australian schools is not simply a by-product of insufficient school funding, but an intentional narrowing of the conception of education. Supporting students' physical, mental and emotional wellbeing increasingly falls outside the remit of teachers' official and resourced duties because such functions are practically unsupported as a matter of educational policy. The lack of funds for pastoral care is therefore not a neutral consequence of across-the-board tightening of school budgets, but a conscious reallocation of priorities

that reflects a market-based outlook on the underlying purpose of education. Cynically, the principal function of education is thereby reduced to economic growth, the benefits of which are purportedly self-evident (Raworth, 2012).

DEPOLITICISING EDUCATION

It is commonly argued by critical scholars that a society tends to measure that which is relatively easy to measure (i.e., that we count that which we are able to count) (Biesta, 2010a). This sentiment implies two important corollaries: 1) by virtue of the relative ease of its collection, society tends to elevate enumerative forms of evidence in policymaking and 2) policymakers prioritise the management of activities that can be evaluated through such measurement (Gittins, 2013). Welch's (2015) criticism of the modern preoccupation with 'objective' statistical evidence goes further. Society, Welch argues, gives greater credence to enumerative forms of evidence in educational policymaking not because they are more readily come by and synthesised, but because these evidence forms service an ecumenical policy agenda to marketise education, including the commoditisation of its estimable outputs. Indeed, as anyone who has delved into the derivation of maximum likelihood estimates for the international comparison of latent intellectual ability can attest, the quantitative assessment of schooling outcomes is anything but simple.

The Programme for International Student Assessment (PISA)

Every three years, 15-year-old young people representing some 72 nations undertake the Organisation for Economic Co-operation and Development's (OECD) Programme of International Student Assessment (PISA) to compare the performance of educational systems on a truly global scale. Students are tested in the domains of literacy, numeracy and science, with each domain given greater depth of focus on a rotating basis. Aggregated results are purported to reflect participating states' future economic competitiveness, based on the intellectual capacities of each nation's developing workforce. In Australia, policymakers have imbued the country's test performance and rank with substantial weight; its middling triennial results are consistently framed in the policy sphere as a matter worthy of great national angst and consternation.

This massive enterprise depends, of course, upon an international consensus concerning the essential comparability of a narrow range of students' scholastic aptitudes irrespective of their diverse histories, languages and cultures. Such notions of 'universality' stand in stark contrast to Biesta's (2010b) characterisation of the educational process as open, recursive and semiotic—i.e., as inextricable from the social settings within which it unfolds,

dynamically dependent upon the relationships and interactions between teacher and learner, and ultimately about the communication of symbolic meanings, rather than representations of reality.

In the academic literature, quantifiable student achievements (e.g., literacy, numeracy, retention, matriculation) are often granted the status of 'hard' outcomes, against the contextual, qualitative indications of schooling's so-called 'soft,' psychosocial benefits (see, for example, Dewson et al., 2000; Zepke & Leach, 2010). Amplified by the media, quantitative performance data are provided greater exposure and credence, foregrounding market-based values in the public discourse. The standardised measurement of academic outcomes for inter-school and inter-system comparison is thereby not simply responsive to—but also constitutive of—social mores aligned with the free market economy.

Whilst the debate concerning the inter-personal comparability of latent and subjective constructs (e.g., cognitive ability and quality of life, respectively) remains pertinent to economics and other social sciences (Kristoffersen, 2010), a similar level of dubiety has not been levelled at prevailing quantitative methods for the international comparison of literacy, numeracy and science aptitude. In particular, high sample exclusion rates and estimation bias associated with the imputation of 'missing data' for multiple-matrix sampling (Rutkowski & Rutkowski, 2016) has failed to engender any noteworthy debate among Australian policymakers with regard to the reliability of population sub-group estimates or of national PISA rankings more generally.

In her illuminating, behind-the-scenes explication of PISA processes and outputs, Gorur (2011) exposes an artificial bifurcation of educational research and politics that renders the program's knowledge products neither politically neutral nor scientifically objective. Quoting the recollections of a senior PISA official regarding the challenges of establishing international consensus on what to test, Gorur establishes that PISA has always "been about values as much as 'facts', politics as much as 'Science'" (p. 82). Gorur details the heated disputes by which test items are included, articulated and omitted, revealing that PISA's determination to assess reading, science and maths—but not civics or writing composition—reflects a perceived lack of universality concerning the meanings of these excised educational domains. Ironically, the very notion of universal standards promoted by PISA and its adherents belies the unique national histories, priorities and circumstances according to which the test itself is constructed (Gorur, 2011). With the inclusion of content strongly contested by participating states, PISA channels the input of a broad range of national representatives and professional stakeholders through a committee of a mere handful of assessment experts. The former communicate what they would and would not like the test to

include, the latter determine what is technically feasible and most desirable given the framework the committee itself has previously laid out (Gorur, 2011). This filtering of nations' input through committees effectively obscures the essentially political processes by which the end product is derived, as well as the disproportionate influence of particular national stakeholders (e.g., through representation on committees that determine these very processes).

Gorur notes that over time, the OECD has demonstrated ever-greater assuredness in the usefulness of PISA data to inform educational policy at the national level (Gorur, 2011, p. 80). As the program has risen to prominence over several iterations, caution over the interpretation of results has given way to advocacy—statistical correlations between socio-demographic background, school characteristics, the learning environment and students' test scores are now upheld as the most scientifically valid evidence upon which states' educational policy may be based.

As policy tools, PISA and other forms of standardised assessment have facilitated a 'technocratisation' of policymaking in Australia. "The trend towards a reliance on [statistical evidence]," Welch (2015) posits,

> […] is part of a wider re-orientation of policy-making and policy makers, towards a more technocratic form, in which decisions tend to be implemented in the most efficient and economically lean manner, rather than systematically engaging with ethical principles. (p. 70)

With political inputs transformed into apolitical outputs, educational policy may be re-envisioned as a straightforward matter of redirecting capital to more efficient ends. The standardised test serves as a random sampling of the production line; relative aggregated proficiencies provide a benchmark against which national labour pools' absolute and comparative advantages may be assessed. Questions concerning the underlying purpose of education are largely swept aside.

Teaching and learning

In his critique of the Labor government's 'education revolution' (Rudd & Gillard, 2008), Clarke (2012a) explicates some of the means by which Australia's education policy discourse has been depoliticised. Framed as inevitable and couched in unassuming notions of 'value-for-money,' Australian policy proclamations literally assert and continually reiterate the challenging 'realities' of the global economic marketplace and the imperatives of educational reform in the service of international economic competitiveness.[5] Through constant repetition, Australia's educational policy discourse has been steered away from a critical

response to this global upheaval in favour of technical adaptations and schooling reforms. Whether or not schools should be wholly impressed into the service of the national economy has not been a matter of substantive political debate.

According to Vickers (2015), in its rush to implement evidence-based policymaking, the Council of Australian Governments (CoAG) leveraged a select subset of research findings to support its extant preference for enumerative teacher accountability frameworks. The well-established influence of socio-demographic factors with regard to student academic achievement was downplayed in favour of less nuanced and more easily measured indicators of 'teacher quality.'[6]

Connell (2009) sees in Australia a virtual consensus regarding the perceived importance of teacher quality to student achievement, highlighting an implicit suggestion common to the public discourse that other, more dominant influences on divergent student outcomes— namely, socioeconomic disparity—are beyond the remit of public policy intervention. Yet rather than invest substantially in teacher education, Connell argues, Australia's policy response—typical elsewhere in the global north—has been to impose ever more stringent teacher accountability frameworks. According to Connell, these regimes of control are predicated upon a novel reliance on multivariate statistical analyses associating high academic achievement (assessed through standardised testing) with particular 'best practices' in the classroom. "The consequences for teacher education," she asserts,

> are potentially very large. A list of auditable competencies can become the whole rationale of a teacher education programme. There is no need, in such a model, for any conception of Education as an intellectual discipline. There is no need for cultural critique, since the market, aggregating individual choices, decides what services are wanted and what are not. (Connell, 2009, p. 217)

Connell's assessment implies that new, streamlined standards for the accreditation of Australian teachers serve not only to guide teachers' practices, but also to mould the prevailing values of their profession. By weeding out dissenting voices concerning particular policies' stated intention and self-declared efficacy, a consensus may be consolidated around the value and purpose of education in accordance with prevailing political wisdom. She therefore challenges the neoliberal individuation of the teaching profession—from its insistence that the teacher foster her entrepreneurial self to the erosion of teachers' professional identity and occupational culture. Her insistence upon the collective agency of teachers is a call to restore teaching as a social undertaking and reassert community voice over the meaning and value of education.

Through their work on 'resistance' to neoliberal modes of subjectivity and performativity, Ball and Olmedo (2013) offer a useful lens through which scholars may critique the disempowering effects of standardised assessment on teachers. Not only does the homogenising, objectifying nature of the quantitative lexicon lend itself poorly to subjective interpretation and critical evaluation, the tools themselves are the province of a small group of (typically external) specialists. Furthermore, the aggregation of data for inter-school and inter-system comparison precludes meaningful consideration of the particular contexts and constraints within which education unfolds. Judgement of educators is swift, detached and without recourse—in a word, 'undemocratic.'

RESTORING THE POLITICAL TO EDUCATION

Hall and McGinity (2015) present a seemingly pessimistic take on the possibilities for resistance to neoliberal market reforms among teachers in the UK. Spaces for resistance in mainstream schools are rapidly diminishing, they argue, as the neoliberal tide sweeps old rationalities into retirement and relegates meaningful dissent to the margins of teachers' imaginaries. Notwithstanding the tension arising from some individuals' professional values and new modes of public management in schools, resistance is effectively shut down as teachers come to incorporate neoliberal modes not just as a matter of practical necessity and expediency, but within their professional identities.

Neoliberalism's theoretical appeal is inextricable from the foundational values of liberal democracies: namely, that markets maximise opportunity and that self-actualisation is ultimately an entrepreneurial enterprise. Proponents of the technocratisation of educational policy thus promote a 'common sense' outlook on educational outcomes that are generally considered intuitive. Indeed, its perceived obviousness is a hallmark of neoliberalism's global success (Harvey, 2005). Yet, as Biesta (2010a) asserts, matters of assessment cannot be separated from questions of the purpose of education. The technicisation of educational assessment through the proliferation of high stakes testing and standardised teacher accountability frameworks has not rendered these forms of educational research 'value neutral.' On the contrary, assessment remains a fundamentally political act.

In Australia, contemporary educational standards and assessment are neoliberal in the sense that they have been derived overwhelmingly in accordance with market logics. By limiting the scope of outcomes that are validated in the public discourse, education's social equity functions may be subordinated to its economic functionalism. Although often measured, education's psychosocial benefits are given short shrift as priorities of educational policymaking. Furthermore, by commoditising access to quality education, responsibility for

overcoming of socioeconomic barriers to prosperity has been laid squarely upon the individual. Thus, many of Australia's political commitments to equity may be laid bare as largely rhetorical.

In Australia, the proliferation of standardised assessment has exacerbated the gap between the stated intention and lived outcome of modern educational policy. Explicating the methodological implications of a 'critical-realism' approach to studies of educational evaluation, Reimann (2015) reminds the reader that assessment cannot be abstracted from the greater subjective whole of the schooling experience. Thus, a holistic understanding of the dynamic contexts within which teaching and learning unfold is critical to identifying the links between pedagogy and learning outcomes. The value positions inherent to high stakes testing must therefore be exposed and kept under the spotlight of a critical public discourse. According to Carr (2000),

> However non-partisan some educational researchers believe their research to be, it always conveys an educational commitment even if this is unintended and even though it remains unacknowledged and undisclosed. (p. 440)

Extending Gouldner's (1968) criticism of a purely 'operational' definition of research objectivity (in Carr, 2000), the supposed neutrality of standardised educational assessment may be challenged not only on procedural grounds, but also on the basis of its overt and implicit meanings. To the extent that high stakes testing in the service of student and school comparison is earnestly undertaken with the goal of spurring school improvement, proponents of these methods must reconcile the value positions from which these methods spring with their empirical outcomes. The perennial deployment of NAPLAN, among other recent reforms, has forwarded an observable marketisation of Australian education and residualisation of disadvantage in low SES schools; these developments cannot be dismissed as by-products of a benign intention (M. Mills et al., 2015). To maintain a policy in light of its known outcomes is to endorse those outcomes.

Stevenson's (2007) work with teachers in the UK highlights the dynamic processes through which educational policy is formulated, implemented, contested and reshaped. As elsewhere, neoliberal educational reform in the UK consolidated simplistic conceptualisations of educational 'best-practice' and entailed a narrowing of teachers' opportunities to exercise their own professional judgement in the classroom. Importantly, reforms tended to diminish teachers' traditional role in the provision of pastoral care as part of a holistic educational practice. Yet Stevenson's analysis of union responses to market-induced tensions in the schooling sector underscores the individual and collective agency of educators in policymaking processes and of the potential for teachers to assert an alternative

vision of the purpose of education and its professional—rather than technical—praxis. However overwhelming they loom, market-based educational reforms are neither linear nor inexorable. Policy without performance is moot (Ball et al., 2012), and educators the world over retain meaningful influence in their classrooms, schools and communities.

Among the growing chorus of critical scholars calling for an alternative path forward, Lingard (2010) calls for "a rejection of high-stakes testing and a competitive schooling market as the way to better and more equitable student outcomes" (p. 133). To enhance equity in education, he argues, school curriculum and assessment regimes must formally incorporate a broader spectrum of valued educational outcomes, as well as methodologically appropriate means by which this more holistic set of outcomes may be validated. C. Mills (2015) calls for "empirical research that focuses upon delivering specific suggestions for responses to the mechanisms of symbolic violence and social reproduction" that reinforce class-based advantage in education (p. 156). And whilst neoliberalism serves to delimit educators' self-conceptualisation, it also "opens new spaces for struggle and resistance" (Ball & Olmedo, 2013, p. 88). "This re-imagining of power," Ball and Olmedo argue,

> involves bringing the teacher back into the sphere of the political, as an actor who takes up a position in relation to new discourses and truths and who looks critically at the meaning and enactment of policy. It implies an analysis of the structural conditions of the educational system alongside a critical scrutiny of our own practices and beliefs. (p. 92)

Connell (2015) suggests an alternative conception of schooling through which a society might harness the relationships embedded in radical educational practice to respond to the deprivations of the market logic. Rejecting the reductivist view of education as merely social reproduction, she asserts the central role of education in the realisation of social change, in particular its potential to actualise the promise of equity:

> Bringing history more centrally into the frame, we arrive at an understanding of education as the social process in which we nurture and develop capacities for practice. […] That may be done in a way that re-generates privilege and poverty; it may be done in a way that increases privilege and poverty; but it may be done in a way that trends towards equality. (p. 16)

Bringing this vision of equality to fruition requires a fundamental re-imagining of the value and purpose of education. This dissertation endeavours to uncover such revolutionary potential in FLOs.

CONCLUSION

The contest over the purpose of education is far from conceded. The accounts brought together in this research illuminate FLOs' capacity to re-insert the question of values into education—to put into practice a commitment to equity beyond the rhetorical. Insofar as they are ideologically constituted as places of critical democratic engagement—i.e., of education which engenders personal empowerment and social transformation guided by the principles of equity, social justice and inclusion (Armstrong & McMahon, 2002, in McMahon & Portelli, 2004, p. 72)—FLOs comprise important sites for the study of resistance. This dissertation seeks to unpack the extent to which that undertaking is an inherently political one.

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1 Four years later, these estimates now likely understate the scope of this rapidly expanding sector.

2 See also Angus, M. (2003). School choice policies and their impact on public education in Australia. In D. Plank & G. Sykes (Eds.). Choosing choice: School choice in international perspective. New York: Teachers College.

3 See Savage (2011) for an empirical example of a Victorian government school that aggressively 'negotiates' the exit of under-performing students.

4 The CoAG Compact with Youth (2009), for example, required Youth Connections provide 'at-risk' young people with "access to education or training through an alternative learning facility" (DEEWR, 2010, p. 12. In te Riele, K. (2014). Putting the jigsaw together: Flexible learning programs in Australia. Final report. Melbourne: The Victoria Institute for Education, Diversity and Lifelong Learning).

5 See, for example, Henry et al. (2012). Australia in the Asian Century. White Paper.

6 Research has demonstrated that teacher effects tend to be inconsistent (i.e., confounded by the socio-demographic makeup of classrooms) (T. J. Kane & Staiger, 2008) and unstable over time (i.e., previously observed teacher effects tend to diminish over subsequent intervals (Koedel & Betts, 2007) (both in Vickers, 2015).

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2. PERFORMATIVITY AND PROFESSIONAL SUBJECTIVITY IN FLEXIBLE LEARNING OPTIONS

INTRODUCTION

FLOs are expressly organised in response to the educational disenfranchisement of disadvantaged young people. The root and mechanisms of this disenfranchisement are taken up at length in Chapter 1 and do not require substantial reiteration here. Suffice it to say that

> the political constitution and the principal economic and social arrangements […] of society favor certain starting places over others. These are especially deep inequalities. Not only are they pervasive, but they affect men's [sic] initial chances in life; yet they cannot possibly be justified by an appeal to the notions of merit or desert. (Rawls, 1971, p. 7)

While Rawls's theory of social justice provides a uniquely systematic treatment of social institutions in the perpetuation of disadvantage, similar conclusions have long been endorsed across the critical theory corpus. Schooling, in particular, has been consistently reiterated as fundamental to the reproduction of disparate power relations, but also as a vital site for the realisation of just social ends (see, for example, Biesta, 2010b). Many FLOs have strongly embraced this (re)conceptualisation of the underlying purpose of education.

In many cases, the foundational ethos and organising principles of FLOs comprise explicit rebuttals of a perceived exclusionary socioeconomic and political status quo. For example, *Youth+*, a leading national provider of flexible education services under the banner of Edmund Rice Education Australia, cites Br. Phillip Pinto in its foundation document,

> I see no value in a centre of learning, which churns out numberless school leavers each year and is passively part of a society torn apart by divisions of race and partisan politics… Our schools exist to challenge popular beliefs and dominant cultural values, to ask the difficult question, to look at life from the standpoint of the minority, the victim, the outcast, and the stranger. (Youth Plus Institute, n.d., p. 1)

This counter-hegemonic sentiment is clearly reflected throughout the research literature on flexible learning pedagogy and praxis. Critical descriptions of FLOs' core aims necessarily underscore the institutional nature of educational disenfranchisement and its socio-political—rather than individual—character. In a recent special issue of *Critical Studies in Education*, Pennacchia et al. (2016) elaborate upon issues of social justice as they pertain to

the provision of alternative education for marginalised young people. Motivating their investigation are the potential lessons for 'regular' schools in the quest for "a more socially just education system" (p. 1). Contributors interrogate, among other issues, the foregrounding of 'injustice and symbolic violence' in the education of Indigenous young people in Australia (Skattebol & Hayes, 2016); young black males' use of social capital in the overcoming of structural disadvantage in the UK (Wright et al., 2016); the normative juxtaposition of 'mainstream' and alternative schooling by young people in 'behaviour' schools in New South Wales, Australia (Graham et al., 2016), and prevailing gender and class norms impinging upon the socioeconomic re-inclusion of marginalised young mothers in the UK (Vincent, 2016).

In the same volume, M. Mills et al. (2016) consider the ways in which FLOs take up Fraser's (1997, 2009) conceptualisation of social justice, i.e.,

> issues of distribution, or the economic injustices faced by the young people attending the schools; issues of recognition, that is, the cultural injustices faced by these young people; and issues of representation, with regard to the political injustices experienced by young people. (p. 100)

M. Mills et al. (2016) find Fraser's theorisation incomplete with regard to schooling's 'affective sphere' as a site of social practice (Lynch, 2012) and its role in a 'meaningful' education that enables the interruption of social, economic and political disadvantage. The authors point to FLOs' curricula and distinguishing pedagogies of 'care' as "central to the achievement of social justice for the young people attending these sites" (M. Mills et al., 2016, p. 101). While cautioning against the reinforcement of a spurious alternative/mainstream binary, they advocate greater attention to issues of affective and contributive justice in mainstream educational settings.

More recently, MacDonald et al. (2018) describe the 'socially transformative' educational practices at work in Australian FLOs. With attention to the perspectives of participants, the authors explore how FLOs' holistic emphasis on wellbeing allows disenfranchised young people to understand critically the prevailing attitudes and norms at the heart of their exclusion from education. They argue that through such practices, FLOs empower young people "to transform their educational frames of reference to address the social inequality many have experienced in mainstream education environments" (p. 2).

In the Habermasian (1971) sense, FLOs are rhetorically constituted in the service of the 'emancipatory' interest of human beings, in which learning activates "people's capacity to achieve freedom from self-imposed constraints, reified social forces and institutions, and conditions of distorted communication" (Roderick, 1986, p. 56, in Ewert, G. 1991).

Educational re-engagement through FLOs is therefore addressed not only to the disenfranchisement of individuals, but to the prevailing social conditions under which such alienation is systematically sustained and reproduced. The realisation of social justice is thereby characterised as the underlying purpose of an educational process that allows an individual young person to recuperate, acquire the requisite skills for meaningful self-actualisation, question one's extrinsic social positioning (as well as one's own internalisation of such positioning) and begin to challenge the institutions that perpetuate disadvantage.

FLOs' foundational ethos and organising principles may be read as policy texts guiding the delivery of flexible education services to these ends. As observed by Ball et al. (2012), 'policy' should be recognised in this context as a process

> as diversely and repeatedly contested and/or subject to different 'interpretations' as it is enacted (rather than implemented) in original and creative ways within institutions and classrooms […] but in ways that are limited by the possibilities of discourse. (ibid, pp. 2-3)

The particular modes by which these policies are enacted and resisted by practitioners at the classroom-level are of keen interest to FLOs' parent organisations (in whose interest such policies are effectively embodied) and bear important insights concerning the emancipatory potential of education 'at the margins' of society.

This chapter seeks to elucidate counter-hegemonic policy performances among flexible learning practitioners. In light of education's definitive neoliberal turn—in Australia and across the globe—a clearer understanding of the possibilities and limits of these discourses may contribute to a critical appraisal of alternative education's counter-hegemonic political program and the potential of FLOs to enact meaningful social change.

The investigation that follows draws first on Habermas's articulation of education in the service of people's emancipatory interest. This function is predicated upon the capacity to become 'self-determining' (i.e., cognisant of the social order of which one is a part and according to which one's self-concept is constituted) (Benhabib, 1986) and 'self-reflective' (i.e., cognisant of the latent social constraints that delimit the emancipatory potential of education) (Roderick, 1986, both in Ewert, J. 1991, pp. 354-355). A thematic analysis of FLO practitioner discourses is then constructed around Fraser's (1990) response to Habermas's conception of the 'bourgeois public sphere' in which she brings together a revisionist historiography evincing numerous spaces of counter-hegemonic resistance. Of particular interest to Fraser (and to the present analysis) are the arenas of discursive competition formed and sustained by "subordinated social groups […] to formulate

oppositional interpretations of their identities, interests, and needs"—arenas Fraser proposes to call 'subaltern counterpublics' (p. 67).

As public spheres, Fraser's subaltern counterpublics are constituted foremost to (re)enfranchise their members through the consolidation and dissemination of their own discourses. Subaltern counterpublics amplify the voices of the downtrodden and provide the necessary media to access public activity. They illuminate rather than 'bracket' social inequalities, expressly problematising domination through structural violence (in the Foucauldian sense). They position 'interlocutors' not as peers, but as contestants bound in disparate power relations. Subaltern counterpublics both shelter and inculcate their members. They are dynamic forums, characterised by plurality and deliberation, simultaneously reflecting and formulating counter-hegemonic programs of social, political and economic justice.

Moreover, the counterpublic is no mere coincidence of history. According to Fraser, the egalitarianism and multi-culturalism of society depend upon a "plurality of public arenas in which groups with diverse values and rhetorics participate" (p. 69). As such, the formation of subaltern counterpublics may be seen as both an outcome of discursive practices in stratified societies, as well as constitutive of a socially just, democratic society. Notwithstanding some criticism of Fraser's theorisation (see, for example, Warner, 2002), her description of the subaltern counterpublic provides a useful framework through which the socially transformative potential of FLOs may be systematically appraised.[1] To wit, Fraser poses as an empirical question whether members of such publics "share enough in the way of values, expressive norms, and, therefore, protocols of persuasion to lend their talk the quality of deliberations" vis-à-vis a larger, superordinate public with broader, inter-sectoral concerns (p. 69). It is this central question to which the inquiries of this chapter are addressed. That is, to what extent are FLO practitioner discourses framed as distinct and oppositional to that of a purported 'mainstream' hegemony? Conversely, what do these purported counter-discourses share in common with respect to their implicit and explicit framings of the underlying purpose of education?

The remainder of the chapter is outlined as follows. The next section clarifies the methods employed in the collection, preparation and analysis of data. Select protocols of the discourse-historical approach (Reisigl & Wodak, 2016; Wodak, 1990) to discourse analysis are outlined, with special attention to the necessary iterative recursivity between (critical) theory, context and data. Empirical data, drawn from interviews with flexible learning practitioners at two sites, are then presented. This is followed by a synthesis and discussion of findings, and a brief chapter conclusion.

METHODOLOGY

This chapter investigates the discursive processes through which counter-hegemonic educational policy is negotiated, translated, performed and resisted in FLOs. To the extent that it is concerned with "structural relationships of dominance, discrimination, power and control as manifested in language" (Wodak & Meyer, 2016, p. 12), the research stance may be considered critical. Following Fairclough (1992), discourse is conceived here in three dimensions: 'discourse-as-text,' i.e., the linguistic patterns and discursive strategies that reveal relations of power and influence; 'discourse-as-discursive-practice,' i.e., policy performance as both produced by and constitutive of unique institutional contexts; and 'discourse-as-social-practice,' i.e., language in the reproduction and challenging of social hegemony.

Data are derived from two FLOs in the Northern Territory and Victoria. Both of the sites fell under the auspices of larger, religiously affiliated parent organisations. One was part of broader flexible learning service provider network, the other an independent program of a not-for-profit charitable organisation. One of the sites served a majority Indigenous cohort. Both sites offered pathways to an accredited, secondary-level certification (Year 12 completion or equivalent). The data are principally ethnographic, collected through two days of interviews and participant observation at each FLO. Semi-structured interviews were conducted with all practitioners (i.e., educators, classroom assistants, social workers and administrators) present during each site visit. In total, interviews with 23 practitioners were audio recorded and transcribed.

Following a first read to gauge clarity and identify emergent major themes, transcripts were analysed with reference to Reisigl and Wodak's (2016) 'complex research strategy,' combining the 'abductive' relation of interviewee responses to an established theoretical model (i.e., Fraser's (1990) *Contribution to the critique of actually existing democracy*) and an inductive assessment of the strength of this correspondence (p. 32). This analytical approach is supported through a continuous recursive movement between text (interviewee responses), (site-specific) context, and (critical) theory concerning the role of FLOs in Australia's neoliberal educational system.

Transcripts were thematically encoded with correspondence to Fraser's descriptive criteria of subaltern counterpublics using QSR International's NVivo 11 qualitative analysis software. Key thematic nodes included: 'consolidation' (i.e., descriptions of FLOs as spaces of withdrawal, recovery and belonging); 'predication' (i.e., positioning of the FLO vis-à-vis 'mainstream' schools and society more broadly); 'collectivisation' (i.e., discursive formation of a group identity based on a recognition of common disenfranchisement); modes of

'deliberation' concerning the emergent group interest; and 'dissemination' of a political program via exclusive forums and media. These themes are interrogated with particular attention to the topoi with which they are invoked and how their expressions are variously impacted by the unique institutional contexts of each site.

The analysis is primarily concerned with unpacking the discursive strategies employed by practitioners in the articulation of each group's particular identity, purpose and praxis. In this sense, it may be understood as an analysis of the texts' 'microstructure' (Reisigl & Wodak, 2016, p. 45). Particular attention is paid to practitioners' interdiscursive references to 'mainstream' discourses. Whether or not the latter discourses are empirically manifested in identified texts is marginal to the present analysis. Rather, it is the practitioners' characterisations of and responses to purported 'mainstream' discourses that are of principal interest.

FINDINGS

Sturt Pea

Sturt Pea serves a majority Indigenous cohort in a regional urban centre. The site is clearly designed and operated as an Indigenous Australian communal space. Bold-coloured walls—some left half-painted by distracted students—are adorned with portraits of the black heroes of the anti-Apartheid and US civil rights movements. Motivational quotes attributed to Indigenous Australian sporting icons encourage healthy choices, positive relationships and the overcoming of obstacles through hard work. The school's well-worn indoor learning spaces transition seamlessly to a bright central courtyard that serves as the school's cafeteria and central meeting place. Young people trickle in slowly from across the city and its surrounding communities throughout the morning hours. Though many are visibly exhausted from a lack of sleep in tumultuous homes, the frenetic energy of adolescence reverberates throughout the co-educational campus.

Sturt Pea is an accredited secondary-level school, as well as a registered training organisation (RTO) providing technical and vocational certification in a range of fields. Students frequently pursue level 1 and level 2 vocational certifications alongside their other studies, though only a small minority attain a Year 12 completion (or equivalent) before exiting the program. Many of the program's participants had been outside of formal education for extended periods, with low levels of functional literacy and numeracy very common throughout the cohort. A large number have histories of youth justice involvement, including incarceration, as well as frequent exposure to domestic violence and the misuse of

drugs, alcohol and volatile inhalants. Pastoral care plays a central role in sustaining young people's attendance and participation.

Consolidation of group membership as part of Sturt Pea's staff is strongly tied to a recognition of Indigenous identity and race-based socioeconomic exclusion in Australia. An articulated awareness of the social consequences of inter-generational poverty among Aboriginal Australians—and the potential of education to interrupt this cycle—link practitioners in a shared sense of purpose and professional identity.

> He wanted to be like anybody else and own a car and have a house and get married and travel the world. When he started to go to school […] he started to feel like he was not welcome there and that his kind […] which is full blood Aboriginal, for some reason were looked down on at school. What really hit me, he talked about he was getting racism not from non-Aboriginal people, but from Aboriginal people but they were the light skin, he calls them, which is the half-cast people. He said, "When I went to school, they really attacked me and they really bully me and didn't want me there and make me feel very bad." So, he dropped out of school. […] When [student] first came to this program, he blossomed. He just took everything that we gave him and he kept on asking, thirsty for knowledge, thirsty to learn. […] We basically took that young fellow as a little brother. He came a long way and he's got a dream now, he knows what he wants to be and he's working on that now at school. (Wade)

The cultural character of the school and its unambiguous regard for local Indigenous young people was of clear significance to Aboriginal staff members.

> I feel like this is where I'm meant to be. I've been in different positions, in different jobs where the money has been really good and all that kind of stuff and you're living comfortably but then not really enjoying the work and not getting that job satisfaction […] And then it sort of happened that this come across, this job came up. It worked well. It fitted with the way I thought about the world and [city] and the community here. Yeah just going to be a perfect fit for me. (Rohan)

In some cases, practitioners' sense of professional identity was linked to a perceived capacity to operationalise the foundational ethos and principles of Sturt Pea's parent organisation:

> I didn't get the job as the head of campus of this school because I'm an expert in [Indigenous] Australian people. I got this job in this school because I've worked in the organisation for a long time and the people who run the organisation have faith in me that I will set it up as a [parent organisation] school. I think that's why I got asked. I'm not sure. (Troy)

Others, like Owen, seemed to subvert the centrality of the parent organisation's programmatic structure—especially insofar as it smelled of 'mainstream'—drawing upon their personal interpretations of a broader political ideal to validate their staff membership.

I'm only new, so I don't really want to talk myself out of a job […]. Like, I know for a fact that [administrator] […] made sure that the previous music worker was really focused on getting students through the cert' and he mentioned […] that's an important part of the job. I would love to have a conversation on that level and to go […], 'If there's no strings attached in terms of my position and the school's position in terms of just engaging through the creative arts or music, why do we have to attach training to it? Why couldn't we just have it as a really open, engaging space where we do all the things that you would do in a certificate training thing, but you're not judging it from a certificate perspective—we're not basing it around the model of, now you've got a bit of paper, now you've got another bit of paper.' What is the meaningfulness of that? (Owen)

Practitioners emphasised the personal rapport and democratic principles of participation shared between staff and students as defining aspects of their work. In some instances, this professional identity was emphasised as unique and contrasted with 'traditional' understandings of teaching.

You still see bits where people go into 'teacher' mode. It's probably not even fair on teachers. That still happens. That's always going to happen because that's what gets imparted on us as we grow up—that you're the adult and you know everything. Well, we're trying to say, 'Well, no. We've all got something to bring to this common ground.' (Troy)

The view of teaching in the FLO as professionally distinct from that of mainstream schools was recurrent and frequently explicit.

By the time you get to middle school—sort of Year 7 and above—a lot of teachers, and probably in some ways you don't blame them, but you go, "Okay, I'm a science teacher. I'm teaching science. I'm here, so I want young people to come into my classroom, take a seat, listen to what we're teaching and that would be it. I'm teaching my subject, I'm in high school now." So, there was a lot of that if the young person wasn't in the class, well, there wasn't too much of a worry for them […] and then there's the pressures of curriculum, where as a teacher in a middle school, you've got to teach this, this and this—in this order—and you have young people with attendance bouncing in and out. (Wesley)

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Wesley emphasised the structural nature of these patterns of practice and seemed keen to avoid normative judgements of the local high school. His perspectivisation (e.g., "my classroom," "we're teaching") alluded to his own recent tenure in a 'mainstream' school. The phenomenon of educational disengagement among Aboriginal youths was contextualised against chronic socioeconomic deprivation in the local community that rendered 'mainstream' educational settings a non-starter for a large number of young people.

> The school was really good. They had a school-wide positive behaviour model and approach and they still do a really good job. But for some reason there's just a core group who, for whatever reason, weren't attending and when they did attend, just didn't last very long. (Wesley)

Others contrasted the FLO's processes of collectivisation (i.e., deliberation on the group's collective interest) with a (negative) characterisation of 'mainstream' educational practice. Tori, an Aboriginal staff member, anchored this difference in the FLO's ability to remain responsive and engaging, unencumbered by the bureaucratic risk-aversion characteristic of 'mainstream' schools.

> Yeah, we did that [organisational] analysis last night […] and I put on that the challenge of becoming too 'school-like.' So where is our balance of being a flexi and also being a school—which we are of course—but not turning into what [the young people] left for whatever reason? Yeah, I think that's probably in my mind a really big challenge. […] I think someone else brought up last night the notion of red tape—and as the red tape grows for staff, it starts to look more and more like a traditional school space. […] The more red tape—the more of that we get—the less experience we're going to provide because we'll be like, 'I'm not going to take them out because someone might sue me if something happens.' (Tori)

In general, all of the practitioners interviewed at Sturt Pea framed the disengagement of Aboriginal young people primarily as a symptom—rather than the cause—of a perceived societal crisis.

> In my opinion, the number one thing that has caused the most problem and grief […] is alcohol. Without a doubt, alcohol […] has invaded the community, the health. […] It comes in and it just wipes out. […] And then you've got family violence […] It's like no one's caring for the young kid because all this other stuff is going on […]. So, then you've got these kids who have got so much trauma so as a result in terms of their brainstem and what's happening and their function ability—and we're trying to teach them literacy? (Shirley)

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Indeed, Sturt Pea's entire pedagogical approach was strongly informed by best practices in the recognition of and response to trauma. The FLO thereby served as a haven for young people facing pervasive insecurity in their home environments, including mental, emotional and physical violence. For many young people, Sturt Pea was a place to have a much-needed meal, to rest without disruption (often during class) and, above all, to be safe. Clearly articulated as a space of withdrawal, participants were provided the distance and perspective needed to regroup, recover and begin a process of personal and collective realisation.

Sturt Pea was founded as part of a network of FLOs under the auspices of a national parent organisation. This entailed a detailed plan for program development well-tested throughout the country, legal and administrative expertise, a deep pool of professional staff from which to draw leadership and key staff, and financial resources to bridge between the FLO's immediate start-up needs and subsequent public funds for ongoing operations. And while Sturt Pea's pedagogy was closely aligned with its parent organisation's foundational ethos and operational principles, its site-specific translation of that political program was not predetermined.

> So, trying to mould that together and all head in the one direction was really challenging because you had that group of people who were like, "Well, this is how we've always done it and don't think just because you've come here…" you know. So, I had to spend a long time just sitting […] and observing and watching what's going on. What was really clear was that most people wanted some clear direction […]. So that was challenging because the new people were like, "Well this is what it says on the website. This is what it says on the brochure. This is how we should be operating." Then there was another group of people who'd been here for a while who had some really good practice, but often had to do things just to get through the day […]. Trying to line that up together was pretty challenging. (Troy)

Troy identified a gap between the FLO's stated ethos and principles—inherited from its parent organisation—and the particular modes by which these policy texts were to be embodied on site. Moreover, he made clear that Sturt Pea's program was to be the product of formal deliberation among staff on the ground. An effective alignment of policy and performance required assessment of the FLO's extant organisational culture, the expectations imposed by new staff members, the emergent needs of the young people, and the implementation of novel formal structures—all carried out under considerable time pressure.

> The 20 questions—it was quite labour intensive, but the information was invaluable.
> And it pointed out: this class, we've got all these people who are saying they're using

marijuana; in this class, we've got all these people who say they're not getting X amount of sleep. And so, it helped from that point of view. It just fell off our radar because we didn't keep drilling down deep enough […]. We could have spent three or four weeks understanding it, unpacking it, working out how we're delivering it, deliver it, review it. […] But we certainly need more data on those soft outcomes. And one of the things that's part of our strat-plan is to have a social and emotional wellbeing program. Because, at the moment, pastoral care is very much, 'Oh, let's come and have something to eat. Let's sit down and let's spend time together,' which is really important, but if there was a common thread of something that we're all trying to do in that time, it would be much more powerful. (Troy)

The enactment of Sturt Pea's political program faced obstacles—originating both within and beyond the walls of the FLO. Anne describes the challenges of bringing up young people to "live in two worlds"—a recurrent theme of providing the fundamental means to "walk and talk" in a world that reflexively resists their Aboriginality.

I think because a lot of our young kids are culturally bound […], when young fellas have gone for business and they've come back, and how the teacher might still treat them. And it's just being able to have a balance of respect for our young fellas. And the teachers will call them 'boys' and they're like, "We've just finished [initiation]!" […] To be able to have our young people to live in the two worlds, to have a balance in their life. We've all had to grow up. In whatever company I'm in—if I'm with my family and English might be second or third [language], I will just change my whole way of thinking or my whole way of how I might speak. Or if you're sitting down with government people, then you'll change the way that you think. And I think just for our young people, we've given them that opportunity to be able to walk and talk in the world. A lot of our kids have grown up with culture—they know it inside out, back to front. But also, how do you work with them to be able to not feel shame when they go into the shops where you have to talk with them or anything like that? (Anne)

Anne's deictics—"*We've* all had to grow up"—communicate a recognition in the experiences of 'our' young people a path along which all Aboriginal people tread. The young people's agency to interface with white Australians without shame and on their own terms reflects and bolsters her own agency—and that of the broader Indigenous community—to do the same.

The disenfranchisement of the Aboriginal community vis-à-vis 'white Australia' has compelled members of this public to self-organise in pursuit of their own solutions and

recovery. Indigenous practitioners at Sturt Pea use flexible learning pedagogy as a vehicle for this agenda—one of the few available to them.

> Yeah, I don't pull any punches. It's just the honest truth, but in a respectful way, that I know how. Then I tell you, from then on, that's how we got our literacy up and running. […] We talked about, "What are some of the issues that happen in our own town?" "Well, what about my nana? She's on a basic card." "My nana can't even pay her bills." Or, "The government's done this." And then, "I see the police harassing our people." It was the best way of helping them to identify things that were good in this town and things that were bad. (Anne)

Sturt Pea's political program is fundamentally about equity of access—to employment, civic participation and society. It is about overturning the social conditioning that serves to subordinate Indigenous Australians. It is about the provision of skills to allow Aboriginal young people to overcome inter-generational dependence and destitution. Foremost, it is about empowering young people to exist in 'two worlds' on their own terms.

> Young Indigenous people are being asked to walk in two worlds by their older generation—their parents and their grandparents. […] I was with an elder and some young people […] and he just went to town on all the young people, and kind of used me as a sort of an example of 'white fella world,' you know—technology and stuff. Basically, he just said to his grandkids, "You've got to learn, you've got to keep your own traditional and cultural things and you've got to learn English and you've got to learn how white fella world works, and walk both of those paths. And these are like 14, 15-year-old young men. And I think that's massive, you know, I think that's a really massive thing.

> Like the whole premise of [parent organisation] is, 'Education is going to set you free.' I'm paraphrasing. But education how and education of what? Education in itself doesn't set you free, if the content is making you someone else that you don't want to be. (Owen)

Blue Gum

Blue Gum is situated on the periphery of a major capital city in a low socioeconomic-status suburb with high unemployment and scant economic prospects. The FLO is an accredited provider of a state-sanctioned applied learning certificate, which was developed as an alternative Year-12 equivalent pathway for young people unlikely to pursue tertiary-level

education. Program participants remain enrolled as students in their respective schools, but attend Blue Gum (nominally) full-time.

The activities of the FLO's parent organisation span the gamut of social interventions in the fight against poverty in Australia—Blue Gum is but one of these myriad initiatives. At the time of the research, this organisation had undertaken to register the FLO as an independent school, a move highly controversial among staff members. The investigation presented here thus stumbled upon a moment of profound uncertainty and intra-organisational intrigue. At the heart of the decision to pursue registration—despite strong opposition at all levels of the parent organisation—was a predicament over a persistent shortage of financial resources.

> When the Gonski review was done it was calculated that government funding means about [$]14,000 per kid to schools, and that's in a one-resource school that has a well-advanced pathway support. We get the students that the mainstream schools can't cope with […]. And yet we get about $6,000 […] in the student resource package. So not only are we trying to assist kids who are family support worries, but with most of the money, we're trying to support the kids who have particular needs—anxiety, housing needs, depression, drug and alcohol problems, juvenile problems. […] And as I said, that's not much to teach a kid who is not experiencing any difficulties—try and teach a kid who is experiencing real hardship. These are the kids that schools are throwing their hands in the air and said, 'We can't deal with this.' (Angus)

Hence the impetus for registration of the FLO as an independent school. Yet this course of action was clearly no panacea—neither in financial nor political terms.

> Just go back to that point of the unintended consequences of not-for-profits—we're walking a tightrope. Because we know that flexibility is critically important and we have to advocate for flexibility, but we have to be careful not to also […] facilitate fragmentation of the system […].

> Well it may be […] that if the state provides any money at all […], it's certainly implied that the sector will grow and take kids off their hands. It may be wrong to consider assistance to charter schools[2] unless you really want to go down that road, where the state provides funding for charter schools but [then] retreats and allows those who are entitled to an essential service to not receive that service from the state if they receive it at all. There's lots of shrinking of the state, especially now with the private schools. […] So, I'm ambivalent. We want to advocate for flexible learning programs—really high-quality ones. I don't particularly want to advocate for learning programs that are

[run] in corrugated shelters with no time [by] under skilled workers dealing with 20 angry kids with no money, with no wellbeing support—I don't want to advocate for that. I want to advocate for programs that have put a lot of thought into […] developing pedagogy for these kids, access to high quality wellbeing support and that give a kid a kind of a handout until […] further training. So yes, flexibility—but with conditions. (Angus)

Angus recognised a clear need for responsive pedagogies that work for young people with the highest needs. Yet he also saw in the registration of non-governmental schools a danger of allowing the abrogation of states' responsibilities with regard to young people's right to education. He was thus torn between the immediate need for flexible learning alternatives and a broader political vision of a public sector that fulfils its obligations to those living on the margins of society.

In the head offices of Blue Gum's parent organisation, Shannon had been tasked with heading the formal process of registering the FLO as an independent school—an assignment for which she had no direct training or experience. She was wholly less circumspect than Angus regarding her misgivings about the strategy.

Like I said, a large proportion of the organisation does not think it should be the role of community organisations to deliver education to our kids. It's the responsibility of the state government; it's the responsibility of the federal government. We don't have an obligation to do this, and if we change our mind in five years, 10 years, whatever, we can just change our mind. We don't have to continue providing this education to young people. If we're picking up all the slack for the state and federal government because they're not doing this, well, […] what happens to those kids?

It creates a vacuum where the state has basically abdicated responsibility over the duration for the service.

And if community organisations have developed this [alternative] for working with this group of kids, the government is less inclined to really focus on developing that skill-set and building capacity of schools to do this—to work with these kids in a better way—because it's being outsourced. There's no ongoing obligation for us to do that, so this has been like a major political rift internally. (Shannon)

According to Shannon, the final decision to register Blue Gum as an independent school was pushed through by the sheer force of will of a minority of the association's board of directors. Thus, from the outset, consolidation of Blue Gum's new structure, staff membership and model of practice were being driven by disinclined managers at its parent organisation who

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lacked relevant expertise and clear direction. Moreover, Shannon lamented, the official narrative—contrived retrospectively to adhere to the school registration strategy—was predicated on Blue Gum's ability to inform a model of best practices in mainstream educational settings—a role she insists the program was ill prepared to fulfil.

Once you're a school, and this shit that's going on down there keeps going on, it just leaves us open to much more risk, more scrutiny.

Q: Like what? What do you mean?

Some massive blowouts onsite between the students and teachers or students and others—because it's a collocated site—[…] punch-ons between the kids and things like that, where the cops are coming—disgruntled, mental parents coming on site—and everyone being in lockdown and things like that. […] We're meant to be doing this best practice model where, 'Look how well we work with these kids,' and you've got people watching that and observing that. We can't keep going how we've been going and then say, 'Look how great we do this.' No. It's a shit-show every day. (Shannon)

As for the staff at Blue Gum, years of financial uncertainty, persistent job insecurity, and near daily bedlam on site had left many feeling isolated, unsure about their future with the organisation and generally distrustful of both their parent organisation and the 'mainstream' feeder schools for whom they ostensibly served as a triage unit and dumping ground. In a group interview with the site's teaching staff and program coordinator, student recruitment processes were characterised as deliberately opaque on the part of the FLO's 'mainstream' counterparts.

Sophia: Even sharing that information, they don't let us know. So there have been kids that have been tested through the school system and they've got results to say that this young person has got this, this and this and they don't share that information with us—

Veronica: Because they don't want us to say no.

Sophia: They just want that kid out the door.

Q: You think?

Carissa: Yeah.

Sophia: Yeah, seriously.

Veronica: Absolutely.

Carissa: We had one boy last year that was full of so many problems. We may have said this wasn't the right setting for him had we known the booklet of information that we didn't get until he'd been here for six months and massive amounts of assessments. We probably wouldn't have had the resources to deal with—

Veronica: We didn't have the resources to deal with—

Sophia: No, we didn't.

Veronica: Basically, the schools go, 'Say the least amount, hope that they don't discover, we'll keep this stuff to ourselves.'

The explosive assertion—that the schools from which Blue Gum's participants are drawn routinely withhold information on young people viewed as problematic—was met with unanimous agreement around the table. 'Mainstream' schools, they insisted, obfuscate known details about young people in order to prevent Blue Gum from conducting an informed assessment of its own capacity to provide for students with particular needs. The practitioners' rhetorical 'othering' painted an 'us-versus-them' dichotomy in which staff members believed they were being set up for failure. This dichotomy was strongly apparent with respect to the site's relative lack of basic resources.

So [mainstream school] had fully employed people that did that sort of assessment with kids […] to work out their learning capabilities […]. I just see there's schools like that who are resourced with that information because it's identified that schools need that. But we also need to know this information. So, we're pretty much flying blind. And sometimes we do work it out eventually, but it's taken us 12 months to work out what they could've worked out in a month. So, it's making our job harder. (Carissa)

Sophia lambasted the proposition—apparently put forward by Blue Gum's parent organisation—that the site's resource shortfalls could be met through volunteer contributions.

It's not efficient. The other thing […] that I think really needs to be noted here is lack of resources cannot be propped up by volunteers. […]. [Parent organisation's] fundamental ideology for this year is, 'Okay, you've got no wellbeing support, but you can use volunteers for that.' Well that has been an absolute disaster this year […]. You can't rely on unpaid workers and hope that they're going to find it in the goodness of their heart to commit to a level that we require in order to function properly, it's just not realistic. (Sophia)

Sophia positioned administrators in Blue Gum's parent organisation as naïve and even antagonistic with respect to the site's complicated daily praxis. The site's only trained social worker (and clear operational lynchpin), she was unabashed regarding the personal toll exacted by the demands of her work. Moreover, the status quo had left her feeling professionally inadequate, in that she was unable to sufficiently meet the level of need among the young people in her care.

Q: You know this better than anyone—that funding picture doesn't have a happy ending.

Sophia: No.

Q: Maybe there's a rich person who's waiting to hear about you, but generally these types of problems get worse before they get better. How does that affect you as a professional? You've very clearly identified—

Sophia: You're doing a half-assed job. You're not working to the level of your professionalism because you can't. You cannot look after 34 kids and all of their wellbeing needs by yourself, you can't.

Q: How does it affect your motivations to—

Sophia: My motivation at the moment is the worst it's been since I've been here, and Veronica knows this. I went away for four weeks and I came back and I just thought this is just the same shit, different shovel. I'm over it—no, seriously […].

The practitioners continuously re-centred the conversation around the young people, who shared the burden of Blue Gum's insufficient organisational capacities. Despite the challenges and frustrations, the young people were repeatedly cited as staff members' primary source of personal and professional validation.

I haven't lost my passion for working with these kids which is why I'm still here, but you do reach a point where your passion starts to wane when you think, 'I can't do this on my own—is it time for me to look and do something else?' And I have seriously been considering that. Even though I have loved working with these kids, there's only so much I can give. (Sophia)

Throughout the interview, Blue Gum's organisational deficiencies emerged as a type of meta-narrative through which the practitioners' responses were channelled. Even praise for the positive aspects of their work was generally qualified through the lens of the FLO's

structural shortcomings. Interestingly, these qualifications seemed discursively mediated between more and less outwardly frustrated staff members.

Carissa: The reason I have stayed here, and I feel that we're very under-resourced too—it's really horrible to say this—but I feel like this program has more resources than what I had previously in that I actually have [teaching assistants] in my classroom. I have some wellbeing support, I have some pathway support, I have a manager who cares about how I feel—I have those things. It's still got a long way to go, but […] there's programs that are operating on even less out there.

Sophia: But it's not good enough.

Carissa: No, it's not good enough.

Sophia: When it starts to burn out your staff, it's not good enough.

Carissa was cautious in her assessment, attenuating her suggestion that things could be worse as "really horrible to say." She identified positive aspects of her working environment that lent her a sense of professional validation, such as being cared about by her supervisor. Yet she was swiftly interrupted by an exasperated Sophia, who effectively steered the conversation back to the inadequacies of the site.

Furthermore, the practitioners seemed in agreement that their professional validation was for the most part derived through a personal sense of purpose, undergirded by a feeling of solidarity among staff members. This was contrasted with 'mainstream' perceptions of their work as educators.

Q: Do you think mainstream schools or the Department of Education […], do they take [the applied learning certificate] seriously; do they take what you do seriously?

Carissa: No.

Sophia: No.

Veronica: Yeah, they do. I think they take [it] seriously, but […] it doesn't count in the same way. It's the 'poor cousin.' You can write on a notice board out the front, 'We got 90 percent of our kids into the University of Melbourne.' You can't do that with [the applied learning certificate]—that's what counts.

The practitioners described the applied learning certificate as subordinate to the state's tertiary-oriented school completion certificate. By extension, practitioners in the former stream believed they were viewed by their professional counterparts as less motivated and less capable.

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Veronica: So that's how it works—[…] the people who you do not want to be teaching in your school because they are completely over it, they are totally disinterested—they're the ones you send to [the applied learning certificate].

Jeremy: Scandalous.

Veronica: It is a bloody scandal.

Stacey: It's like a punishment.

Carissa: It's not valued in school. [Being assigned to teach the applied learning certificate] is sort of like the message, 'I think that we don't really want you anymore.' It's an unspoken rule at a school that if you've been sent to [the applied learning certificate], no one really wants you here.

Veronica: That's called, 'We're just letting you know that you're hanging by a thread.'

Janet: Are you generalising there?

Jeremy: General trend—

Veronica: I would say 80 per cent of the teachers would take that approach. There are some teachers who go, "[the applied learning certificate] is fantastic, that's my line."

Carissa: That's me, yeah.

Stacey: The dregs.

The staff jabbed playfully at each other, speciously undermining each other's professional confidence in mutual recognition of the challenges of teaching in such a complex space. They convey their disparagement in ironic tones, attesting to a belief that only the most qualified and dedicated professional could achieve educational success amid such profound need. By claiming agency over their decision to teach the applied learning certificate, they flip the 'mainstream' narrative to their own approbation. This notion of agency is extended to the young people who choose to attend Blue Gum, drawing practitioners and young people together against the perceived antagonism of the 'mainstream.'

The kids don't conform—they come here and they're happy to not wear uniform. They've been kicked out because they've been smoking at school or they've got piercings and they're not allowed to have them. So, it's not just about [the applied learning certificate], it's about a community […] or an alternative setting where they're not being held and being told, "Well, if you don't do this, you're not good enough to be here," which is what they've been told. (Mandy)

Staff members point to a normative bifurcation of 'mainstream' and flexible learning pathways and, by extension, the disparate social value ascribed to the young people in each stream. What was previously defined as 'deviance' is re-framed at Blue Gum as non-conformity and individual difference—a matter of expressive agency reduced in the 'mainstream' to a negation of young people's self-worth. That the organisations of which they have been a part do not put sufficient resources into the program is cited as evidence that these institutions undervalue their professional contributions and the young people with whom they work.

> You can tell by the resources that they put into the programs. […] At the end of the day, all these resources we're talking about cost money, and so if schools value those things, they would be giving that money to those programs. (Carissa)

Conversely, the practitioners' persistence at Blue Gum evinces both their dedication to young people in dire need and the asserted moral rectitude of this commitment. Accordingly, descriptions of abundant structural challenges, the practitioners at Blue Gum continuously returned to the young people at the heart of the FLO's mission. In describing critical pedagogical responses to the needs of the participants, the staff articulated a clear and uniting agenda of social change.

> With [the ('mainstream') Year 12 completion certificate], when you teach a subject […], you're given your curriculum and that's what you have to teach because you teach to what the state tells you. With [the applied learning certificate], you're given learning outcomes and you can teach whatever you like.

> So, we tend to structure our topics on social and emotional outcomes, and things that we think would be useful to these kids—the lessons that maybe we feel they're not getting from their home life that they might need to become good functioning members of society. One of the feedback I get constantly from young people is, 'This school rocks over any school I've ever been to because I'm actually learning things that I need to know. So, I'm learning about drugs and alcohol. I'm learning about mental health. I'm learning about incarceration.' These are just some of the topics we've done this year, things that actually impact their lives.

> They're homeless and they've got drug problems and they've got mental health issues and they've got all of these issues that we're talking about and they want to learn, they want to have a job and they want to have a future—but they [are trapped in those] cycles. I often hear kids say things like, "I don't want to be like my mum and dad. I want to be the first one that finishes high school in my family." (Carissa)

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The practitioners' dedication to this core educational value was said to "flow on" to the young people, reinforcing their participation in the process of social change through a bolstered sense of community and belonging. At the same time, several staff members stressed their strained commitment to pursuing that mission as part of Blue Gum. The site's ongoing financial shortfall—and lack of professional validation from the parent organisation this was implied to signal—was seen to have a corrosive effect on staff morale. "I think sometimes," Jeremy said,

> it has a flow-on effect to the teachers within the team and it breaks down because of that. It's a dedication that we all share that keeps us coming back I think as a team.

Notwithstanding the uniting aspects of their shared experience, a pervasive sense of professional disempowerment and increasing isolation were plainly taking a toll.

> If there's something that's burning up inside and you don't have an opportunity to offload that—it just keeps festering. It gets bigger and bigger. And if you feel you're isolated within a team, I think that would be one of the main reasons you don't feel supported and that's what forces you to think, 'I'll go somewhere else.' […] If you're coming to work and you feel like you're disconnected from the rest of the team and no opportunity to unload that and feel lifted up again within that team, I think the only option is to find somewhere else to go. The pay's not enough to support it. (Jeremy)

Hence Jeremy renders plain a "tension, [a] structural and individual schizophrenia, and the potential for inauthenticity and meaninglessness" inherent in his praxis even if motivated by resistance (Ball, 2000, p. 8).

DISCUSSION

This chapter seeks to better understand the formation of practitioners' professional subjectivities within FLOs. Each within their particular contexts, flexible learning practitioners engage in processes of 'making sense of,' contesting and otherwise 'enacting' educational policy (Ball et al., 2012). Like their counterparts in 'mainstream' schools, they are subject to technologies of surveillance and selection, informed by particular philosophical standpoints and principles of action. To elucidate these subjectivities, the research interrogates practitioners' enactment of educational policy texts that originate within FLOs' parent organisations. As Ball et al. (2012) asserts, such texts

> are typically written in relation to the best of all possible schools, schools that only exist in the fevered imaginations of politicians, civil servants and advisers and in relation to fantastical contexts. These texts cannot simply be implemented! They have to be

translated from text to action—put 'into' practice in relation to history and context, with the resources available. (p. 3)

In FLOs, idealised visions of social change must be translated, embodied and enacted (through pedagogy and otherwise) by practitioners on the ground. This chapter explores the ways in which practitioners at two FLOs interpret, enact, resist and extend the educational policy of their parent organisations. In particular, it is concerned with the practitioners' discursive framing of flexible learning pedagogy and praxis in opposition to the 'mainstream' status quo. Guiding this investigation is Fraser's (1990) conceptualisation of 'subaltern counter-publics,' constituencies drawn together and defined by their marginalisation and political resistance. By unpacking practitioners' discursive mediation of policy within FLOs, the analysis illuminates how these enactments serve to "frame, constrain and enable the possibilities of teaching and learning, of order and organisation, of social relations and the management of problems and crises" in Australia's flexible learning space (Ball et al., 2012, p. 7).

At Sturt Pea, staff enact a vision of social transformation through a pedagogy of critical democratic engagement (McMahon & Portelli, 2004)—a "problem-posing education, as a humanist and liberating praxis, [that] posits as fundamental that […] people subjected to domination must fight for their emancipation" (Freire, 1970, p. 86). Practitioners, like Tori, speak in stark terms about the need to engender in Aboriginal young people a basic vision of human agency. This agency is closely linked to the development of their 'basic' reading, writing and numeracy skills. The novelty of Aboriginal youth encountering mainstream society on familiar, civic terms is socio-politically transformative, and it is distinct from the valuation of literacy and numeracy in 'mainstream' educational contexts not characterised by extreme socioeconomic disadvantage. At Sturt Pea, the education of Aboriginal young people is about actualising a civic subjectivity otherwise out of reach. To be successful requires flexible learning practitioners "to explore that space between risk and experience," a practiced capacity that distinguishes the FLO from 'mainstream' schools.

Both Indigenous and non-Indigenous staff members articulate a notion of Aboriginal young people having walking in two worlds. As observed by Nakata (2007),

[Indigenous Australians] exist, live and are positioned in a particular relation to other knowledge, interests and people as we pursue the dual goals of equality with other Australians while maintaining and preserving cultural distinctiveness. (p. 198)

Navigating these relations in 'mainstream' educational settings has demanded of Aboriginal young people an internalisation of prevailing societal norms, negotiation of traditional

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identity and, all too often, negation of self. In response, pedagogy is framed at Sturt Pea in terms of access, but also survival—a political program to challenge the catastrophic disenfranchisement of Indigenous Australians.

In many ways, strong organisational support facilitates an alignment of educational praxis at Sturt Pea with the political program of its parent organisation. Yet practitioners' policy enactments evolve discursively through both formal and informal processes of collectivisation. Some practitioners, like Troy, validate their sense of belonging through a perceived capacity to faithfully enact the political program of Sturt Pea's parent organisation. Others, like Owen, emphasise a proclivity to push the boundaries of permissible activism—to test the parent organisation's willingness to take risks in the service of social transformation.

At Blue Gum, one encounters a lively, if dark, sense of humour born of the site's ongoing financial woes. Facing a monumental task with minimal resources, staff convey a pervasive and enduring sense of professional uncertainty. They express feeling under-valued by and isolated from administrators in the FLO's parent organisation. Their blunt assessments are distinct from the principled—even evangelist—narratives commonly encountered at Sturt Pea. It is an interesting divergence that places the institutional backing of the church front and centre in the ongoing debate about the state, schooling, and sustainability.

Practitioners at Blue Gum continuously reiterate a lack of institutional support to do the job that 'they should be doing,' stranding the group in a kind of holding pattern. Among others, Carissa communicates a lack of time and resources (let alone training) to properly support her colleagues. Staff members' shared sense of professional stagnation binds them in solidarity, but also alienates. Were their efforts properly valued, they reason, Blue Gum would have the resources it needs. Ultimately, they feel they must face their challenges as individuals, each armed only with her own merit, obliged by an undergirding devotion to the cause. The resulting 'chaos' of their daily praxis stymies the FLO's potential as a space of withdrawal and regroupment for young people. Such 'chaos,' which is seen to distract from the broader agenda of social change at the centre of their efforts—poverty eradication, redistributive justice, community development—emerges as a source of intra-organisational tension between practitioners at the FLO and administrators at Blue Gum's parent organisation.

Against this backdrop, practitioners emphasise their commitment to the young people at the heart of the FLO's mission. As at Sturt Pea, practitioners convey their aims as part of a program to improve young people's economic and civic access. They draw parallels between the educational disenfranchisement of these young people and their own dealings with

'mainstream' schools. Keen to offload problematic students to Blue Gum, schools are alleged to withhold information needed to inform the work and strategic planning of the FLO. This purported obfuscation compounds the uncertainty and instability of the practitioners' day-to-day work. Despite—or perhaps in response to—the structural barriers faced by practitioners at Blue Gum vis-à-vis 'mainstream' schools and their own parent organisation, practitioners convey an urgent need to consolidate the demonstrable gains (e.g., course progression) made by the young people at the FLO.

Moreover, through the development of tailored, responsive pedagogy, the practitioners are able to reclaim a sense of professional agency. At Blue Gum, curriculum development is a political act, an assertion of power and agency denied practitioners in 'mainstream' educational settings. Contrasted with the prescriptive pedagogy of 'mainstream' schools, an education of value is appraised by practitioners at Blue Gum through a lens of student interest and practical utility. Informed by participants' experience of need, practitioners teach what works and what is useful for marginalised young people. 'Usefulness' is aligned with 'meaningfulness'—by providing participants a useful education, practitioners at Blue Gum help young people find "meaning in their lives."

Finally, notwithstanding the usefulness of Fraser's theorisation, missing here is a straightforward accounting of the membership of the purported counterpublics under investigation. FLOs are constituted as sites of resistance to the disenfranchisement of young people—not their staff members. Unlike Fraser's exemplary feminists of the 1970s, who self-organised to counter their own socio-political subordination, FLOs are not spontaneously generated spaces of critical discourse and political (re)action. Their foundation has (thus far) involved the participation of practitioners (and their enabling institutions) in positions of relatively strong social, political and economic agency. The formation of the FLO as a subaltern counterpublic, then, has necessarily included the involvement of 'allies' alongside the young people to whom the FLO's mission is directly addressed. To what extent, then, do these 'allies' share in the disadvantage experienced by their youth counterparts? This configuration is immediately apparent at Sturt Pea, where the disenfranchisement of Indigenous Australians is front-and-centre in the FLO's articulated political program. Prominent among Sturt Pea's practitioners are Aboriginal Australians for whom marginalisation is part and parcel of their community's socio-political reality. At Blue Gum, practitioners describe distinct forms of disenfranchisement vis-à-vis 'mainstream' schools (e.g., with regard to information sharing), as well as their own parent organisation (e.g., with regard to inadequate resourcing). Yet these forms of disempowerment are clearly framed in light of the direct consequences they bear for young people. Their perspectivisation serves to

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reinforce a shared concept of 'we,' according to which practitioners seem to derive a significant component of their professional self-concept. This (subaltern) self-concept is reinforced through the practitioners' alignment with young people against ostensibly external institutional agents—in particular, the 'mainstream' schools with which staff at Blue Gum interact.

More pertinent than an imposed stratification of 'ideal' membership, however, is the extent to which FLOs comprise sites for the practice of alternative, 'actually existing' political democracy. It was this aspect that spurred Fraser's interest in the notion of the subaltern counterpublic and with which the present research is most concerned. Nonetheless, any consideration of the FLO as a subaltern counterpublic—absent the voices of the young people themselves—is clearly incomplete. The present research, then, merely represents a starting point for a more comprehensive and inclusive theorisation of the critical democratic potential of FLOs.

CONCLUSION

The semiotic and material impact of flexible learning pedagogy vis-a-vis the broader hegemonic discourses of state and market are mediated by—and mutually constitutive of— the 'meso-level' discourses of FLOs' parent institutions. Thus, the particular institutional arrangements within which FLOs are couched play an important role in understanding the potential of FLOs as agents of social change. As equity within Australia's hybrid educational system continues to narrow, these issues are likely to grow in significance. Insofar as FLOs counter the educational disenfranchisement of disadvantaged young people, their mission is critical and expressly counter-hegemonic. Yet flexible learning practitioners are cognisant that their programs may afford the state outlets to abdicate provision of social support in schools. Their ability to navigate this ostensible contradiction bears important questions for the future of this sector, and for understanding what is 'public' about government-funded education in Australia (see Gerrard et al., 2017). Though in some ways constituting publics in their own right, there remain broader 'external' publics to which FLOs remain accountable (Fraser, 1990, p. 76).

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1 Warner's (2002) criticism suggests in Fraser's theorisation a latent positivism. 'Publics' proliferate so profusely throughout society, he asserts, and may be constituted so sparsely and in such fleeting instantiations (e.g., readers of an article, commuters filing past a soap-box evangelist in the underground), that efforts to differentiate them as 'publics' are essentially meaningless.
2 'Charter schools,' as they are commonly known in the US, are publically funded schools operated as private corporations. These schools are typically exempt from within-district enrolment mandates and participatory public oversight (Zyngier, 2015).

3. DISTANCE TRAVELLED

Outcomes and Evidence in Flexible Learning Options[†]

INTRODUCTION

As discussed in Chapter 1, Australian state and federal governments have responded to the persistent phenomenon of early school leaving through expanded support for FLOs. With renewed attention among Australia's governing echelons to the equity-informed recommendations of the Review of Funding for Schooling by the (former) Department of Education, Employment and Workplace Relations (see Gonski et al., 2011) and in the light of demands for a stronger evidence base for education policy (Productivity Commission, 2016), advocates of needs-based educational funding are seeking to substantiate the long-term impacts of FLOs (Fox & O'Connell, 2016). Yet the appraisal of schooling effectiveness in FLOs is scarcely straightforward, where various combinations of interrupted schooling and economic, social and emotional barriers to positive academic engagement are the norm. Standardised measures for the assessment of student achievement, matriculation and smooth transition to further education, training or employment are thus inadequate in the flexible learning context. To wit, a growing body of scholarship has aimed to elucidate a broad range of personal, social and economic benefits of 'alternative' education for disengaged youth (Evans et al., 2009; Gutherson et al., 2011; M. Mills & McGregor, 2014; P. Thomson, 2014).

Flexible learning practitioners define participant achievement in holistic terms, recognising that a young person's future pathways are a function of much more than test scores and high school completion. An examination of 'grey literature' (i.e., practice-based and evaluation reports, often of a single program) by te Riele et al. (2017) provides a detailed overview of what counts and is valued by participants and practitioners in the flexible learning space. That paper reviewed a range of FLOs' articulated objectives, as well as the evidence types utilised to indicate success in nominated areas. Targeted domains and associated indicators included academic performance (e.g., literacy, numeracy), educational engagement (e.g., attendance, affection with learning), personal and social wellbeing (e.g.,

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† Part of the original work contained within this chapter has been published as: Thomas, J., McGinty, S., te Riele, K. & Wilson, K. (2017). Distance travelled: outcomes and evidence in flexible learning options. The Australian Educational Researcher, 44(4), 443-460.

mental and emotional health, relationships), post-program destinations (e.g., transition to further education, training, employment), and community engagement and wellbeing (e.g., social inclusion, participation, youth justice involvement).

With respect to 'engagement,' this concept may be broadly understood as a "'meta' construct" linking various experiential and environmental aspects of schooling (Fredricks et al., 2004, p. 60) comprising behavioural, cognitive and affective subtypes (Christenson et al., 2012a, pp. 816-817). While engagement is a reflection of a young person's valuing of and participation in learning, it is also a product of structural influences that serve to facilitate or encumber educational access. The re-engagement of disadvantaged young people through FLOs is predicated upon recognition of their marginalisation from mainstream schooling and an explicit institutional commitment to their social and economic re-inclusion. This framing of re-engagement connects well with McMahon and Portelli's (2004) conceptualisation of 'critical democratic' engagement, i.e., as "realized in the processes and relationships within which learning for democratic reconstruction transpires" (p. 70).

The importance of alternative education's so-called 'soft' (i.e., psycho-social) outcomes is frequently cited in the literature (Brooking et al., 2008; Davies et al., 2011; O'Donovan et al., 2015; te Riele et al., 2017). Although an increasing number of tools have been made available to educators to facilitate assessment of subjective wellbeing and other 'soft' indicators (e.g., attachment, self-concept, emotional and behavioural regulation, empowerment and inter-personal communication) (Wilson-Ahlstrom et al., 2014; Zepke & Leach, 2010), quantitative techniques for meaningful personal and inter-personal comparison remain a matter of theoretical debate (Kristoffersen, 2010). While researchers have observed a gradual incorporation of rubrics for the assessment of psychosocial indicators (Evans et al., 2009), their utilization in FLOs and 'mainstream' schools more generally is both limited and contested. Furthermore, the complex circumstances faced by exiting participants tend to render post-program evaluation of outcomes partial or impossible. However, wellbeing assessment at intake is common, with data used in the development of individualised learning plans (ILPs) and provision of support services. In many circumstances, enrolment data and preliminary testing provide baselines against which progress may be assessed at subsequent intervals.

Myconos (2014) and te Riele et al. (2017), among others, underscore the difficulties FLO practitioners face in the measurement and communication of complex qualitative outcomes, especially given the substantial human and financial resources required to do so. P. Thomson (2014) suggests that in alternative educational contexts, educators may assess achievement as the extent to which a young person undergoes personal growth through participation in a program. For young people considered 'academically at-risk,' Martin (2013) proposes

'personal best' approaches. In FLOs, success is often framed as 'distance travelled' (Dewson et al., 2000; Evans et al., 2009; te Riele et al., 2017) (i.e., the progress a young person makes relative to her own starting point) and is necessarily cognizant of the significant barriers to self-actualisation faced by disadvantaged young people (Davies et al., 2011).

The present chapter aims to unpack flexible learning practitioners' (implicit and explicit) use of 'distance travelled' as a metaphor to convey the educational outcomes of re-engaged young people in FLOs. In particular, it queries the extent to which practitioners' use of this metaphor challenges the enumerative logics of student assessment foregrounded in Australia's mainstream educational discourses.

METHODOLOGY

This chapter stems from research conducted at eight FLO sites representing a cross-section of mature (i.e., operating for more than three years) governmental and non-governmental programs in four Australian states/territories. Sites were either registered schools or independently governed programs (i.e., not annexed to mainstream schools). Three of the sites served majority Indigenous cohorts. All of the selected sites offered non-compulsory, credentialed, secondary-level education to previously disengaged young people.

In-depth interviews were recorded with 92 practitioners (i.e., teachers, youth/social workers, support staff and program administrators) across the eight sites. The analytical framework comprises a 'hybrid' thematic analysis, involving a balance of inductive and deductive coding approaches (Fereday & Muir-Cochrane, 2006). A preliminary inductive analysis of interviews and field observations was first undertaken to identify major themes and outline protocols for the systematic coding of data. QSR International's NVivo 11 qualitative analysis software was then used to code all interview transcripts in accordance with these protocols. Crosschecks of coded transcripts were undertaken to verify consistency and accuracy of the coding. Transcript excerpts coded with the major theme 'outcomes' were then collated for in-depth analysis of practitioners' views concerning the educational outcomes they value and to elucidate the various evidence forms cited by practitioners to substantiate these outcomes. As respondents' discussion of outcomes frequently overlapped with matters pertaining to student assessment, selection of data was extended to include transcript excerpts coded with the major theme 'measurement.' A third-stage, deductive analysis was then performed, overlaying the superordinate theme (Lewthwaite et al., 2017; Morrissette, 1999) 'distance travelled' across the data in order to elucidate various nuanced manifestations of this metaphor in practitioners' responses.

The categories of outcomes discussed in the following section correspond closely with findings from other studies of similar programs (Evans et al., 2009; M. Mills & McGregor,

2014; te Riele, 2014). The investigation is rooted at the programmatic level (i.e., inquiry centres on the educational outcomes of young people to which the various evidence forms cited by practitioners may be directly linked). This delimitation of *outcomes* is usefully distinguished from the ostensible long-term and macro-level *impacts* of education. Grounding analysis at the level of program participants serves to highlight the educational outcomes most valued by practitioners, as well as the practical means by which these outcomes may be empirically substantiated.

FINDINGS

Although the focus of this paper is on educational outcomes and the evidence forms used to substantiate them in FLOs, a brief elaboration of the means by which practitioners gather and frame such evidence is relevant. Interviewees indicated broad integration of standardised testing and diagnostic tools, professional judgement, task and course completion, and other forms of achievement benchmarking. The use of formalised wellbeing rubrics was also common to several sites, yet in most cases, data from these tools was principally used to tailor learning and support strategies for individual young people, rather than as evidence of outcomes or to inform whole-of-school improvement processes. Several respondents acknowledged a gap between indications of success commonly cited by practitioners and externally validated evidence forms:

> Was seeing a kid that comes in here who's negative, really unhappy—to all of a sudden see a brief smile. To me, that's the start. But that's something that's very hard to measure on a piece of paper. You can't write down, "Oh, so-and-so smiled today." (Charles, Desert Rose)

Even where supposedly objective benchmarks (e.g., credentials, transition to employment) were held up to indicate achievement, attainments were typically contextualised against the individual and social obstacles faced by disengaged young people. Practitioners overwhelmingly framed notions of 'success' as individual progress, rather than through inter-personal comparison:

> You meet them on the first day that they're here. You get painted a picture of them through an assessment and then you see how far they travel within, you know, 10, 20, 30, 40 weeks and then, you know, revisiting their learning plan or their pathways plan […] you'll be able to see the distance travelled. (Tyler, Desert Rose)

Below, findings to the research questions posed (i.e., the outcomes valued by FLO practitioners and the methods by which achievement of these outcomes is assessed) are discussed in relation to five core themes that emerged from the analysis: engagement,

wellbeing, literacy and numeracy, certifications and credentials, and post-program transitional pathways. Discussion of these findings and concluding comments form the final parts of the chapter.

Engagement

Practitioners across all eight sites consistently voiced engagement as an intrinsic and fundamental outcome. Frequent references to attendance indicated a key quantitative metric of participation, as well as a qualitative indication of young people's commitment to the process of change amidst the ongoing circumstances of their disenfranchisement:

Again, first of all if they're coming. Right, that's the first marker. (Brad, Bottle Brush)

We've got a little mantra here that the first thing you should do is you should get them to school. Then you engage them. And then you teach them. (Melissa, Grevillea)

If you've got a kid who hasn't been in school and you get them to being here for 60% of the time, it's bloody heroic, especially given what else is going on in their lives. It's not as though this is about just getting up and going to school. (Veronica, Blue Gum)

Practitioners tended to endow individual evidence forms with multiple meanings, drawing on a particular form to substantiate a range of outcomes pertaining to engagement. Carissa (Blue Gum), for example, cited attendance and participation in curricular activities as evidence of (behavioural) engagement. Yet she draws on these same indicators to substantiate ameliorated social anxiety (i.e., affective engagement):

Well one girl […] was too scared to come into class. […] I've had to work really hard with her to come up with strategies, like how about you sit near the door so if you get scared, you can leave, and things like that […]. Now the last two and a half weeks, she's just been coming into class, sitting in the classroom, doing her work. Today when we were having our two-hour discussion, she was actually giggling and putting her bit in. I mean this is a different kid than I saw on the first day […]. (Carissa, Blue Gum)

Pointing to the trauma experienced by a young woman, Carissa emphasised her re-engagement as a pathway to personal transformation. Practitioners also uncovered evidence forms highly particular to their cohorts. Veronica (Blue Gum), for example, cited Children's Court decisions as externally validated evidence of engagement (with the ancillary benefit of better legal outcomes):

I know that sounds ridiculous, but […] what we find is that the kids have got better outcomes from court because they can demonstrate that they are in a program that is

productive for them and that they are attending. […] So I think the magistrates feel like they don't have to apply other sanctions because there's something that actually is happening that is constructive for the young person. (Veronica, Blue Gum)

This reference to legal proceedings served to situate the role of the FLO within the broader context of socioeconomic disadvantage. Yet by qualifying improved court outcomes as sounding "ridiculous," Veronica tacitly acknowledged her limited agency as a grassroots-level practitioner to declare and validate such broadly conceived impacts of education.

Wellbeing

In the flexible learning context, wellbeing is a broad and holistic notion encompassing physical, mental and emotional health, and includes aspects of personal and collective empowerment deriving from young people's self-regard, satisfaction, resilience, regulation, locus of control, sense of belonging, relationships, and access to resources and opportunity.

It's really evident that people's ability to form attachments, form meaningful supportive relationships is really compromised. So having a place where they feel safe, where they can form those attachments and then if there's any scope for some sort of visioning or skill development […]. But underneath, first and foremost, is that place of safety and that capacity to be able to form an attachment. I think that then enables all of the other possibilities that happen after that. (Molly, Desert Rose)

Although Molly was clear that she wanted young people to exit the FLO with educational credentials, this desire was qualified with reference to engagement that engenders a positive sense of belonging and enables young people to value themselves. Her characterisation suggested that this cohort of young people face pervasive insecurity, which compromises positive engagement in various life domains. Molly thereby depicted wellbeing (i.e., affective engagement) both as a requisite and catalyst of meaningful engagement with learning, as well as a valuable outcome in its own right. Similarly, Brad (Bottle Brush) drew on a young person's improved self-regulation and inter-personal communication as evidence of empowerment. He explained that the young person "comes from a history of severe trauma" and initially displayed "extreme disruption." Over time, Brad recalls, "there's been improvement out of this world in terms of his behaviour and just his level of respect." Such improvements do not simply reflect social niceties; they comprise evidence of affective and behavioural engagement.

While the value of independence and positive self-concept was embedded across all sites, explicit reference to positive communal identity was reiterated in particular at sites with significant Indigenous cohorts:

So going from more basic strength to a little bit more and stretching out their confidence, but also making them feel that their identity and their culture is of value—it doesn't need to be measured against something to be considered good or bad. (Ryan, Desert Rose)

I've talked to a few people that've come from Sydney and Melbourne and […] they've got this very bad image and negative thing about Aboriginal people—that they're useless and they're very not really bright and they can't read and write and they can't really achieve anything in life. A lot of young people believe that's the way they are, which is really sad. One of my goals here is to change that. (Wade, Sturt Pea)

Shirley (Sturt Pea) tied an Indigenous young person's wellbeing directly to his social integration. His distance travelled, evidenced by improved personal agency, self-regulation and employability, signalled a novel leadership capacity and the potential to enhance the wellbeing of others in his community:

[The young person] was in some sort of traumatic space […] people thought he was dumb. […] He had about a year and a half with one really good teacher at primary school that he talks about, then he didn't go to school […]. Then he came to us. We tackled all sorts of stuff [like], 'How do we have a shower?' Get all the stuff, like, 'This is a toothbrush, this is toothpaste' […], do excursions to get haircuts […]. And then slowly—over like two, three years—he was transformed. […] He started getting physically active; he's lost lots of weight. Look at his dress now […]. Without a doubt […], if this wasn't here, [he] would be unemployable—in a space where he probably wouldn't even leave the house. Now he is going to make a difference in his world and the world around him. He's like a leader in his community… Amazing. (Shirley, Sturt Pea)

Shirley appeared to reference employability not as an end unto itself, but as a marker of the young person's acquired agency to affect his own social integration. Lucy (Blue Gum) reiterated that integration is also about structural access (in this case, to information and services). Improved wellbeing was thus evidenced by the provision of information to support present and future mental health outcomes:

From a mental health support side of things, I think a lot of them have struggled […] with different aspects of their life. I think that they come out with very good support networks for their mental health. Not only through here but they know how to access the stuff outside. We've done a lot of information sessions for the young people this year too, you know, around that 'life' stuff. (Lucy, Blue Gum)

Practitioners frequently 'layered' evidence forms in order to substantiate outcomes in light of a young person's distance travelled, and to triangulate the role of the wellbeing support offered by the FLO in this transformative process. As evidence of personal empowerment, Wendy (Blue Gum) cited a young woman's program participation, self-regulation and substance misuse rehabilitation:

> One girl in particular has had really a hard time. Really, really hard. There was domestic violence and there was mental health issues and things like that within her family. […] When I met her in this program, she was very, very angry—very angry. Most of the time she would storm out of class. She had a lot of anxiety and she had a lot of low self-esteem again and just not able to cope. No coping mechanisms. Through just little bit by little bit by little bit, I've seen her change and grow. […] I think it's through the support in this program. She's got a supportive teacher. She's got a supportive [youth] worker like person in the classroom. If she's struggling, there's someone there to go, "Can you help me with this?" She's got the support team within the wellbeing office. They've linked her into several different things. She's actually just recently gone through a detox program and come out the other side quite successfully. (Wendy, Blue Gum)

Considered individually, each of these evidence forms (participation, self-regulation and rehabilitation) comprises a worthwhile psychosocial outcome. Presented together, however, Wendy has woven a more holistic narrative in which the FLO played a central role in a young person's recovery and re-engagement.

These findings highlight that wellbeing was related to both affective engagement (e.g., self-regard) and behavioural engagement (e.g., personal hygiene). Furthermore, these forms of engagement were conceived as valuable in their own right, as well as enabling of other outcomes, including more 'traditional' notions of academic success such as literacy and numeracy, certifications and credentials, and the development of post-program transitional pathways.

Literacy and numeracy

With reference to 'traditional' academic outcomes and other indications of cognitive engagement, practitioners frequently reiterated the importance of 'functional' literacy and numeracy—i.e., the level required for the daily tasks of living as adults in a complex, modern society. Far from simplistic notions of remedial instruction, respondents tied acquisition of basic literacy and numeracy skills directly to improved independence and opportunities:

I would hope that young people who come to Bottle Brush and engage with us leave with higher levels of literacy than they came with, and that when they do make the choice to leave, it's because they're ready to move on to something else and that they can function in the community. So they can read and they can make sure that they're not being ripped off, and they can check that their Centrelink payments are right—as an absolute minimum, that they're functional. (Alexis, Bottle Brush)

Notwithstanding the perceived need for external validation of these outcomes (e.g., through certification), literacy and numeracy were never severed from their psychosocial corollaries. Basic academic competencies were seen as tightly intertwined with the self-realisation, wellbeing and social integration of young people. Brooke (Waratah) linked literacy to individual and community empowerment, enabled by the interruption of intergenerational educational disadvantage:

Especially in the [suburb] area where most of our students are coming from—it's low socioeconomic and has a history of drugs and alcohol. We want to change that image. We've had a lot of good feedback from the parents, parents who came to us and say, "Thank you." Parents who couldn't read and write and now their kids can read and write. So that's something in terms of changing or breaking the cycle of illiteracy. (Brooke, Waratah)

Throughout the interviews, the value of schooling was explicitly situated in light of community disadvantage. Practitioners framed literacy and numeracy not only as means of self-realisation, but also as requisites of social equity. This characterisation was repeatedly extended to the value of certifications and credentials.

Certifications and credentials

Practitioners stressed that the majority of FLO participants were keen to complete school, if initially unsure about their future plans. Discussion of certifications provided several illustrative examples of how practitioners ascribed multiple meanings to the outcomes and evidence forms used to substantiate impact. Caroline (Waratah) pointed to a young woman's Year 12 certification and work experience to emphasise her improved physical health, behavioural and cognitive engagement and inter-personal development:

She was 14 years old. […] She had a mum who was I think in prison, a little brother who was going into prison […]. This young woman was a heroin user, but she was trying to get into a local high school. They wouldn't accept her because she was a disengaged student and she wasn't attending enough. She came to us and she started

attending regularly. […] She was very bright and she started engaging well in the schoolwork with her teacher and over time […] was able to get on top of her drug use through referral to services that we provided her with […]. But we also provided her with on-site […] counselling regularly and assisted her with managing difficult relationships with her boyfriend at the time, with her mum in jail with her little brother who she was worried about […]. We got her into like a TAFE course where she continued on with Year 12 with us. But she was out in the community doing like […] some sort of health certificate. So she completed that whilst with us and then she got some work experience at a local hospital. By the time she finished with us, she had her Year 12. (Caroline, Waratah)

Although practitioners frequently referenced certification and graduation as signals of inter-personal growth and resilience, they also readily identified the basic economic functionalism of certifications. Carissa cited course completion as a requisite of employment, but also underscored the role of employment in breaking the "cycle of poverty," a social construct:

I want these kids to get an education first and foremost. I want them to be able to pass a Year 10 and a Year 11 and Year 12 because, unfortunately, our society operates in a way that you need that certificate to get certain jobs. […] When you ring employers, you know, they don't care; they just want to take the kids that got the Year 12 pass. […] If we're going to break that cycle of poverty and help these kids to get jobs, they need to have that piece of paper. (Carissa, Blue Gum)

Carissa thereby positioned course completion, even through its symbolic attributes (e.g., signalling effects), as a means to enact social inclusion. Like literacy and numeracy, practitioners consistently embedded the individual value of certification and credentials within broader notions of social transformation:

To actually break that cycle you need to get a good education, because the reality is that you need money to survive and to do things. And so I guess here they have […] the opportunity to work on the issues that have probably run through their family for generations—whether it's abuse or poverty, we're here to help them work through finding a good job, or even a job, that just helps them get by. If there's been trauma, help them and work on that […] and then I guess we all pray that when they have a family they don't go on to repeat what their parents have done. (Brad, Bottle Brush)

Post-program transitional pathways

Finally, practitioners were also deeply committed to building positive, post-program transitional pathways for young people. Successful pathways were indicated by certification, employability, and transition into further education, training and employment, but were necessarily attended by enhanced wellbeing, visioning and novel hope for the future:

> I think sometimes [young people] come in and they figure, "You know, I'll go and get a job one day and I'll make enough money to live," but they don't really envision this happy, content future where they're comfortable or anything like that. […] Sometimes they walk away afterwards sort of thinking, you know, maybe the future that they've envisioned down the pathway has changed a little bit, maybe it's a bit brighter. There's more possibility. (Trina, Acacia)

By framing young people's intention to succeed as acquired agency over transitional outcomes, Trina leveraged evidence of affective engagement (i.e., dispositional optimism) as an indication of durable program impact. Jacob (Wattle) draws on a young person's attendance and successful transition, characterised as a personal journey of recovery, to validate the FLO's prioritisation of young people's sense of belonging and connection:

> Imagine the worst things that could happen to young people; they all happened to him within those two years and he didn't want to be at school. […] But through the connection pastorally with staff, he pulled himself back into the school, re-engaged with his learning. […] We've got staff whose job it is to drive to his house and check on him and to talk to his family. Those things, I think, keep him connected and we got him back in. Now he's going to be a teacher. We're very proud. I think of the future that he can have and who he is now. (Jacob, Wattle)

Thus pastoral care was seen as essential to root young people within a community of learning, enabling novel possibilities for the future. Jacob and other practitioners consistently emphasised the facilitating role of the FLO in this process.

DISCUSSION

Practitioners interviewed for this study rarely assessed educational outcomes with reference to normed standards or cohort-derived benchmarks. That is, recognition of young people's accomplishments was not reduced to 'objective' indicators (e.g., reading scores or certification levels) and was never based on inter-personal comparison or competition with peers (see also Waters, 2016). Young people were not ranked by practitioners. On the

contrary, outcomes were in nearly all cases appraised as 'distance travelled,' i.e., the personal progress made relative to each young person's unique starting point.

Importantly, practitioners distinguish their understanding of 'distance travelled' against the linear, benchmarked course progressions of 'mainstream' educational assessment. Their use of this metaphor is more than a remediation of the starting line against which individual progress may be measured in standardised terms. Rather, practitioners reference young people's 'distance travelled' in order to foreground the multi-dimensionality of their personal and social realisation in FLOs. In other words, 'distance travelled' refers not to the academic progress a young person makes as a student, but to how far she has come as a person. Practitioners evince this realisation on a number of levels.

Practitioners interviewed for this study consistently extolled the value of 'traditional' academic outcomes, including functional literacy and numeracy, formal certifications and credentials, and pathways for transition into further education, training and employment. Yet they were keen that assessment of their professional outcomes not be constrained to these readily quantified criteria. In their view, educational success is also predicated on ensuring the critical engagement and enhanced wellbeing of young people. Practitioners repeatedly underscored the importance of education as a means to strengthen participants' sense of personal agency and enact social transformation.

To substantiate such outcomes, practitioners drew on a range of evidence forms that extended well beyond standardised testing and course completion. Although they reported use of quantitative assessment methods, practitioners also related a strong reliance on their professional judgement and relationships of care to assess outcomes in qualitative terms. Alongside a number of externally validated indicators, outcomes were evidenced through improved attendance, participation, self-regulation, independence, health, security, self-concept, attachment, belonging, inter-personal communication, critical thinking and access to information and resources.

These individual evidence forms were often ascribed multiple meanings to substantiate various manifestations of educational re-engagement. For example, in the context of newly re-engaged young people long absent from formal schooling, attendance simultaneously signified behavioural engagement and enhanced personal agency. For a young woman with severe social anxiety, class participation demonstrated both burgeoning cognitive engagement and enhanced inter-personal communication. A young man's graduation certificate was used to indicate successful course completion, but also his transformed sense of personal security and social belonging.

Even standardised assessment and credentialing were generally framed through the lens of 'distance travelled' and in light of the experiences and circumstances that led to the young

person's initial disengagement. Nor were accomplishments organised hierarchically by relative magnitude or perceived importance. A Year 12 completion was not framed as inherently more valuable than a vocational certificate in hospitality. High reading scores on a standardised test were not seen as fundamentally more important than the choice to attend the FLO on any particular morning. Personal accomplishments were recognised in whatever form they appeared and celebrated as significant irrespective of the attainments of others.

Assessment of outcomes in the flexible learning arena is often characterised by a lack of "clear and convincing evidence" (te Riele et al., 2017, p. 10). Such perceptions may be exacerbated by an apparent conflation of 'outcomes' and 'evidence of outcomes' in flexible learning research. While a reflection of the amorphous nature of valued outcomes, the multiple meanings ascribed to evidence forms, and reference to some outcomes to evince others, this rhetorical inconsistency may constrain validation of holistic assessment practices in the educational research and policymaking domains. In turn, FLO practitioners may feel pressured to containerise their assessment practices within established categories.

It is not surprising, then, that the multiple meanings and cross-applications of evidence forms seen here do not feature prominently in the organisational reports and external professional assessments of many FLOs. In isolation, these accounts exude an apparent lack of consistency at odds with the standardised assessment regimes privileged in the Australian (and international) educational policy sphere. Yet taken together, the myriad evidence forms compiled in the present study comprise a rich and substantive basis for the appraisal of outcomes. The gathering of such evidence requires significant time and professional resources and was, in all cases, grounded upon practitioners' deep understanding of the young people with whom they work.

While acknowledging the professional, financial, temporal and methodological barriers to formal, systematic evaluation in the flexible learning context (P. Thomson, 2014), it is important to note that the practitioners interviewed for this study were not only interested in evaluation, they were perpetually engaged in it. Flexible learning practice and pedagogy, particularly with regard to ILPs, are fundamentally informed by the individual needs of participants. ILPs are continually reassessed and adjusted to reflect each learner's progress, interests, motivations and capabilities. As these are in constant fluctuation, the evaluation process must be undertaken in perpetuity. In staff meetings, professional development sessions, 'morning circles' and nearly every interaction with young people in classrooms and out in the community, practitioners interrogate the efficacy of their own methods. Often with little formal documentation to show for it (let alone sufficient organisational capacities to collate and present such documentation) (Myconos, 2011), practitioners make evidence-informed adjustments to pedagogy and practice with the concerted input of educators, school

administrators, youth and social workers, support staff, vocational training providers, family members, community stakeholders, and representatives of public service sectors, including youth justice and welfare support.

For all the emphasis on "evidence-based policy and professional practice," in a public sphere ever more obsessed with measurement and cross-validation (Rizvi & Lingard, 2009, p. 49), the evidence provided by flexible learning practitioners is too often and too easily dismissed as 'anecdotal.' The present analysis offers an alternative perspective. Although collection of data was rarely standardised, practitioners readily acknowledged the impetus for the validation of their outcomes. They drew on the vernacular of educational policy discourse to communicate empirical progress toward declared ends. Such assessment processes can hardly be considered ad-hoc; they are cognizant, continuous and critical.

CONCLUSION

This chapter illuminates flexible learning practitioners' validation of educational outcomes on their own terms. Practitioners were shown to push the boundaries of the prevailing assessment paradigm to assert their own perceptions of the underlying purpose and value of education. By endowing the evidence forms used to substantiate outcomes with multiple meanings, practitioners advocated that engagement and wellbeing are inextricably linked to literacy, matriculation and other 'traditional' academic outcomes. Such linkages are not linear or causal; rather, the outcomes assessed by flexible learning practitioners appear inherently co-dependent and multi-indicative.

Flexible learning practitioners spoke frequently about "breaking the cycle" of educational disadvantage and socioeconomic disenfranchisement. For them, the re-engagement of young people was a practice of social justice, a transformative process whereby individuals and communities may overcome their institutionalised exclusion (see also M. Mills et al., 2014). Supporting FLOs as agents of social transformation requires recognising, validating and strengthening the means by which practitioners assess and communicate the outcomes that enable such change.

Practitioners also recognised the economic functionalism of education. Yet they challenged the means by which this may be actualised given the disenfranchisement of disengaged young people. By re-framing educational outcomes through the lens of individuals' 'distance travelled'—that is, away from year-level benchmarks and inter-personal comparisons—practitioners contextualised the gap between promise and practice, broadening the discussion of educational outcomes to include a critical consideration of socioeconomic exclusion. Young people in FLOs regularly demonstrate the resilience demanded within an increasingly insecure, globalised economy. Yet to produce evidence of

these capacities requires 'real-world' testing—for a young person to be faced with uncertainty, to be made to feel insecure. It is the privilege of the enfranchised that such trials are not defining characteristics of their youth and education. For disenfranchised young people, the demonstration of new abilities to confront and overcome manifest barriers to their social and economic integration comprises (perhaps the most) significant evidence of the impact of FLOs.

PART II

And since no one can compare what happened after that with what might have happened instead, it is impossible to determine how right or wrong the son was in his calculations.

The Narrator
Hitman Anders and the Meaning of it All, Jonas Jonasson (2015)

4. ESTIMATING THE ECONOMIC RETURNS TO ALTERNATIVE EDUCATION IN AUSTRALIA

Econometric challenges and opportunities[†]

INTRODUCTION

In Australia, the social and economic consequences of educational disengagement have been at the forefront of educational policymaking and debate for well over a decade. Chapter 1 explored international trends in this arena, with an eye toward the influence of global neoliberal discourses on the national educational reform agenda. Australia's contemporary educational policy sphere is revisited here, with a focus on recent developments shaping the country's flexible learning sector. In particular, reforms of the late 2000s that facilitated the proliferation and scaling of FLOs have since lapsed, leaving stakeholders across the flexible learning sector seeking renewed commitments of political and financial support for such programs. Key to their success is the articulation of flexible learning's ability to engender increased participation of its target cohort in further education, training and employment. This chapter contextualises this perceived political imperative and suggests a novel approach to the appraisal of FLOs' long-term outcomes. The chapter begins with a brief discussion of the scope and distribution of educational disengagement in Australia. It then traces major policy initiatives of the last decade, including the Rudd Government's 'Education Revolution' (2008)—a proposal to overhaul Australia's education and training sectors; the CoAG agreements and partnerships undertaken to implement the Rudd/Gillard reform agenda; and the subsequent withdrawal of direct federal support for secondary-level educational programs under the Coalition-led governments of Abbot and Turnbull stemming from 2014. The chapter then surveys recent research investigating the economic returns to education in Australia and elsewhere throughout the OECD. The underlying econometric foundations of these studies are unpacked in order to explicate the methodological challenges associated with quantifying returns to education for disadvantaged young people. The use of matching estimators for the estimation of treatment effects is proposed for estimating the

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long-term impacts of flexible learning in Australia. The theoretical framework underlying the use of propensity score matching is outlined, with empirical applications to follow in Chapter 5 and Chapter 6.

Disengagement in Australia

The OECD identifies persistent, high rates of secondary-level educational non-completion among member states as a serious impediment to economic growth, equality of opportunity and social cohesion (OECD, 2016). Overall completion of upper-secondary education fell short of the Council of Australian Governments (CoAG) target of 90% among 20 to 24-year-olds by 2015 (CoAG Reform Council, 2013), though the long-term trend appears on track to achieve this goal by 2020 (Productivity Commission, 2017). Year 12 (or equivalent) attainment has been demonstrably uneven, however, with school completion among males as low as 46% and 55% in the Northern Territory and Tasmania, respectively (ACARA, 2018) (see Figure 1). And despite national improvements in the overall Year 12 completion rate, the Productivity Commission (2016) reports a decline in post-schooling engagement in further education, training and employment.

Figure 4.1. Percent early school leaving (Year 12 non-completion), age 20-24 by region

Below 10%

10% to 19.9%

20% to 29.9%

30% to 39.9%

Above 40%

Insignificant Data
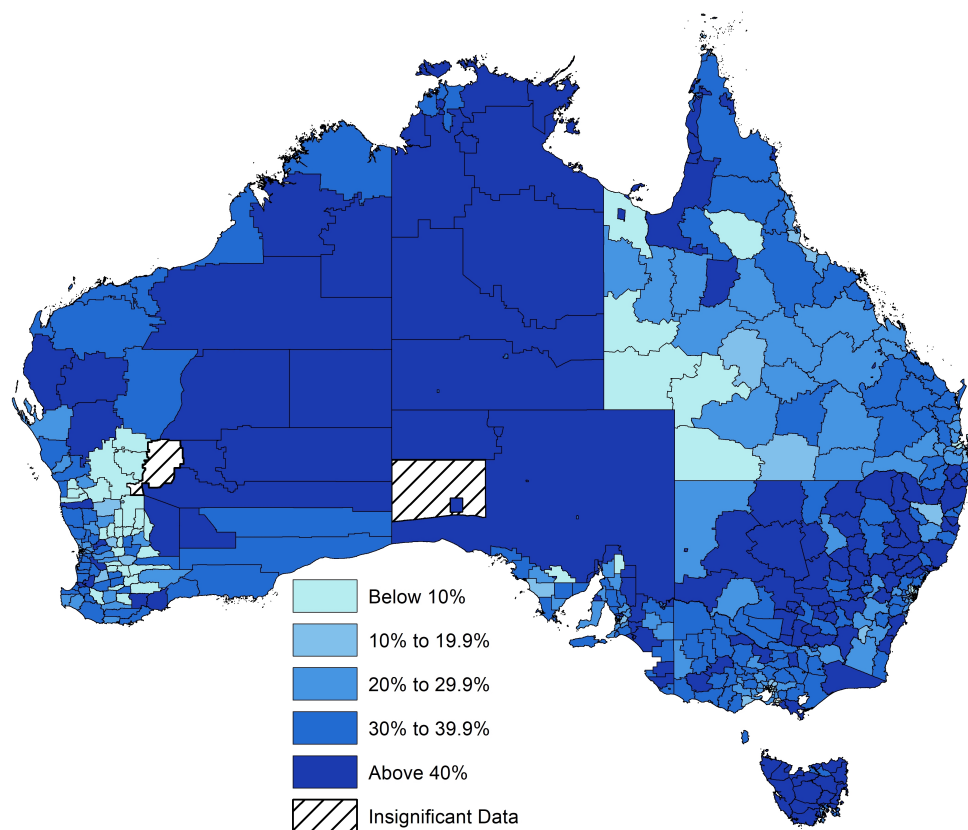
Source: (ABS, 2016)

As in other OECD member nations, educational disengagement in Australia remains disproportionately high among socioeconomically disadvantaged students and at crisis levels among Indigenous young people. Year 12 completion falls to less than a quarter among young people of the lowest socioeconomic means in the Northern Territory and nearly half of Australia's Indigenous youths nationwide do not complete high school (ABS, 2018; ACARA, 2018). Addressing this disparity was a principal component of the CoAG Aboriginal and Torres Strait Islander Education Action Plan, which aimed to halve the early school leaving gap among Indigenous Australians by the end of the current decade (MCEECDYA, 2010).

Constrained by the bounds of permissible neoliberal discourse (see Chapter 1), Australia's evolving educational policy environment has in the previous decade oscillated between the social capitalist emphasis on equity—to be realised through enhanced economic prosperity— and neoliberal predilections for government intervention in the marketplaces of education

and labour on behalf of capital. Key recent policy developments may be usefully mapped to publication of the Rudd government's educational policy program, *Quality Education: The case for an education revolution in our schools* (Australian Government, 2008). *Quality Education* spelled out the government's agenda to sustain higher levels of economic growth through more productive domestic human capital, to redress socioeconomic inequity by raising the workplace skills of the disadvantaged,[1] and to buffer the nation against the impending socioeconomic tumult of sustaining its ageing population's quality of life amidst ever more competition from the developing global south (Australian Government, 2008). Drawing explicit links between higher levels of secondary-level educational attainment and greater economic productivity, Rudd and Gillard's formative treatise laid responsibility for Australia's economic and civic prosperity squarely at the feet of the nation's schools. "Schooling," they assert,

> along with early childhood development, is an important enabler of economic potential, and is central to helping Australian children to reach their individual potential. It is a key element of building a just and participative society. The basic literacy and numeracy skills developed in school provide the necessary foundation for developing higher order skills that contribute to a more productive workforce.
>
> […] It is likely that children who receive a better education are less likely to commit crimes in later life. Low educational attainment is also associated with inter-generational poverty and poor social inclusion. High quality schooling is critical to the life chances of individuals and generates a range of economic, social and inter-generational benefits. (p. 15)

"[…] improving upper secondary education attainment," the authors continue, "was one of the five policy priorities the OECD identified for Australia in its 2008 report, *Going for Growth*. *Quality Education* thus affirms the OECD's technical (if not moral) authority with regard to the country's educational policy trajectory.

Australia's 'education revolution' reflected a long-emerging consensus regarding educational assessment best-practices throughout the OECD, an agenda that continues to enjoy broad bipartisan support in Australian policymaking circles. Indicative measures against which progress toward policy aims were to be assessed included, *inter alia*, the proportion of children enrolled in and attending school; improvements in literacy and numeracy among the nation's children in Year 3, 5, 7 and 9; the proportions of young people at the lowest and highest levels of performance in international assessment regimes such as PISA; the proportions of young people with Year 12 or equivalent credentials; the proportion of young people engaged in post-school education or training; and the proportion of young

people aged 18-24 engaged in (full-time) employment, education or advanced training (p. 13). *Quality Education* also promotes the 'extended schools' model, in which schools are envisioned to "address the range of external factors that impact on students' ability to engage in learning," including issues related to students' health and wellbeing (p. 27). Indicative measures of young people's psychosocial development and wellbeing are not, however, included within the policy's performance assessment framework.

Following publication of *Quality Education,* the *Melbourne Declaration on Educational Goals for Young Australians* articulated Australia's federal, state and territory governments' commitment to enhancing educational outcomes for disadvantaged young people. In contrast to the economic functionalism of *Quality Education*, the *Melbourne Declaration* directly addresses the persistent gap between political rhetoric and reality, acknowledging that "[s]tudents from low socioeconomic backgrounds, those from remote areas, refugees, homeless young people, and students with disabilities often experience educational disadvantage" and that "Australian governments must support all young Australians to achieve not only equality of opportunity but also more equitable outcomes" (MCEETYA, 2008, p. 15). The oft-cited *Melbourne Declaration* has proved seminal to the (re)articulation of the rights-based, public purpose of education in Australia (see, for example, Cranston et al., 2010).

The ideals articulated in the *Melbourne Declaration* were formerly supported by a number of national partnerships between Australia's state, territory and federal governments, initiated through CoAG's National Education Agreement (2009a). CoAG's *National Partnership on Youth Attainment and Transitions* (2009b), in particular, spelled out two key initiatives targeting upper-secondary completion among disadvantaged young people: 'Youth Connections' and 'School-Business-Community Partnership Brokers.' The former dramatically increased federal financial support for new and existing programmes to promote educational engagement among marginalised young people; the latter played an important role in raising community awareness and access to these programs (te Riele, 2014, p. 23). The national educational partnerships, however, were not to last.

Despite widespread approbation of Youth Connections, which was found by the Senate Select Committee on the Impact of the Abbott Government Budget (2015) to have been successful in assisting disadvantaged young Australians overcome barriers to education and labour-force participation, including "mental health problems, caring responsibilities, homelessness, drug and alcohol abuse, and the breakdown of family relationships," the Abbott government allowed Commonwealth appropriations for the National Partnership on Youth Attainment and Transitions to lapse in 2014 (SSC, p. 13).[2] The federal government's pivot away from secondary-level education was met with swift condemnation across the

social services and educational sectors, for whom the future of flexible learning in Australian was left abruptly uncertain. Said Jennifer Kitchin of Youth Connections Anglicare to the Senate Select Committee into the Abbott Government's Budget Cuts (2015),

> There are 30,000 young people across the country who are affected by this closure… [who] are often very disadvantaged young people. Our long-term concerns around this program going is that we are not seeing any reciprocal state initiatives picking up on this group of young people, and the result will be that they will drift into unemployment and their future options will be severely limited. (p. 15)

Shyanne Watson, also of Youth Connections Anglicare, concurred, stating, "We believe, generally, if Youth Connections is not there and another service does not have the capacity to pick those [young people] up, that they will totally disengage" (ibid).

In defence of its decision to discontinue support for the national partnership, the Abbott government touted its Youth Employment Strategy "to improve employment opportunities and outcomes for Australia's young people and make it easier for them to enter the workforce" (Commonweatlh, 2016). The new policy included provisions for two pilot programs within the Department of Education and Training's Industry Skills Fund—Youth Stream: 'Training for Employment Scholarships,' comprising federal subsidies for employers willing to hire eligible young people in temporary 'work experience' arrangements; and 'Youth Employment Pathways,' a funding scheme favouring a case-management approach to promote workplace preparedness among disengaged young people (Australian Government, 2015a; 2015b, respectively). The successors to these pilot programs were subsequently incorporated by the Turnbull government, whose approach to youth engagement remained strongly rooted in skills training, work placement, employer incentives and the discouraging of 'welfare dependency' by conditioning receipt of public income subsidies upon education, training and labour-force participation.

Current government policy explicitly aims to shift previously shared responsibility for the educational engagement of disenfranchised young people from CoAG to the states and territories.[3] Limited federal support for these efforts is principally provided via grants to contracted agencies that provide case management and referrals to employment service providers. As direct fiscal support from the federal government wanes, many FLOs have opted to pursue registration as schools. Given state and territory legislation enacted under a number of the previous CoAG national education partnerships, school registration appears to many a more sustainable organisational model in the long-term. Such legislation allows registered schools serving highly disadvantaged young people to access additional needs-

based funding not subject to the short-termism of project-based funding characteristic of many political and philanthropic funding mechanisms.

The issue of financial sustainability is highly pertinent in the flexible learning space, where staffing cuts and programmatic interruptions due to inconsistent or temporary funding jeopardise outcomes of participants, for whom consistency of the learning environment and continuity of inter-personal relationships with staff and peers are integral components of successful re-engagement. Te Riele (2012) observes that successful programs thus:

> have relatively high levels of staffing with high staff-student ratios. Research provides evidence this contributes to program success partly because it enables positive relationships between staff and students that are seen as essential. Many programs employ a variety of staff, not just teachers but also youth workers and counsellors (p. 4).

The per-student cost associated with the provision of flexible learning therefore tends to be higher than in typical mainstream government schools (J. Thomas & Nicholas, 2018).[4]

In light of these programs' relatively higher costs and the country's ever more austere educational policy environment, FLO service providers acknowledge a political imperative to substantiate the economic benefits of this growing sector. As elaborated in Chapter 1, the discursive framing of public funding for schools has in the preceding decade strongly emphasised the educational sector's perceived economic functionalism. Schools have been tasked with ensuring Australia's future economic health, including the nation's ability to care for an ageing population and its competitiveness in an increasingly skills-based 'global marketplace' (DEEWR, 2011). In the competition for scarce funds, FLOs have begun supplementing their core message of educational equity with new evidence of these programs' social and economic 'return on investment' (see, for example, McGinty, Wilson, et al., 2018; J. Thomas & Nicholas, 2018). Notwithstanding an expanding body of qualitative research suggesting that FLOs improve participants' learning outcomes and wellbeing (for a comprehensive overview of recent research on FLO pedagogy and impact, see McGinty, Wilson, et al., 2018; te Riele, 2014; te Riele et al., 2017; J. Thomas et al., 2017), few studies have systematically investigated the long-term benefits attributable to the educational re-engagement of marginalised young people through this form of alternative education. In particular, little research has undertaken an investigation of flexible learning's impacts in the post-schooling transitional phase (i.e., age 19-26) through a quantitative lens. This section of the dissertation utilises econometric methods to enumerate a number of market and non-market benefits expected to accrue over this time frame to FLO participants.

The remainder of the chapter is outlined as follows. The following section serves as an introduction to the quantitative components of the dissertation and contextualises the study of the economic consequences of youth disengagement in Australia. This is followed by a review of recent studies of the economic returns to education and to school-based re-engagement programs in particular. The chapter then elaborates upon the various methodological challenges of substantiating causal links between educational (re)engagement and subsequent employment outcomes in light of the confounding effects of inter-generational disadvantage experienced by many young Australians. Discussed analytical frameworks include ordinary-least-squares (OLS) regressions based on Mincer's (1974) Human Capital Production function, and instrumental variables (IV). Based on the methodological review, neither OLS nor IV is deemed appropriate for estimating long-term economic returns to FLOs. The author proposes the use of matching estimators for the estimation of treatment effects and discusses the theoretical application of propensity score matching to the FLO case. The final section comprises a concise synopsis of the chapter with concluding remarks, and briefly introduces the empirical applications of Chapter 5 and Chapter 6.

ESTIMATING THE ECONOMIC RETURNS TO SCHOOL-BASED INTERVENTIONS

To inform selection of an appropriate quantitative analytical framework, an exhaustive review with selective citation (Cooper, 1988) was undertaken of studies published between 2002 and 2012 pertaining to the estimation of economic returns to school-based educational interventions in Australia. Studies were thematically organised according to selected costs of educational disengagement, including income effects (i.e., workforce participation, and wage and income tax differentials); unemployment costs (i.e., provision of public benefits, and forgone tax revenues); health effects (i.e., direct public health system costs, and indirect morbidity and mortality costs); criminal offending (i.e., costs of offenses and direct criminal justice system costs); and incidence of state pension. Most studies considered each of these cost-types across a range of distinct temporal segments (i.e., delineated to school, work and retirement-age cohorts). Studies were also differentiated according to their primary indicative metrics (e.g., Year 12 completion; education, employment or training status; or years of schooling). Utilizing these works' own cited references, the initial search was expanded to include thematically representative (Cooper, 1988) peer-reviewed academic articles and policy studies estimating the economic returns to secondary-level educational interventions elsewhere in the OECD. As with the Australian studies, articles were delimited to English-language sources dealing with secondary-level education in particular; both criteria are

consistent with the body of work informing the estimation of economic returns to secondary-level educational interventions in Australia. An additional seven articles were reviewed in this second phase. Thematic sub-classification by included cost effects was expanded to incorporate early motherhood (i.e., income support, direct public health costs, benefits, and tax credits); substance abuse (i.e., treatment costs and premature death); and differential tax on pension. For an annotated summary of works reviewed, please see Table 4.1.

Table 4.1. Studies estimating the economic returns to secondary-level educational interventions by region

Region	Author	Summary
AUS	Applied Economics (2002)	Cost/benefit analysis of providing year 12 education to 50% of the 2003-07 cohort of dropouts; includes costs for a variety of intervention and training programs and allows for existing workforce displacement by new graduates.
	Allen Consulting (2003)	Extends the Applied Economics cost/benefit analysis (2002) by estimating indirect costs and benefits of increasing the proportion of year 12 completion in Australia. Models an ongoing intervention program over time.
	Access Economics (2005)	Economic benefit of increased education and training in Australia; cohort model treats education as an endogenous part of the production function to deal with intergenerational effects. Includes educational intervention costs.
	Access Economics (2008)	Cost/benefit analysis of eliminating the year 12 education gap in Victoria and provision of youth mental health services; includes costs of education and health programs.
	DAE (2012)	Cost/benefit analysis of 'Hands-on Learning,' a small-scale program to prevent disengagement of at-risk secondary students in Australia. Includes costs of educational intervention.
UK	Godfrey et al. (2002)	Cost/benefit analysis compares costs of group of disengaged 16-18-year-olds to a hypothetical counterfactual cohort in the UK; considers intervention costs.
	Coles et al. (2010)	Update to Godfrey et al. (2002). Tabulates costs of youth disengagement in the UK. Case studies elucidate various sub-typologies of disengagement and their associated costs. Cost savings (benefits) of interventions also explored.
US	Levin et al. (2007)	Cost/benefit analysis of five leading educational interventions in the US. Accrued (life-time) benefits of improved Year 12 completion modelled as a function of each intervention program's empirical effectiveness.
	Belfield & Levin (2007)	Accrued (lifetime) fiscal and social costs of high school dropouts in California, net of the additional education costs associated with higher Year 12 completion rates.
	Thomas & Nicholas (2018)	Cost/benefit analysis of flexible learning options (FLOs) to prevent disengagement of at-risk secondary students in Australia. Includes costs of educational intervention.
CAN	Hankivsky (2008)	Accrued (lifetime) economic and social costs of high school disengagement in Canada. Study follows methodologies of Levin et al (2007).
IRL	Smyth & McCoy (2009)	Heterogeneous returns to education in Ireland by socioeconomic status and other background characteristics. Explores accrued (life-time) costs of early school leaving and potential savings through intervention.

| EST | Anspal et al. (2011) | Accrued (lifetime) economic and social costs associated with various levels of educational attainment in Estonia. Includes review of studies into local educational intervention policy. |

Finally, five widely cited reviews of econometric literature pertaining to the links between educational attainment and wages were reviewed (Blundell et al., 2005; Card, 1999; Cunha & Heckman, 2007; Harmon et al., 2000; Rouse, 2005). These reviews, which survey an expansive corpus dating over forty years, informed the selection of ten additional technical reports and peer-reviewed academic articles pertaining to the economic returns to various levels of educational attainment (i.e., differential earned income and social costs by years of schooling and/or receipt of formal credentials) in Australia, the US and Europe. Together, these thematically representative works thoroughly encapsulate the prevailing methodological bases for the statistical estimation of economic returns to secondary-level educational interventions in Australia as described above. For an annotated summary of research included in the latter phase of the review, see Table 4.2.

Table 4.2. Studies estimating the economic returns to educational attainment by region

Region	Author	Summary
AUS	Marks & Fleming (1998)	Labour force participation of early school leavers in Australia. Models wages and school disengagement against socioeconomic, demographic, school and attitudinal factors. Uses Longitudinal Survey of Australian Youth (LSAY).
	Rummery et al. (1999)	Rank-order instrumental variable used to estimate percent wage increase from additional schooling in Australia. Uses data from the 1985 Australian Longitudinal Survey.
	King (1999)	Accrued (lifetime) costs borne by the individual and government from a single-year cohort of early school-leavers; includes a stylized adjustment for 'ability and socioeconomic status premium'
	Ryan (2003)	South Australia's Early Years of Schooling policy (mid-1980s) used as an instrument to estimate causal effect of schooling on labour market outcomes; utilises Australia's LSAY and Youth in Transition (YIT) longitudinal data sets.
	Biddle (2006)	Labour force status and accrued income of Indigenous Australians by education and residence in Community Development Employment Project region. Uses National Aboriginal and Torres Strait Islander Social Survey.
	Leigh (2008)	OLS returns to years of schooling, vocational certifications and tertiary qualifications. Uses 2001-2005 waves of the Household Income and Labour Dynamics in Australia survey; adjusted for ability bias and social returns to education.
	Lamb & Huo (2017)	Accrued (working-life) costs of Year 12 non-completion and long-term disengagement. Income and public expense differentials based on average earnings of high school completers and individuals in any combination of full-time work and study.
US	Rouse (2005)	OLS returns to education (including VET certification) in Australia, adjusted for ability and social returns to schooling. Uses 2001-2005 waves of the HILDA longitudinal survey.

| | AfEE (2010) | Accrued (working-life) costs of Year 12 non-completion and long-term disengagement. Income and public expense differentials based on average earnings of high school completers and individuals in any combination of full-time work and study. |
| EU | Eurofound (2012) | Accrued earnings and income tax deficits due to high school non-completion in the US. Individuals categorized into three groups: no high school diploma, diploma only, and at-least a diploma (some post-secondary education). |

Card (1999) observes that the bulk of contemporary econometric modelling of the economic returns to education can be traced to Mincer's (1974) pivotal regression of Becker's (1964) human capital production theory. A litany of studies has subsequently expanded upon Mincer's framework (for a thorough review of recent research, see Blundell et al., 2005; Card, 1999; Cunha & Heckman, 2007; Harmon et al., 2000; Rouse, 2005). Controlling for select background characteristics such as education of parents, intrinsic ability and socioeconomic status, researchers generally concur that there is a positive linear correlation between educational attainment and earnings (Levin et al., 2007). In light of the wide body of evidence linking higher levels of educational attainment to greater earnings, this relationship is generally treated as causal (Belfield & Levin, 2007).

Much of the research ostensibly evaluating the costs and benefits of secondary educational interventions does not actually enumerate the economic returns attributable to participation in such programs, *per se*. Rather, researchers in Australia (Access Economics, 2005, 2008; Allen Consulting, 2003; Applied Economics, 2002), the US (AfEE, 2010; Belfield & Levin, 2007; Levin et al., 2007; Rouse, 2005), Canada (Hankivsky, 2008), Ireland (Smyth & McCoy, 2009), Estonia (Anspal et al., 2011) and elsewhere in the EU (Eurofound, 2012), have tabulated the various costs of early school leaving. In a range of national settings, these studies model anticipated income, consumption and associated tax revenues—as well as public spending on welfare, health, crime and other social externalities—as a function of Year 12 completion. In some cases, the costs associated with improving aggregated high school graduation rates or of particular intervention programs are deducted to derive the net present value of increased Year 12 completion at a state or national level. The causal influence of high school completion on future wages is generally accepted *a priori*, informed by the long-established body of economic literature mentioned above. The impact of individuals' distinct background characteristics on their lifetime economic outcomes independent of education, however, is frequently disregarded (Brunello & De Paola, 2014).

In the UK, Godfrey et al. (2002) and Coles et al. (2010) extend the valuation exercise beyond Year 12 completion status, incorporating the concept of 'NEET' (not in employment, education or training) as a more inclusive indicator of engagement. NEET speaks to a broader

set of potential outcomes pertinent to the discussion about educational re-engagement programs. Hence NEET status may be a more appropriate indicative metric for the valuation of FLOs, for whom the re-engagement of disadvantaged young people is the key objective.

In Australia, Deloitte Access Economics (DAE) (2012) estimated the long-term economic returns to 'Hands on Learning' (HOL), a school-based FLO designed to prevent the impending disengagement of severely 'at-risk' students (see te Riele, 2012 for a critical discussion of re-engagement research vernacular). DAE surveyed 70 HOL participants to determine their post-school outcomes, finding that school completion for these young people is consistently over 95%, of whom approximately 76% find immediate employment and 22% enter into post-school vocational training. HOL participants had a mere 2% rate of unemployment directly after graduation (DAE, 2012). Using national data from the Australian Bureau of Statistics (ABS), the long-term economic trajectories of participants were estimated and then compared to the average labour force and earnings outcomes of early high school leavers. While DAE empirically differentiates post-school labour market outcomes to veritable program beneficiaries, its earnings estimates are nonetheless based on average national wages (by level of educational attainment) that do not account for the prior socioeconomic marginalisation of HOL participants. More recently in Australia, Lamb and Huo (2017) conducted a social return on investment analysis of the costs associated with Year-12 non-completion and long-term disengagement (i.e., persistently NEET). Using national census and labour force survey data, the authors estimate over $12.6 billion in excess fiscal costs attributable to the current cohort of early school leavers and $18.8 billion in excess fiscal costs attributable to long-term disengagement from education, training and employment.

Ordinary-least-squares regression

Despite widespread application of Mincer's Human Capital Production function, the true relationship between schooling and earnings remains the subject of considerable debate. As Card (1999) suggests, many researchers find a strict causal relationship between educational attainment and wages counterintuitive, particularly in light of markedly heterogeneous outcomes observed in the real world. With regard to the impact of engagement on educational and employment outcomes, where multiple dimensions demonstrate dynamic inter-dependence (Hale et al., 2015), the impact of any single dimension of engagement and related individual outcomes is patently confounded. Nonetheless, in education valuation studies, Year 12 completion (or its equivalent) is often implied to be the principal driver of future earnings.

This oversimplification of the relationship between youth educational attainment and adult earnings highlights a problematic trade-off inherent to parametric estimation: Mincer's seminal regression of log wages by years of schooling (controlling only for age and professional experience) fails to account for subsequently established correlations between earnings, schooling and myriad other background characteristics, including gender, place of residence, socioeconomic status (Marks & Fleming, 1998),[5] race (Heywood & Parent, 2012), Indigenous status (Biddle, 2006; Hunter & Yap, 2014), and disability (Brazenor, 2002), among others. By omitting potentially important explanatory variables, a parametric regression based on Mincer's specification is likely to misstate the influence of flexible learning on future engagement status and related economic outcomes.

On the other hand, if socioeconomic status and other background characteristics are highly correlated with one's educational attainment, these factors' impact on individuals' future economic outcomes will be difficult to distinguish from each other. In much of the contemporary research on the economic returns to education, this methodological trade-off has manifested in sparse model specifications and a failure to differentiate marginalised students according to relevant background characteristics. Consequently, quantitative estimations tend not to reflect disparate outcomes at the margins of the socioeconomic distribution.

As observed by Anspal et al. (2011) in their estimation of the costs of early school leaving in Estonia, the phenomenon of high school disengagement is anything but random. Indeed, educational researchers have identified a wide range of factors shown to influence the likelihood of school completion. In Australia, DEEWR (2011) highlight Indigenous status, remoteness of residence, health and disability status, and English-language proficiency as having significant influence on high school disengagement (on factors specific to the engagement of Indigenous Australians, see also MCEEDYA, 2010). In the UK, Coles et al. (2010) underscore additional risk factors for educational disengagement, including low socioeconomic status of parents, community decay, being in (state) care, teenage pregnancy, substance misuse, and criminal offending. Concurrently, many of these factors also influence employment status and other economic outcomes. Despite broad understanding of the limitations of parametric estimation, however, contemporary estimates of the cost of school non-completion have overwhelmingly dismissed the joint-determination of educational attainment and labour market participation. With few exceptions, income and public expenditure projections are built upon long-established, though potentially problematic, multiple regression coefficients.

Given the stark degree of socioeconomic stratification in Australia (Bray, 2012; Leigh, 2013), it is difficult to imagine the ability of a high school diploma alone to deliver a young

person from transgenerational social and economic exclusion. To wit, despite a doubling of Year 12 attainment (or equivalent) among Indigenous Australians aged 20-24 in the Northern Territory in the decade to 2016, nearly half of Indigenous young people in the region remain completely disengaged from work and study (ABS, 2006, 2016). The erroneous assumption—that upper-secondary education bears such palliative effect as to render one's socioeconomic and personal circumstances immaterial—is implied within analyses that overlook the interaction between individuals' background characteristics, educational attainment, macroeconomic realities, and long-term socioeconomic trajectories.

Instrumental variables

Educational attainment is strongly correlated with students' socioeconomic status and manifold other background characteristics. As highlighted above, such confounding relationships between independent variables necessarily limit the number of predictors that can be usefully included in an OLS regression of wages on education. Yet a parsimonious model that omits potentially significant background characteristics may produce biased coefficients for the specified explanatory variables. Economists have attempted to overcome the latter problem through the use of instrumental variables. In this approach, the problematic component—in this case, education—is regressed against an 'instrument' to generate an exogenous proxy (i.e., a proxy uncorrelated with any omitted variables implicit in the error term). For an instrument to be valid, its impact on the dependent variable (i.e., wages) must be mediated exclusively through the endogenous regressor being replaced. As the instrument does not impact the outcome of interest through interactions with the model's other predictors nor any omitted factor, it is resistant to collinearity and omitted variable bias, respectively. A sound instrument could thereby sidestep the requisite of an inclusively specified model in order to illuminate the true causal effect of educational attainment on wages.

In their pioneering work, "Does Compulsory School Attendance Affect Schooling and Earnings?" Angrist and Krueger (1991) famously utilized quarter of birth as an instrument for educational attainment in the United States, where children born in the first quarter of the year reached the age of sixteen sooner than their other classmates. In accordance with national compulsory schooling laws, students born in the first quarter of the year were eligible to leave school earlier than their counterparts and, on average, obtained fewer total years of education. As quarter of birth is ostensibly unrelated to either wages (the dependent variable) or the other predictor variables, it should generate a reliable approximation of the impact of educational attainment on future earnings. Their results largely mirror the coefficients produced by Mincer's OLS specification, reiterating the commonly held belief that increased educational attainment causes greater earnings.

In the spirit of Angrist and Krueger, subsequent studies have utilized a diverse range of instrumental variables to enumerate education's influence on labour market outcomes. Instruments for educational attainment have included quarter of birth (Staiger & Stock, 1997), tuition cost (Kane & Rouse, 1995), proximity of residence to college (Card, 1995b; Conneely & Uusitalo, 1998; Kane & Rouse, 1995), proximity of residence to high school (Maluccio, 1998), and changes in the minimum school leaving age (Harmon & Walker, 1995). For a detailed analysis of these studies, including target populations, instruments, controls and results, see Card (1999). Ryan (2003) exploits South Australia's *Early Years of Schooling* policy of the mid-1980s as a natural experiment indicating a strong causal effect of additional primary schooling on individuals' likelihood of full-time employment later in life.[6] In general, these scholars concur that established OLS coefficients accurately reflect a causal relationship between education and future wages.

Estimates of the cost of early school leaving—often undertaken to inform educational fiscal policy—have leaned uncritically on Angrist and Krueger's work with instrumental variables. Emboldened to presume the causal influence of education, many researchers simply delineate expected earnings according to individuals' nominal matriculation status (Rouse, 2005). With few exceptions, the impact of matriculation on wages is informed solely by the OLS specification described above.

Yet the use of instrumental variables to estimate the economic returns to education is also subject to a compelling, if less vociferous, body of criticism. Identifying a sound instrument is much simpler in principle than practice, as obscured and unintuitive correlations abound in the source data. On Angrist and Krueger, Bound and Jaeger (1996) question quarter of birth as a valid instrument for educational attainment. Among other objections, they note strong correlations between the instrument and other variables that may influence earnings. They underscore correlations between quarter of birth and school performance, health status, disparate birth rate seasonality by geographic region, and birth seasonality correlated with race, family income, and even personality. Furthermore, a weak correlation between the instrument and the endogenous variable, educational attainment, suggests that "race, geographic region of residence, and family background are potentially [...] important" (Bound & Jaeger, 1996, p. 14). More acutely, Bound and Jaeger stress that there is strong evidence of a "…direct association between season of birth and earnings, independent of the effect through education" (ibid, p. 18). Clearly, such an association would preclude quarter of birth as a valid instrument for educational attainment in the wage equation.

Angrist and Krueger's ground-breaking application of instrumental variables was, notably, undertaken using census data far removed from the modern epoch. The three cohorts of their 1991 study, born respectively in the 1920s, 1930s and 1940s, obtained their education

and subsequent employment in vastly different social, political and economic circumstances than faced by Australian youth today. Furthermore, Bound and Jaeger (1996) note that the correlation identified by Angrist and Krueger between quarter of birth and educational attainment had abated substantially for the latter cohort. Given the evolving role of education within a rapidly globalizing economy, it is scarcely prudent to ground contemporary Australian earnings projections on the experiences of a US-American generation who entered the workforce nearly a century ago.

The fallacy of the 'average' student

Irrespective of their statistical validity, neither adaptations of Mincer's basic OLS specification nor models utilizing instrumental variables are well suited to estimate the impact of flexible learning in Australia. Both frameworks provide a picture of the average effect of educational attainment on wages across the broad population, rather than an expected rate of return for individuals with particular background characteristics (Anspal et al., 2011). As a result, disparate personal, social, political and economic realities among disenfranchised young people risk being subsumed within the broader picture. Indeed, the pathways traversed by Australia's most disadvantaged students bear little resemblance to the country's 'average' economic outcome. Yet in estimating the impact of FLOs, it is precisely these marginalised young people who are of principal concern. Hence a model is required that can provide a valid estimate of the value of intervention that accounts for the distinct circumstances of Australia's most disenfranchised students.

MATCHING ESTIMATORS FOR TREATMENT EFFECTS

In order to quantify the long-term economic returns to FLOs, it is first necessary to recognise that disaffection with learning is a product of personal and structural circumstances that set FLO participants systematically apart from the majority of their counterparts in mainstream schooling. As FLOs address a broad spectrum of challenges faced by disenfranchised young people in Australia, gauging the full value of these programs requires a critical accounting of the myriad factors that impact a young person's life chances.

A review of the educational engagement and flexible learning literature (see, for example, Christenson et al., 2012b; M. Mills & McGregor, 2016, Myconos et al., 2016, respectively) and extensive field work at eight flexible learning sites in the Northern Territory, Queensland, Victoria and Western Australia served to identify a range of circumstances associated with youth disengagement from traditional forms of secondary schooling and, by extension, enrolment in a FLO. These circumstances, audited by FLO administrators and social workers as part of the student intake process, include educational experiences, interpersonal issues,

health and wellbeing status, and numerous socioeconomic and demographic characteristics. Table 4.3 provides a breakdown of the factors understood to play a role in the educational (dis)engagement of young people attending FLOs.

Table 4.3. Determinants of educational engagement

Domain	Issue	Indicator
Educational	Learning support	-literacy, numeracy; learning disability; English as an additional language
	Engagement	-attendance, participation; interrupted schooling
	Personal support	-school follow-up re. absences, significant events
	Discipline	-removals, detention, suspensions, expulsion
Interpersonal	Peer connections	-communication, empathy, cooperation
	Belonging	-friendships; social, cultural isolation; bullying; peer influence
	Carer responsibilities	-parenthood, other carer responsibilities (incl. for adults)
Health & wellbeing	Home Environment	-domestic cohesion, family support; abuse/neglect; mobility (i.e., frequent moving); in state/residential care
	Physical health	-sleep, diet; hygiene; disability, medical condition; exposure to violence
	Mental & emotional health	-trauma, adjustment; anger, anxiety, depression, self-harm; behavioural disability; attention
	Empowerment	-self-regard, locus of control, dispositional optimism, resilience; motivation, personal organisation, goal-setting, satisfaction
	Substance misuse	-nicotine, alcohol, narcotics, volatile substances (e.g., chemical inhalants)
	Youth justice involvement	-trouble with police (general); engaged in crime, juvenile incarceration
Socioeconomic & demographic	Poverty	homelessness (incl. couch surfing); prohibitive costs of transport, housing, food, schooling
	Indigeneity	-social & cultural capital; remoteness of residence, separation from kin networks, boarding (residential schooling)
	Refugee status	-social & cultural capital; facilitated transition (esp. by family); previous access to schooling

In myriad ways, FLO participants are distinct from the 'typical' Australian student. These diverse young people arrive at flexible learning amid extraordinary circumstances, challenges and uncertainty. Each of the determinants listed here may lead a student down the path of disengagement, and many young people experience a complex array of risk factors simultaneously. As such circumstances contribute to students' propensity to disengage from mainstream schooling (and enrol into a flexible learning alternative), they must be accounted for in the estimation of FLO participants' long-term engagement status and subsequent economic trajectories.

In scientific contexts, intervention impacts are often investigated through experimental analysis. In such experiments, study participants are randomly assigned to treatment and

control groups. Random assignment is critical, as it allows participants' varied background characteristics to be evenly distributed across the groups to be compared. In clinical trials of a novel drug therapy, for example, mean differences that emerge during the course of the experiment can be ascribed explicitly to the therapy under investigation, as random assignment ensures potentially mitigating factors are not particular to either the treatment or control group (Gemici et al., 2012).

Yet in education studies, experimental analysis is frequently impossible or inappropriate. In the valuation of alternative education, for example, it would be unfeasible to randomly assign students to 'treatment,' i.e., participation in a flexible learning program. In reality, students at-risk of disengagement 'self-select' into intervention programs based on individual circumstances that systematically distinguish them from non-participants. In the case of FLOs, the non-random nature of student enrolment obscures the extent to which outcomes are attributable to the intervention rather than students' own background characteristics. This so-called 'selection bias' is a stumbling block for estimating the impact of flexible learning programs with non-experimental data.

Propensity score matching

Propensity score matching (PSM) for the non-parametric estimation of treatment effects— among other matching estimators techniques—can closely approximate the utility of randomized controlled trials. Using observational data, subjects likely to participate in flexible learning may be paired with appropriate controls according to a comprehensive profile of shared background characteristics. Based on their individual 'propensity scores'— i.e., the conditional probability of selecting into a flexible learning program given a defined set of observed characteristics (Rosenbaum & Rubin, 1983)—participants may be compared with non-participants who are otherwise sufficiently similar. Consistent with the prevailing vernacular of the matching estimators literature (popularised through observational studies in health), flexible learning participants are deemed in the dissertation to have been assigned to 'treatment,' with non-participants assigned to 'control.' As treated individuals and the controls with whom they are matched share in common all potentially mitigating factors, the emergent differences between them can be ascribed to participation in FLOs.

As described by Rosenbaum and Rubin (1983, pp. 41-43), Imbens (2004, pp. 5-6) and Austin (2011a, pp. 401-403), let $z = 1$ and $z = 0$ denote assignment into the treatment and control groups, respectively. Let $e(x)$ denote the 'propensity score,' i.e., the probability of assignment to treatment, $pr(z=1)$, given the observed vector of covariates, x,

$$e(x) = pr(z=1|x). \tag{1}$$

The propensity score is typically estimated through a logit or probit regression of the treatment status, z, on the vector of observed covariates, x. Once the conditional likelihoods of assignment to treatment have been estimated, treated observations may be matched with controls based upon the similarity of their propensity scores. While several matching methods exist, the applied cases of Chapter 5 and Chapter 6 utilise one-to-one, 'nearest-neighbour' matching with replacement within specified maximum bounds, demonstrated by Austin (2010, 2011b) to minimise the mean squared error of the estimated treatment effect when at least one of the covariates is continuous. The observed outcome(s) of each control observation is then used to impute the counterfactual outcome(s) of the treated observation with which it was paired. The difference between the observed and imputed values comprises the treatment effect for that individual. To compute the average treatment effect, let the treatment effect for individual, i, Y_i, equal the outcome under the treatment condition, $Y_i(1)$, less the outcome under the control condition, $Y_i(0)$, noting that only one of these two outcomes is actually observable for any individual. The average effect among treated individuals in the population, *PATT*, is

$$\tau_T^P = E[Y_i(1) - Y_i(0)|z=1] \qquad (2)$$

where E is the expected (i.e., average) value in the population, and the average effect among treated individuals in the sample, *SATT*, is

$$\tau_T^S = \frac{1}{N_T} \sum_{i:z_i=1} [Y_i(1) - Y_i(0)] \qquad (3)$$

where $N_T = \sum_{i=1}^{N} z_i$ is the number of treated individuals. The sample average treatment effect for the treated, S*ATT*, is simply the difference between the mean effects of the treated and control groups (for a continuous outcome), or the difference in the proportions of treated and control observations experiencing an outcome (in the case of a dichotomous outcome) (Austin, 2011a, p. 404). Note that while the sample estimator, τ_T^S, is the best unbiased estimator of the treatment effect among treated individuals in the population, τ_T^P, without further assumptions, no information about the latter is provided by the sample estimand (Abadie & Imbens, 2016).

Estimation of the average effect of treatment among the treated in the sample, *SATT*, is predicated upon the conditional independence (i.e., unconfoundedness) of assignment to the control group,

$$Y(0) \perp z|x \qquad (4)$$

and a conditional probability of treatment assignment for the individual, i, $pr(z=1|x)$, less than 1:

$$e_i = pr(z_i = 1 | x_i) < 1 \qquad (5)$$

The former implies that given the observed set of characteristics, x, assignment to treatment or control is functionally random (hence the parallels drawn between matching for estimation of treatment effects and randomised controlled trials). As with regression-based models for the estimation of treatment effects (Austin, 2011a, p. 403), the conditional independence of treatment assignment assumes that all confounding variables have been measured. The second assumption ensures the necessary overlap in the distributions of covariates in the treatment and control groups. Note that the assumptions concerning the conditional independence of treatment assignment and overlap are less restrictive for the estimation of the *SATT* and *PATT* than for the estimation of the sample and population average treatment effects, *SATE* and *PATE*, respectively (Abadie & Imbens, 2016, p. 8).

Finally, Abadie and Imbens (2016) adjust estimation of the average treatment effect to account for the fact that the propensity score itself is (typically) estimated, not known, yielding the propensity score matching estimator *(SATE)*:

$$\hat{\tau}_{t,N}(\hat{\theta}_N) = \frac{1}{N_1} \sum_{i=1}^{N} W_i \left(Y_i - \frac{1}{M} \sum_{j \in \Im_M(i,\hat{\theta}_N)} Y_j \right) \qquad (6)$$

And the large sample variance of the matched estimator *(SATE)*:

$$\hat{\sigma}_{adj,t}^2 = \hat{\sigma}_t^2 - \hat{c}_t' \hat{I}_{\theta^*}^{-1} \hat{c}_t + \frac{\widehat{\partial \tau_t'}}{\partial \theta} \widehat{I}_{\theta^*}^{-1} \frac{\widehat{\partial \tau_t}}{\partial \theta}. \qquad (7)$$

This adjustment is incorporated within the *teffects psmatch* subroutine of the *STATA 15* statistical package used in the applied cases of Chapter 5 and Chapter 6 of this dissertation. The derivations presented here are fully explicated with underlying proofs by Imbens (2004) (Eq. 2, 3) and Abadie and Imbens (2016) (Eq. 6, 7).

PSM has been used to estimate causal treatment effects in a number of social fields, including education and labour economics (Gemici et al., 2012). In the United States, Dehejia and Wahba (1999) demonstrated the utility of this approach by reproducing validated estimates of the impact of a national labour training program on post-intervention earnings. Elsewhere in the US, Morgan et al. (2008) used PSM to estimate the treatment effects of special education services for children with disabilities. To compare the social and economic costs associated with being NEET across European Union member states, Eurofound (2012) employed a matching estimators technique. Utilizing the European Labour Force Survey, the study first distinguishes short-term, seasonal NEET status from the longer-term NEET condition associated with educational disadvantage and disaffection (on this distinction, see also Lamb & Huo, 2017); the latter are independently associated with both NEET status and

detrimental social and labour market outcomes. The authors then use PSM to compare cohorts of NEET and non-NEET individuals with similar background characteristics. Eurofound's approach (partially) reconciles labour market outcomes with individuals' background characteristics, providing a clearer picture of the consequences of disengagement for young people facing particular social and economic obstacles.

Gemici et al. (2012) suggest the use of PSM analysis to estimate the impact of vocational education and training (VET) programs in Australia. They observe that Australia's ongoing Longitudinal Survey of Australian Youth (LSAY), and Household, Income and Labour Dynamics in Australia (HILDA) survey provide rich data to support such an undertaking. Despite the potential value of this approach, however, a matching estimators technique has not yet been used to estimate the costs of being NEET in Australia, nor the benefits of educational engagement for disenfranchised young Australians.

Limitations

Propensity score matching analysis is, of course, not without constraints. The use of matching for the estimation of treatment effects has grown in popularity in a range of economic sub-disciplines, from education to applied health, labour, management, finance and more. Alongside this corpus, a critical methodological literature has emerged, critiquing various (mis)uses of the propensity score and offering guidance for best-practices in the application of matching estimators techniques.

Foremost, matching on the propensity score can only approximate conditions of random assignment. PSM remains sensitive to issues of endogeneity (e.g., due to unobserved confounding variables), so it is imperative that the model be correctly specified. That is to say, individuals in the treatment and control groups must be matched on all relevant factors impacting both the treatment and outcome models under investigation (Rosenbaum & Rubin, 1983). As such, utilising PSM analysis to estimate returns to participation in flexible learning in Australia is necessarily data-intensive, requiring broadly based longitudinal data from which to draw fully articulated participant and control groups. It must be reiterated that the problem of endogeneity is by no means exclusive to the estimation of the propensity score; essentially all regression-based inferential statistics are prone to this type of misspecification and, generally speaking, there are no exhaustive tests for exogeneity (at the very least that are concordant with the use of matching estimators). A common method for the mitigation of suspected endogeneity entails the identification of an instrumental variable or control function. In this case, however, plausible detection requires its built-in solution: only by deploying the instrument can the endogeneity even be identified. Furthermore, at least one instrument is required for each suspected endogenous variable, likely outstripping the

capacity of the available data. Yet even in the event that an unlikely number of macro-economic or natural phenomena yield sufficient instruments, Wooldridge (2016) demonstrates that partial remedies through the use of such proxy variables is ultimately inappropriate in the estimation of propensity scores for the purpose of matching.

> [W]hen treatment is endogenous and cannot be made ignorable by conditioning on covariates […] including in a regression analysis any functions of instrumental variables, along with an endogenous explanatory variable and other covariates leads to more asymptotic bias than excluding the instrumental variables. The exception is when there is no bias in the short regression to begin with, in which case including instrumental variables among the covariates reduces precision. (p. 233)

Chenhall and Moers (2007) maintain that while econometrics has an important role in understanding the issue of endogeneity, it cannot solve it. Rather, they conclude, inclusion of covariates must be based on logical, theoretically supported relationships in the treatment and outcome models (p. 175). Granting precedence to statistical significance over common sense—that is, including covariates based on apparent mathematical correlation no matter how abstruse their relationship in reality—would be allowing the tail to wag the dog, so to speak.

King and Nielsen (2016) offer criticism of the use of propensity score matching in observational studies, warning that as it is commonly used, propensity score matching can exacerbate "imbalance, inefficiency, model dependence, research discretion and statistical bias" and that if the underlying data are so imbalanced as to benefit from balancing on the propensity score, "the data are not very useful for causal inference by any method" (p. 1). The authors stress the issue of 'model dependence,' in which (frequently large) differences in estimated treatment effects emerge from differently specified models of equivalent fit. All of which begs the question—even in the case where an author reports multiple disparate results—of the researcher's own discretion in model selection and selective reporting in accordance with personal preference. Suggested best practices include increased researcher transparency with regard to the selection of covariates including, where possible, covariate scaling in accordance with prognostic importance; use of appropriate post-estimation balancing diagnostics; and iterative balance assessment and treatment model (re)specification. To these ends, the empirical applications to follow utilise Austin's (2009) quantitative balance assessment criteria in the iterative development of the treatment models.[7]

CONCLUSION

This chapter briefly locates FLOs within Australia's national policy response to early school leaving and youth disengagement. Amidst the rapid expansion of this sector, flexible learning practitioners have cited a perceived need to substantiate the long-term social and economic benefits tied to FLOs. To date, however, few studies have undertaken any such valuation. A review of the literature uncovers two principal shortcomings in the prevailing quantitative paradigm for estimating the long-term impact of secondary-level educational interventions. The first is methodological. The purported causal relationship between education and earnings obscures systematic differences in young people's access to education and subsequent socioeconomic opportunities. The most commonly employed statistical model, an OLS regression of wages on years of schooling, implicitly assumes that a young person's level of educational attainment is unrelated to her socioeconomic status, region of residence, health, experience of schooling or other background characteristics. Yet research shows that these characteristics bear direct influence on both educational attainment and labour market participation, violating independence assumptions fundamental to the OLS estimation. Moreover, generalised assertions about the average earnings of early high school leavers and graduates do little to inform the development of cogent intervention strategies for disadvantaged young people living on the margins of society. Overcoming intergenerational cycles of disadvantage and poverty mandates a clear understanding of what works for young people most at risk of experiencing disengagement.

The second deficiency is conceptual. Estimation of the long-term economic returns to FLOs need not be delimited to the earnings premium ostensibly conferred upon high school graduates. FLOs address a wide range of challenges faced by disenfranchised young people in order to facilitate their successful transition from secondary education. If FLOs' other programmatic outcomes affect the lifetime trajectories of marginalised young people, then these impacts should also be taken into account in the valuation exercise. Flexible learning practitioners recognise that a young person's future pathways are a function of much more than high school completion. In reality, an assortment of personal, social, economic and political factors serves to promote or impede an individual's likelihood of success. At the same time, education's so-called 'soft' outcomes—such as enhanced personal agency, wellbeing, resilience and empathy, to name a few—have been given short shrift in the econometric literature. By discounting the complexity of a young person's learning experience and transition into the labour force, existing valuations have failed to encapsulate alternative education's broader aims, and may thereby misstate the full consequences of disengagement.

Propensity score matching, a matching estimators technique for the estimation of treatment effects, is presented as an alternative research framework for exploring the social and economic returns to the re-engagement of young people through FLOs. Treatment effects estimation explicitly takes into account the issues of selection bias and endogeneity, allowing for causal effect estimates using observational data. The following two chapters of the dissertation comprise empirical applications of the propensity score matching framework. Importantly, the econometric exercise is extended beyond attainment-based earnings differentials to encompass learning outcomes strongly valued by flexible learning practitioners themselves.

Chapter 5 examines the impact of (dis)engagement in youth upon the long-term engagement status of disadvantaged young people. Utilising data from LSAY/PISA (2003 cohort), propensity score matching is applied to estimate the reduced likelihood of adult disengagement (age 23/24) resulting from the prevention of disengagement at age 15-17. Estimation strategy, model specification, results and balance diagnostics (including evaluation of common support, empirical distributions of covariate means and prevalences, and variance ratios) are discussed.

Chapter 6 estimates the causal effect of young people's sense of belonging at school on their quality of life as adults. Data from LSAY/PISA (2003 cohort) are used to investigate the influence of social marginalisation upon respondents' subsequent happiness with their professional horizons, social life and economic status, as well as their likelihood of experiencing psychological distress in young adulthood. Propensity score matching is utilised to estimate the impact of improving marginalised students' sense of belonging in school (age 15/16) on their subsequent life outcomes (age 23/24, age 25/26), controlling for factors shown to jointly determine social marginalisation at school, life satisfaction and mental and emotional wellbeing. Estimation strategy, model specification, results and estimation diagnostics are discussed.

The empirical applications of Chapter 5 and Chapter 6 are followed by a brief concluding section, including a summary of the dissertation's main findings, its theoretical and methodological contributions to critical educational scholarship, potential directions for future research and concluding remarks.

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1 Clarke (2012b) problematises the Rudd government's invocation of the nation's social democratic tradition in pursuit of Quality Education's quintessentially neoliberal reform agenda.

2 The Victorian Council of Social Services (VCSS) submitted to the Senate Select Committee that Youth Connections had been highly successful in sustaining workplace participation, citing a 94% success rate in keeping participants engaged after six months. This was contrasted with a paltry 22% success rate of 'Work for the Dole' (SSC, 2015, p. 16).

3 Analysis of Liberal/National Coalition policy is 'current' as of November, 2018. In August, 2018, a Liberal party leadership spill initiated by Minister for Home Affairs Peter Dutton resulted in the deposition of then Prime Minister Malcolm Turnbull, replaced by former Treasurer Scott Morrison.

4 Notwithstanding a higher average per-student cost, J. Thomas and Nicholas (2018) found that on the whole, FLOs likely generate a positive social return on investment—conservatively estimated to be between 5.9 and 17.6 dollars (AUD) per dollar invested.

5 Marks and Fleming (1998) identify a "small" correlation between earnings and socioeconomic status—proxied by parent employment status. Though statistically significant, this relationship is not given substantial weight in their analysis.

6 See also Rummery et al. (1999), who implement the rank-order instrumental variable procedure of Vella and Verbeek (1997). Observations are grouped by state and then ranked according to their position in the distribution of heterogeneity. Differences in wages between similarly ranked observations are explained by disparate educational attainment. In contrast to the 'natural experiments' of the aforementioned studies, students' relative statistical positioning serves as the instrument, rather than some innate background characteristic such as quarter of birth.

7 Due to a lack of quantitative theory concerning select determinants' (cardinal) relative importance, scaling has not been undertaken in the empirical applications of Chapter 5 and Chapter 6. Future research in this area may benefit from the development of supported criteria for determinant scaling.

5. THE VALUE OF ENGAGEMENT

Market-based Returns to Behavioural Engagement in Youth†

INTRODUCTION

FLOs aim to promote the educational re-engagement of disadvantaged young people for whom traditional schooling has not worked well. Many participants transition to flexible learning amidst a gradual process of disengagement from mainstream schools, while others have disengaged from formal education entirely. A minority of flexible learning participants have been absent from any form of accredited learning for months or even years. Given the profound conditions of disadvantage faced by members of the flexible learning cohort, practitioners often point to attendance itself as a valuable and noteworthy outcome (see Chapter 3). Were it not for the FLO, it is reasoned, many participants would be completely disengaged, bearing significant personal, social and economic costs. Yet little research thus far has aimed to substantiate the claim that FLOs contribute to participants' engagement beyond the period of their participation. This issue is significant, as estimates of the long-term economic and social benefits of participation in flexible learning are predicated upon the assumption of these programs' durable impact. The present chapter addresses this lacuna, complementing the growing body of qualitative evidence of flexible learning outcomes with a quantitative investigation of the causal impact of youth engagement on at-risk individuals' subsequent education, employment and training status.

Theory of 'engagement'

Critical scholars have recognised educational engagement's manifold, often overlapping dimensions (and the variability of their definitions) (Appleton et al., 2008; Fredricks et al., 2016). The usefulness of engagement as a theoretical construct in education studies is

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† Parts of the original work contained within this chapter have been published as:
Thomas, J. & Nicholas, C. (2018). Estimating the economic returns to flexible learning options in Australia—A social return on investment analysis. Townsville: James Cook University. Available at https://youthplusinstitute.org.au; and
Thomas, J. & Welters, R. (2017). The importance of belonging—The Impact of Young People's Sense of Belonging at School on their Quality of Life as Young Adults. In S. McGinty, K. Wilson, J. Thomas, & B. Lewthwaite (Eds.), Gauging the Value of Education for Disenfranchised Youth—Flexible Learning Options. Leiden: Brill Sense.

informed by the understanding that academic achievement is (at least in part) a product of factors intrinsic to the individual student, as well as structural factors that condition students' immersion within the learning environment. Reschly and Christenson (2012) characterise contemporary engagement literature as fragmented between three broad schools of thought: (1) dropout prevention theory and intervention, (2) general school reform perspective, and (3) student motivation.

There is an emerging consensus among educational scholars regarding the multidimensional nature of engagement. In a meta-synthesis of educational engagement literature, Appleton et al. (2008) identify that older models of engagement expressed at least behavioural (i.e., student conduct, including participation and attendance) and affective (i.e., self-conceptual, emotional and inter-personal) dimensions (Finn, 1989). Subsequent theorisation tended to include a mental (i.e., cognitive investment) dimension (Fredricks et al., 2004). Fredricks et al. (2016) have appended to these syntheses notions of social-behavioural, agentic and volitional engagement (i.e., energy as action).

Flexible learning pedagogy, articulated in Part I of this dissertation as a form of 'critical democratic' engagement (McMahon & Portelli, 2004), reflects a holistic understanding of youth educational engagement. 'Democracy,' understood here as a way of being, constitutes an "ongoing reconstructive process" through which the institutionalised disenfranchisement of young people may be critically deconstructed and effectively challenged (p. 13). Critical democratic engagement as practised in FLOs represents the discursive development of values, skills and worldviews between student and educator. These deeply personal interactions produce individually tailored learning experiences founded on equity, respect and the value of the individual, irrespective of circumstance. The effective engagement of marginalised students is therefore incompatible with a 'one size fits all' approach (Zepke, 2014) and a young person's experience of disenfranchisement should be understood as a uniquely personal one. At the same time, "when the groups that disengage from schooling are considered, the topic reveals itself as a broad issue of social justice" (M. Mills & McGregor, 2016, p. 12).

Disengagement from schooling is closely related to civic disengagement and workforce (i.e., community) non-participation. Indeed, the latter phenomena share with educational disengagement a number of common drivers, including low socioeconomic status, familial instability, young carer responsibilities, poor attachment to school, low academic achievement, mental illness, exposure to and engagement in substance misuse, criminal offending and various other manifestations of personal insecurity (Burns et al., 2008, p. 25). While organising their efforts principally around the objective of educational re-engagement,

FLOs are concomitantly addressed to the phenomenon of youth disengagement in this broader sense (Myconos et al., 2016).

Overcoming barriers to engagement

Leading scholars in the field of flexible learning in Australia have consistently reiterated the strong and persistent influence of socioeconomic disadvantage on the engagement of young people, citing well-established links between the social, economic and political marginalisation of young people and the phenomenon of disengagement (see, for example, M. Mills et al., 2016). Te Riele (2017, p. 10) correlates the sharp increase in demand for flexible learning in Australia to persistent "social inequality, a precarious youth labour market, and educational policy pressures" serving to alienate ever larger numbers of young people from traditional school settings. "The response of FLOs to these complex and inter-related features of disenfranchisement," te Riele concludes, "is based on notions of social justice. Drawing on the use by M. Mills et al. (2015) of Nancy Fraser's framework, these responses can be understood to relate to distribution, recognition and representation" (te Riele, 2017, p. 5).

Against this backdrop, the authors explore two key mechanisms through which re-engagement in FLOs is enacted: the unconditional acceptance of young people and individualised wellbeing support integrated within the educational setting. Previously excluded young people thereby experience revitalised connections to learning characterised by choice, agency and personal value. FLOs therefore assist disengaged young people not only through a focus on 'traditional' academic outcomes such as literacy and numeracy, but also by cultivating young peoples' agency to challenge the systemic socioeconomic marginalisation of their communities. It is precisely this notion of 'engagement' that underpins the analysis of this dissertation.

Notwithstanding this critical conceptualisation of engagement—and its potential to interrupt the cyclical reproduction of socioeconomic disadvantage—educational 'accountability' frameworks frequently reduce the notion of engagement to its behavioural aspects alone (i.e., attendance, apparent retention and completion) (see Chapter 1 and Chapter 3, for example, regarding the non-measurement of student's affective, mental and volitional engagement in Australia's school reporting schemes). In public discourse concerning policy responses to youth unemployment, 'disengagement' is often no more than a superficial catchphrase (McMahon & Portelli, 2004; Zepke & Leach, 2010)—a synonym for early school leaving or a lack of participation in (typically full-time) education, training or employment. In light of this emphasis, the current chapter queries the importance of

disadvantaged youth's behavioural engagement with regard to their subsequent (dis)engagement status as young adults.

Methodological innovation

As previously discussed (see Chapter 4), disengagement from schooling is on the whole not random. That is, young people who disengage tend to share in common particular background characteristics, socioeconomic circumstances and (frequently negative) experiences of mainstream schooling. As such, estimating the impact of their behavioural engagement in education as young people (i.e., their enrolment, attendance and participation in schooling) is not simply a matter of comparing the outcomes of Year 12 completers against those of early school leavers. Indeed, the socioeconomic divergence of these two groups is almost certainly down to more than individual educational attainment. Furthermore, isolating the impact of behavioural engagement on individuals' long-term social and economic outcomes is confounded by the 'joint determination' of their engagement in schooling and subsequent socioeconomic trajectories. That is to say, the very factors that influence a young person's engagement in schooling are also likely to impact, inter alia, her participation in higher education, training and employment later in life. Establishing a causal relationship between school-age behavioural engagement and individuals' subsequent engagement status as young adults therefore requires that all such variables are controlled for.

This chapter employs propensity score matching analysis to estimate the causal influence of disadvantaged young people's behavioural engagement on their subsequent likelihood of disengagement from education, training and employment as adults. Use of this matching estimators technique addresses the problems of 'selection bias' (i.e., the grouping of disengaged young people according to traits that distinguish them systematically from their engaged peers), as well as the problem of 'joint determination,' (i.e., disentangling from individuals' personal economic outcomes the factors that simultaneously influence school-age disengagement and later participation in higher education, training and employment among young adults). Results suggest that keeping disadvantaged young people engaged until the school-leaving age reduces their subsequent disengagement risk as young adults, irrespective of academic achievement, socioeconomic status and other factors.

METHODS & DATA

Propensity score matching

Treatment effects estimation is undertaken here in two stages. In the first stage, the likelihood that a respondent will experience disengagement (age 15-17) is regressed on this

phenomenon's known contributing factors. That is, each individual's likelihood of being disconnected from education, training or employment at age 15-17 is calculated as a function of that individual's particular configuration of background characteristics, including her socioeconomic and demographic profile, affective and behavioural engagement in school, academic achievement, learning environment and academic expectations. This result, a probability between 0 and 1, comprises the individual's 'propensity score.' Importantly, the propensity score itself is statistically independent of each respondent's youth engagement status.

In the second stage of the analysis, respondents are divided into two groups: those who disengaged from education, training or employment as young people (age 15-17), and those who did not. These represent the study's 'treatment' and 'control' groups, respectively. Each respondent in the treatment group is then matched to a respondent in the control group with a similar propensity score. Properly specified, matching on the propensity score serves to balance the values of potentially confounding covariates between the treatment and control groups in the outcome model. In other words, balancing on the propensity score serves a function similar to random assignment into treatment and control as would occur in a controlled experiment. Respondents' outcomes may likewise be parsed according to whether they remain engaged at age 23/24 ('Outcome A') or not ('Outcome B') (see Figure 5.1). As would be possible with a randomised controlled trial, the average estimated difference in the proportion of disengaged adults between the treatment and control groups may be attributed to respondents' engagement status as youth. The estimated treatment effect may be interpreted as the reduced likelihood of adult disengagement (age 23/24) had disengaged young people remained in education, training or employment until the school leaving age.

Figure 5.1. Propensity score matching for the estimation of treatment effects
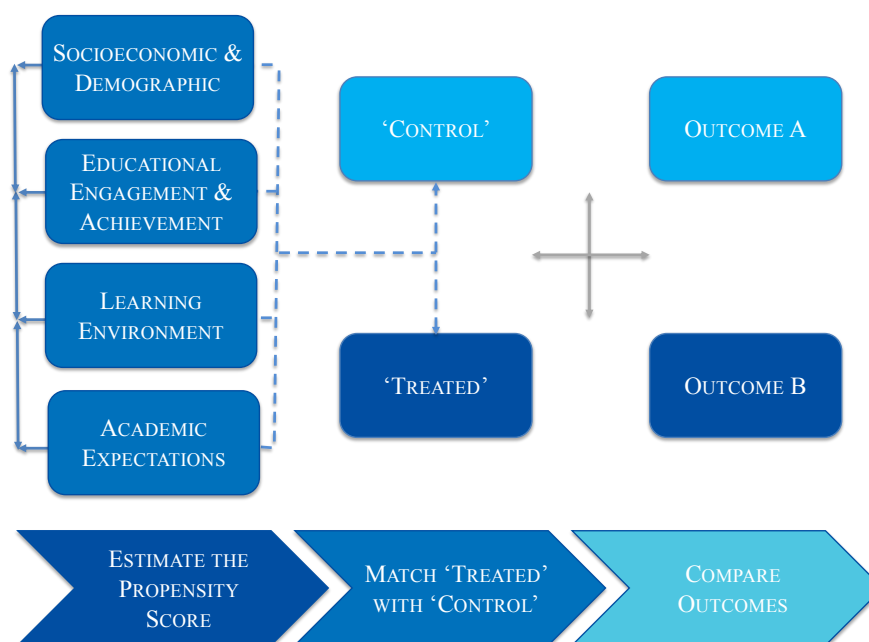
While the terms 'treated,' 'control' and 'treatment effect' may sound a bit bloodless in the context of a study of youth engagement, as if the researcher has 'injected' a catalyst of disengagement into a random sample of disadvantaged young people to monitor whether the inoculated present different outcomes than their counterparts. This prevailing terminology likely stems from matching estimators methods having gained popular traction and statistical refinement in the applied health sciences. The clinical vernacular is maintained here in order to (a) remain consistent with the broader propensity score matching literature and (b) emphasise the underlying motivation of propensity score matching analysis, which is to estimate the outcome of a hypothetical experiment using observational data.

Longitudinal Surveys of Australian Youth

Unfortunately, FLO service providers in Australia do not yet have adequate means to track young people in FLOs beyond the period of their participation. While efforts are underway to improve information gathering, the often 'messy' process by which young people transition from FLOs makes any such undertaking exceedingly difficult and cost-intensive. Should data tracking participants after their participation in a FLO become available, it would still be necessary to identify an appropriate control cohort against whom these participants could be compared. Further, disparate definitions about what constitutes 'flexible learning' (for elaboration, see te Riele, 2012) precludes the identification of student-level data pertaining to this sector in state and federal records. Hence, at present, an alternative source

of data is required within which a cohort of young people who adequately resemble FLOs participants may be identified.

To that end, both of this dissertation's applied cases exploit the Longitudinal Surveys of Australian Youth (LSAY) (see also Chapter 6). The LSAY gather data on young Australians as they transition from secondary schooling into further education, training and employment. To achieve this, the LSAY follow a nationally representative sample of approximately 10,000 young Australians from their mid-teens until their mid-twenties. Researchers conduct annual follow-up interviews to update respondents' progress. The initial interview—conducted since 2003 in concert with the PISA, an OECD research program comparing student performance across member nations (see Chapter 1)—is rich on demographic and school characteristics, the environment in which respondents grow up, academic achievement and students' qualitative perceptions about their educational experiences. Subsequent interviews focus on respondents' transitional pathways, further education and training, labour force participation, employment destinations, earned income and quality of life. The first cohort of young Australians was interviewed in 1995; subsequent cohort studies were initiated in 1998, 2003, 2006, 2009 and 2015. This study utilises information from the 2003 cohort, as that is the most recent cohort for which eleven waves of data were available at the outset of the research. The annual survey attrition rate is between seven and 14 percent. Therefore, of the 10,370 young Australians who started the survey in 2003 (15-17), only 3,741 completed the 11th wave in 2013 (aged 25/26). Of the latter group, 2,989 answered all questions relevant to the analyses presented in Chapter 5 and Chapter 6 of the dissertation; these respondents comprise the research sample in both empirical applications.[1]

The LSAY are an appropriate source of data for the present analysis as they provide broad coverage of factors known to influence the likelihood of disengagement before the school leaving age (age 15-17)—including respondents' socioeconomic and demographic background characteristics, schooling history, subjective experiences of the learning environment, academic achievement and engagement—as well as respondents' post-schooling participation in further education, training and employment.

Tracking (dis)engagement

The LSAY include a summary indication of respondents' current NEET status (i.e., full-time participation in education or employment at the time of the interview) (see Figure 5.2). The average aggregated proportions of respondents not in full-time education or employment (or some combination thereof) at the time of the interview are indicated by the horizontal lines (as LSAY data collection is concentrated between the months of September and December,

the data are discontinuous between the annual survey periods).[2] These proportions fluctuate across the time horizon of the survey between a minimum of zero (at the time of the first wave (2003), all respondents are necessarily engaged in schooling) and a maximum of around 22% in wave eight (2010, at which point respondents are 22-23 years old). A look at the monthly average NEET statuses (indicated by the curves about the individual wave means), reveals a high level of variability about the wave averages. If engagement status varies significantly with the month (e.g., in accordance with the school calendar or holiday shopping season), the mean NEET statuses aggregated for each wave may not provide a precise picture of the disengagement phenomenon at any particular point in time. Furthermore, as respondents are not consistently interviewed in the same month each year, without additional information an individual's own reported NEET status may not be comparable across waves, nor multiple individuals' statuses cross-sectionally within any given wave.

Figure 5.2. Not currently in full-time education or employment

Source: NCVER (2003)

The intra-wave variability apparent in Figure 5.2 motivates a reconstruction of respondents' NEET status with greater temporal sensitivity. The LSAY track a number of potential transitional pathways that may be incorporated within such a reconstruction.[3] Participation status is thus expanded to include: enrolment in formal education, spanning lower and upper-secondary schooling, including the International Baccalaureate; technical and further education (TAFE) and vocational education and training (VET), including certificate levels 1-4, diploma, advanced diploma and associate degree; and higher education, including university diploma and advanced diploma courses, bachelor degree, graduate diploma or certificate, and post-graduate degree, including a masters or doctoral degree. Respondents may also indicate participation in an apprenticeship or traineeship. Reported participation in

short (e.g., fortnight-long) and recreational courses is not taken into consideration in this study for the determination of engagement status. As LSAY respondents indicate the starting and completion dates (where applicable) of these various forms of participation, each respondent's historical education, training and employment status could be inferred on a month-by-month basis. This required mapping all combinations of participation in education, training and work undertaken by all respondents over 10-waves of the study (approximately 120 monthly statuses for each respondent, depending on the particular individual's age and interview date).[4] Respondents' aggregated (proportional) monthly NEET status is summarised in Figure 5.3.

Figure 5.3. Proportion of respondents not in full or part-time education, training or employment by month
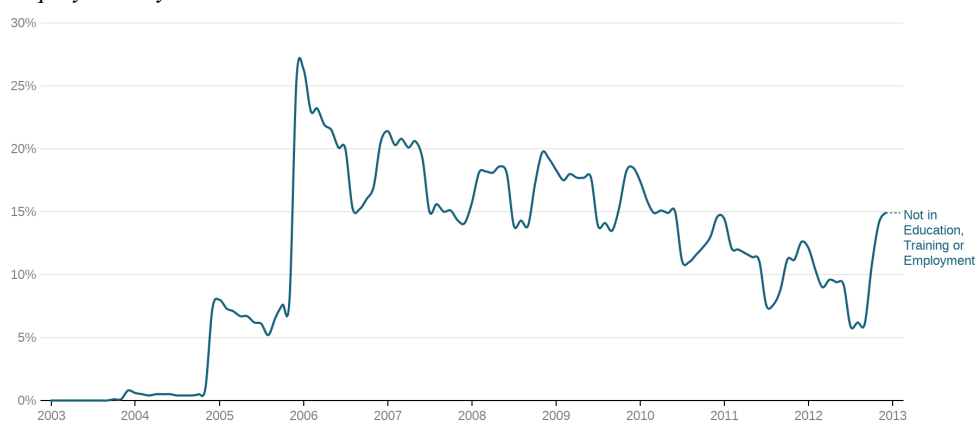
Source: NCVER (2003)

Examination of Figure 5.3 suggests a latent cyclicality in reported participation rates, with proportional NEET status peaking between December and February each year. This effect is potentially important, as it would imply that the month in which respondents participate in the survey may have a meaningful impact on the apparent disengagement rate. If, for example, the bulk of responses had been collected between May and September, rather than between September and December, the aggregated NEET rate would likely have been lower. It is therefore important to disentangle the aggregated disengagement rates from such time-based reporting effects.

The month-by-month mapping of respondents' participation also reveals limitations with regard to what LSAY's summary measure of NEET status is able to convey about the complex engagement patterns of highly disadvantaged youth and young adults. Disengagement is not a one-off event. The process by which a young person becomes disaffected with and disconnected from education and work is dynamic and typically

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protracted. Rather than a summary descriptor, the phenomenon of disengagement comprises an evolving response to barriers commonly faced by disenfranchised young people, as well as particular individual, family and institutional responses to these circumstances. Limiting the analysis to respondents' current participation status may obscure periods of participation (and non-participation) leading up to the interview. Just as a young person surveyed in the month between her completion of Year 12 schooling and university matriculation should hardly be considered 'NEET,' nor should a young person interviewed on the day of her enrolment in vocational training after nine months of non-participation be regarded as having remained fully 'engaged' throughout the duration of the survey period.

Furthermore, the 'engagement' of highly disadvantaged individuals takes many forms. For young people faced with poverty, mental illness, substance dependency or juvenile justice involvement, undertaking formal education, training or employment—even on an irregular or part-time basis—may rightfully be considered a significant and valuable indication of engagement.

For each of these reasons—the apparent cyclicality of reported engagement status, nature of disengagement as an evolving experience, and the varied legitimate formations of engagement among highly disadvantaged young people—the analyses of this dissertation require a more nuanced and responsive delineation of (dis)engagement status. By setting relatively restrictive criteria for disengagement, the analysis can be narrowed to LSAY respondents with the highest level of disadvantage, who are more similar to FLO participants than the 'average' LSAY respondent. That is, respondents who resemble FLO participants must be out of schooling, training and work to a more substantial degree and for a longer period to be classified as NEET than typically implied in mainstream usage of this term (i.e., not in *full-time* participation in some combination of study, training and work for any duration).

Defining treatment

In response to the issues outlined above—and with sensitivity to the deleterious effects entailed in the 'deficit' labelling of disadvantaged young people (McKay & Devlin, 2016)—respondents are characterised here as having 'experienced disengagement' as a young person up until the typical school-leaving age if they were fewer than six months in full or part-time education, training or employment in any consecutive 12-month period preceding an interview. Thus, a young person who from month to month revolved in and out of school or work would only be counted as having experienced disengagement if she had been

completely out of work, education and training for at least half of the preceding year—irrespective of her reported engagement status on the day of her interview.

It must be noted that reference to young people having 'experienced disengagement' also serves politically discursive ends. First, the intentional use of the present perfect (rather than the adjective, 'disengaged') emphasises the power dynamics of access and exclusion to which disadvantaged young people are subjected. The phenomenon of youth disengagement is thereby embedded within its structural context, downplaying its interpretation as an individual condition over which full personal agency is assumed. Reframing the issue of participation as a manifestation of social circumstance also rejects recent use of the term 'NEET' in the public beratement of unemployed young people (see, for example, Bita & Houghton, 2016) (see Figure 5.4).[5] Without extemporaneous comment on the original intent behind the term, repudiation of its neoliberal appropriation is purposeful and in the spirit of FLOs' socio-political critique.

Figure 5.4. News Corp's ersatz 'dole bludgers'

Source (composite): News Corp Australia (2016)

For the purpose of the matching estimators analysis, then, individuals characterised as having 'experienced disengagement' (aged 15-17) comprise the 'treatment' group. Conversely, respondents who remained in education, training or work for at least half of any consecutive 12-month period are classified as members of the 'control' group. The age ranges specified here for the determination of youth and young adult engagement status (aged 15-

17, 23/24, respectively; see also *Defining the outcome model* below) and coincide with targets set forth in the National Partnership on Youth Attainment and Transitions (CoAG, 2009b), which committed the Commonwealth and state and territory governments to improve the engagement and transition from schooling of young people aged 15-24. Disadvantaged young people aged 15-17 also comprises the bulk of the flexible learning sector's target demographic. The proportion of survey respondents who experienced disengagement (age 15-17) is presented in Table 5.1.

Table 5.1. Sample proportions by treatment status (age 15-17)

Treatment status	Frequency†	Percent†
TreatedExperienced disengagement (age 15-17)	154	5.15
ControlDid not experience disengagement (age 15-17)	2,835	94.85
Total	2,989	100.0

† Frequency and percent prevalence reflect attrition through wave 11.

Specification of the outcome model

Like their younger counterparts, marginalised Australian adults must overcome considerable personal, social and structural impediments to equitable participation. It is therefore important to acknowledge these individuals' efforts to engage, even if they remain excluded from full-time employment, education and training. Thus the outcome measure of the present study likewise substitutes respondents' current participation status for a more nuanced indication of their evolving scope of engagement. Figure 5.5 presents the monthly aggregated rates of non-participation for all waves of the survey. Two specifications of 'experienced disengagement' are explored. The first (in red) delineates having 'experienced disengagement' as non-participation in formal education, training or employment in at least six of the previous twelve months. As can be seen, this level of (dis)engagement is apparently common among young adults in the survey cohort, with a maximum non-participation rate of over 22% coinciding with young people reaching the school leaving age. Even in the latter waves, though, between 10% and 13% of respondents aged 23/24 may be considered to have 'experienced disengagement' as previously defined. As a primary objective of the research is to identify LSAY respondents with levels of disadvantage akin to flexible learning participants, the six-month delineation of non-participation is apparently too broad. Specification of the outcome model, i.e., the criterion for a respondent to be regarded as having experienced disengagement at age 23/24, is therefore narrowed to include only those who have experienced at least nine months of non-participation in education, training or employment in the previous 12 months.

Figure 5.5. Experienced disengagement by treatment
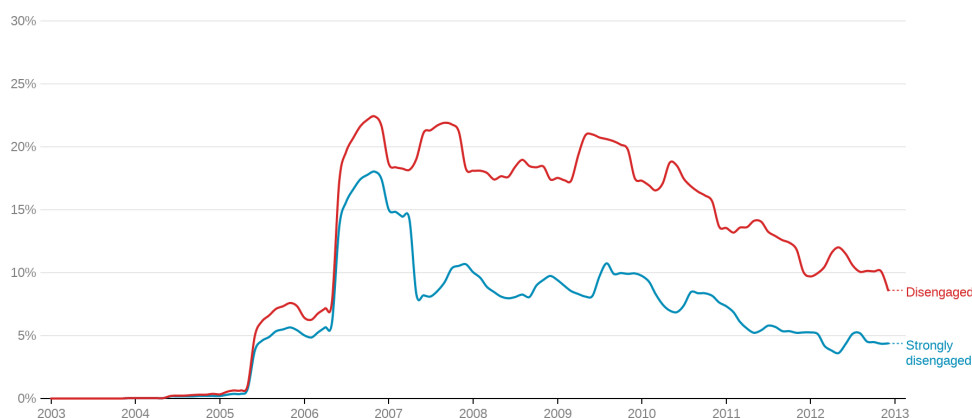
Monthly rates of having 'experienced disengagement' in accordance with this more restrictive criterion are presented in Figure 5.5 (in blue). As shown, the proportion of young adults regarded as having experienced disengagement falls to approximately half of the previous indication, or around 5% of respondents aged 23/24. The outcome model 'experienced disengagement' henceforth refers to this more narrowly defined condition. By doing so, the analysis more closely tailors the outcome model to the treatment group under consideration.

Descriptive statistics presented in Table 5.2 summarise the proportion of young adults (aged 23/24) considered to have experienced disengagement, by youth engagement status (age 15-17). Among respondents who experienced disengagement at age 15-17, approximately 19% subsequently experienced disengagement at age 23/24. Among all respondents who remained engaged until the school leaving age, only 12% went on to experience disengagement as young adults (age 23/24).

Table 5.2. Proportion of young adults (age 23/24) who 'experienced disengagement' by treatment status

Treatment status	Experienced disengagement (age 23/24)
Experienced disengagement (age 15-17)	0.19 (0.32)
Did not experience disengagement (age 15-17)	0.12 (0.40)
Number of observations	2,989

Note: standard deviation in parentheses

As yet unaccounted for are the numerous background and environmental factors know to impact engagement, first in youth and subsequently in young adulthood. As identified by

Myconos et al. (2016) and others (see Table 4.3) disadvantaged young people face a range of dynamically interdependent barriers to educational, workforce and civic engagement, including "interrupted schooling, low literacy and numeracy, learning disabilities, anxiety and depression, substance misuse, socio-economic insecurity, physical insecurity and youth justice involvement" (p. 346). The purpose of the propensity score matching analysis that follows is to unpack the causal effect of remaining engaged as a young person by controlling for these potentially confounding variables.

Determinants of treatment

As previously discussed, young people at high risk of educational disengagement tend to differ systematically from their peers with regards to a range of personal background characteristics and contextual factors (see Chapter 4, Table 4.3). Insofar as these variables have the potential to bias estimates of treatment effects, they must be balanced through proper specification of the treatment model (Heckman et al., 1997). In their explication of the propensity score, Rosenbaum and Rubin (1983) characterise assignment to treatment under the assumption of conditional independence as 'strongly ignorable.' In the potential outcomes framework, the conditional independence assumption must be satisfied in order to assume exogeneity of the error term of the treatment model (i.e., the estimated probability of assignment to treatment must not be confounded by latent covariance between unobserved joint determinants and specified regressors. Caliendo and Kopeinig (2005) stress the inclusion only of variables that jointly determine both selection into treatment and the outcome under scrutiny. Furthermore, as the underlying objective of matching on the propensity score is to engender a balance of potentially confounding covariates between treated and control groups, Rubin and Thomas (1996), among others, strongly discourage exclusion of potentially relevant variables on the basis of statistical (in)significance (in Gemici, Rojewski & Lee, 2012).

Austin et al. (2007) showed that model overspecification, that is, inclusion of covariates that predict treatment assignment but are weakly or not correlated with the outcome model, may reduce the number of matched pairs that can be formed under constraint of calipers (see *Treatment effects* below for elaboration on the use of calipers). However, iterative development of the treatment models revealed that exclusion of covariates with theoretically weaker association with the outcome models did not result in a substantially lower number of matches nor meaningfully impact estimates of treatment effects. All identified covariates bearing theoretically supported associations with the disengagement status of disadvantaged youth and young adults are therefore retained in the final specification of the model.

Indicative bivariate associations—between covariates and treatment status, and between covariates and the model outcome—are presented in Table 5.3 and Table 5.4, respectively.

Table 5.3. Bivariate (probit) regression coefficients—determinants of treatment by treatment status

Determinants of treatment	Experienced disengagement (age 15-17)
Socio-demographic background	
Gender (1 if female)	- 0.10 (0.08)
Indigenous (1 if yes)	0.34 (0.18) *
Economic, social and cultural status (ESCS)	- 0.15 (0.05) ***
Place of residence	
Capital city	reference
Non-capital city (> 100,000)	- 0.42 (0.13) ***
Non-capital city (> 25,000)	- 0.05 (0.12)
Rural/remote area	0.05 (0.11)
Educational engagement & academic achievement	
Attended preschool	0.03 (0.17)
Repeated a grade level	- 0.07 (0.17)
Numeracy	
Above average	reference
Average	0.01 (0.09)
Below average	0.32 (0.11) ***
Affective engagement	0.17 (0.07) **
Cognitive engagement	0.07 (0.08)
Learning environment characteristics	
Peer attitudes towards school	- 0.04 (0.08)
Own attitudes towards school	- 0.08 (0.03) **
Teacher support in classroom	- 0.05 (0.04)
Student-teacher relationships	- 0.03 (0.04)
Disciplinary climate	- 0.03 (0.04)
Academic aspirations at age 15	
Expect to complete lower secondary	- 0.27 (0.08) ***
Number of observations	2,989

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard error in parentheses.

*Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard error in parentheses.*

Table 5.4. Bivariate (probit) regression coefficients—determinants of treatment by model outcome

Determinants of treatment	Experienced disengagement (age 23/24)
Socio-demographic background	
Gender (1 if female)	0.21 (0.06) ***
Indigenous (1 if yes)	- 0.09 (0.18)
Economic, social and cultural status (ESCS)	0.00 (0.04)
Place of residence	
Capital city	reference
Non-capital city (> 100,000)	- 0.05 (0.08)
Non-capital city (> 25,000)	0.03 (0.09)
Rural/remote area	0.15 (0.08) *
Educational engagement & academic achievement	
Attended preschool	- 0.08 (0.13)
Repeated a grade level	- 0.09 (0.13)
Numeracy	
Above average	reference
Average	- 0.01 (0.06)
Below average	0.09 (0.09)
Affective engagement	- 0.07 (0.06)
Cognitive engagement	- 0.04 (0.06)
Learning environment characteristics	
Peer attitudes towards school	- 0.03 (0.06)
Own attitudes towards school	- 0.04 (0.03)
Teacher support in classroom	- 0.05 (0.03
Student-teacher relationships	0.00 (0.03)
Disciplinary climate	- 0.02 (0.03)
Academic aspirations at age 15	
Expect to complete lower secondary	- 0.09 (0.06)
Number of observations	2,989

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Standard error in parentheses.

Variables included in the estimation of young people's propensity to experience disengagement (age 15-17) pertain to students' socio-demographic background, educational engagement and academic performance, learning environment characteristics and academic expectations. Specification of the treatment model is summarised with descriptive statistics (t-tests of differences in means and prevalences) in Table 5.5.

Table 5.5. Descriptive statistics (means and prevalences): determinants of treatment by treatment status

Disengagement status (age 15-17) Determinants of treatment	Experienced disengagement	Did not experience disengagement
Socio-demographic background		
Gender (1 if female)	0.45	0.51
Indigenous (1 if yes)	0.06 **	0.03
ESCS	0.24 ***	0.46
Place of residence		
Capital city	0.61	0.55
Non-capital city (> 100,000)	0.08 ***	0.18
Non-capital city (> 25,000)	0.13	0.13
Rural/remote area	0.18	0.14
Educational engagement & academic achievement		
Attended preschool	0.95	0.94
Repeated a grade level	0.05	0.06
Numeracy		
Above average	0.49	0.55
Average	0.32	0.35
Below average	0.19 ***	0.11
Affective engagement	2.04 ***	1.94
Cognitive engagement	1.57	1.54
Learning environment characteristics		
Peer attitudes towards school	2.38	2.40
Own attitudes towards school	0.25 **	0.44
Teacher support in classroom	0.26	0.35
Student-teacher relationships	0.35	0.40
Disciplinary climate	0.06	0.13
Academic aspirations at age 15		
Expect to complete lower secondary	0.56 ***	0.69
Weight		
Sampling & wave 1 attrition weight	0.93	0.98
Number of observations		2,989

*Note: *** p < 0.01, ** p < 0.05, * p < 0.10 on two-sided t-tests of difference in means and prevalences (treatment = 1,0)*

The appropriateness of the treatment model specification is summarised in Figure 5.6. Lines represent correspondence between specified covariates and the drivers of disengagement identified by flexible learning practitioners (see Chapter 4, Table 4.3). Illustrated correspondence is indicative and not intended to map all pathways of covariance; indeed, each of these determinants is embedded in a dynamic interplay influencing the likelihood of disengagement first in youth and subsequently in young adulthood.

Figure 5.6. Correspondence between identified drivers of youth disengagement and treatment model covariates

Domain	Issue	Covariate
Educational	**Learning support**	**Teacher support in classroom**
	Engagement	**Numeracy**
	Personal support	**Attended preschool**
	Discipline	**Repeated a grade level**
		Affective engagement
Interpersonal	**Peer connections**	**Cognitive engagement**
	Belonging	**Peer attitudes towards school**
	Carer responsibilities	**Own attitudes towards school**
		Student-teacher relationships
Health & wellbeing	**Home Environment**	**Disciplinary climate**
	Physical health	**Gender**
	Mental & emotional health	**ESCS**
	Empowerment	**Place of residence**
	Substance misuse	**Indigenous status**
	Youth justice involvement	
Socioeconomic & demographic	**Poverty**	***Expect to complete**
	Indigeneity	***Sampling & attrition weight**
	Refugee status	

The treatment model specifies seven variables pertaining to educational engagement and academic achievement. The dummy variables 'attended preschool' and 'repeated a grade' indicate respondents' behavioural engagement via access to (early) educational opportunity and persistence in schooling, respectively. 'Self-assessed relative ability in numeracy' is included as a measure of students' academic positionality vis-à-vis peers. For this variable, LSAY's original five-point Likert-type scale is consolidated into three broad categories: above average, average and below average academic performance. As a self-reported measure, this variable does not necessarily correspond with standardised academic performance (e.g., student test scores) and should be interpreted as a broader measure of a student's self-concept within the schooling environment. PISA's index of teacher support is used to indicate student perceptions of classroom-level individualised learning support provided by teachers in mathematics. Using a four-point scale—(0) 'every lesson,' (1) 'most lessons,' (2) 'some lessons,' and (3) 'never or hardly ever'—students were asked to rate the following five statements: (a) 'the teacher shows an interest in every student's learning,' (b) 'the teacher gives extra help when students need it,' (c) 'the teacher helps students with their learning,' (d) 'the teacher continues teaching until the students understand,' and (e) 'the teacher gives students an opportunity to express opinions.' Positive scale values correspond

to higher perceived levels of classroom-level individualised learning support. Additional learning support measures excluded from the treatment model, including self-assessed relative literacy and self-assessed overall academic ability, were found to add statistical noise and did not improve matching (see *Post-estimation balance diagnostics* below). Three variables pertaining to student engagement (see also Christenson et al., 2012b) are indicated. Two of these variables are derived from a polychoric factor and parallel analysis with varimax rotation of 11 survey items. Using a four-point Likert-type scale ranging from (1) 'strongly agree' to (4) 'strongly disagree,' respondents were asked to rate their agreement with the following statements: 'Your school is a place where:' (a) 'the things you learn are important to you,' (b) 'you feel happy,' (c) 'the work you do is good preparation for your future' (d) 'you like learning,' (e) 'you have gained skills that will be of use to you when you leave school,' (f) 'you get enjoyment from being there,' (g) 'the things you learn will help you in your adult life,' (h) 'you really like to go each day,' (i) 'you find that learning is a lot of fun,' (j) 'the things you are taught are worthwhile,' and (k) 'you feel safe.' Retained factors (b, d, f, h, i, k and a, c, e, g, j) correspond closely with the constructs of psychological (i.e., 'affective') and cognitive engagement, respectively. Higher values of these indices imply lower levels of engagement. Cronbach's alpha (Cronbach, 1951) values of .82 (affective engagement) and .79 (cognitive engagement) indicate high internal consistency of consolidated scale items. Cognitive engagement is further triangulated through use of PISA's index of students' own attitudes toward schooling. Using a four-point Likert-type scale ranging from (1) 'strongly agree' to (4) 'strongly disagree,' students were asked to rank their level of agreement with the following statements: (a) 'school has done little to prepare me for adult life when I leave school,' (b) 'school has been a waste of time,' (c) 'school helped give me confidence to make decisions,' and (d) 'school has taught me things which could be useful in a job.' Negatively worded items are inverted for scaling; positive scale values correspond to positive attitudes toward schooling. Descriptive statistics presented in Table 5.5 indicate that students with lower self-perceived aptitude in mathematics and students with lower affective engagement have statistically significant higher likelihoods of experiencing disengagement before the school leaving age.

The model includes three variables related to the interpersonal sphere within the learning environment. First, a single scale item of peer attitudes toward schooling was derived through confirmatory polychoric factor analysis with varimax rotation of students' responses to four statements using a four-point Likert-type scale ranging from (1) 'strongly agree' to (4) 'strongly disagree': (a) 'students are eager to learn,' (b) 'students make good progress,' (c) 'students work hard,' and (d) 'students are well behaved.' An increase in the value of this

scale item implies a less favourable perception of peer attitudes toward schooling. A Cronbach's alpha value of .76 indicates strong internal consistency of the retained factor. PISA's index of student-teacher relations provides an indication of students' perceptions of the quality of their inter-personal relationships with teachers. Using a four-point Likert-type scale ranging from (1) 'strongly agree' to (4) 'strongly disagree,' students were asked to rank their level of agreement with the following five statements: (a) 'students get along well with most teachers,' (b) 'most teachers are interested in students' well-being,' (c) 'most of my teachers really listen to what I have to say,' (d) 'if I need extra help, I will receive it from my teachers,' and (e) 'most of my teachers treat me fairly.' Higher scale values correspond to more positive perceptions among students of their relationships with teachers. PISA's index of school disciplinary climate in mathematics lessons is used to indicate students' perceptions of their peers' general level of behavioural engagement in school. Using a four-point scale— (0) 'every lesson,' (1) 'most lessons,' (2) 'some lessons,' and (3) 'never or hardly at all,' young people were asked to indicate their level of agreement with the following statements: (a) 'students don't listen to what the teacher says,' (b) 'there is noise and disorder,' (c) 'the teacher has to wait a long time for students to quiet down,' (d) 'students cannot work well,' and (e) 'students don't start working for a long time after the lesson begins.' Positive scores on this scale correspond to positive perceptions of the classroom disciplinary climate. As demonstrated in Table 5.5, students who were to experience disengagement as youth (aged 15-17) apparently tended to rate the learning environment less favourably than their peers on all factors. However, only the difference in students' own attitudes to school is shown to be statistically significant.

The treatment model includes four variables related to students' socio-demographic background: gender, Indigenous status, economic, social and cultural status (ESCS), and remoteness of residence. While gender is not identified by flexible learning practitioners as a driver of disengagement, per se, well-established and historically persistent links between gender, early school leaving and labour force participation motivate its inclusion here. Indigenous Australians are shown to have a statistically significant higher likelihood of experiencing disengagement in youth than their non-Indigenous counterparts. Perhaps most important to the disengagement phenomenon are the personal and environmental circumstances associated with socioeconomic disadvantage, proxied in the treatment model by PISA's ESCS index. ESCS is based on three questions in the survey: highest parental education, highest parental occupation, and number and type of possessions (including books) in the home (proxy variables for household wealth). A higher index value implies higher economic, social and cultural status. Lower mean ESCS was observed among young

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people who experienced disengagement at age 15-17. With regard to remoteness of residence, places of residence are distinguished as capital cities (i.e., Adelaide, Brisbane, Canberra, Darwin, Hobart, Melbourne, Perth and Sydney), large non-capital cities (i.e., more than 100,000 residents), small non-capital cities (i.e., between 25,000 and 100,000 residents) and localities with fewer than 25,000 residents. Respondents in non-capital cities with more than 100,000 residents demonstrate a statistically significant lower likelihood of experiencing disengagement as youth.

As an indication of respondents' academic trajectory, a dummy variable has been included denoting students' own expectations to complete lower secondary school. Students who experienced disengagement before the school leaving age were less likely than their peers to indicate that they expected to complete lower secondary school.

Finally, emerging research has provided novel mathematical rationale for the inclusion of complex survey design and attrition weights in propensity score analysis (Austin et al., 2016). Dugoff et al. (2014) recommend the inclusion of such weights as they are likely to contain prognostically important information (i.e., latent characteristics that impact both treatment selection and the outcome of interest) that might not otherwise be available to the researcher. Ridgeway et al. (2015) demonstrate that inclusion of complex sampling design weights improves matching on the propensity score and, as they may account for systematic selection into treatment, are necessary to the unbiased estimation of treatment effects. However, the weight utilised is ascribed in wave 1 and thus does not account for non-random survey attrition between wave 1 and wave 11. The outcome model has not been weighted to correct for observed non-random survey attrition as there does not yet seem to be a consensus in the literature concerning the proper integration of weights in variance estimation that takes into account that the propensity score is estimated (as derived by Abadie & Imbens, 2016). The outcome models therefore reflect the average treatment effect of the treated within the sample only *(SATT)* and cannot be directly extrapolated to the general population (DuGoff et al., 2014; Ridgeway et al., 2015).

Notably, several of the drivers of student (dis)engagement identified by flexible learning practitioners lack direct correspondents in the LSAY/PISA data. Missing indicators relate to discipline (i.e., removals, detention, suspension and expulsion); youth carer responsibilities (i.e., parenthood and other carer responsibilities, including for adult family members); insecurity in the home environment (i.e., domestic abuse, neglect, mobilities and in state/residential care); physical health (i.e., sleep, diet, hygiene, disability, medical condition, and exposure to violence); mental and emotional health (i.e., trauma, adjustment, anger, anxiety, depression, self-harm, behavioural disability, and attention); empowerment (i.e.,

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self-regard, locus of control, dispositional optimism, resilience, motivation, personal organisation, goal-setting, and satisfaction); substance misuse (i.e., nicotine, alcohol, narcotics, and volatile inhalants); and youth justice involvement (i.e., trouble with police (general), criminal offending, and juvenile incarceration). Collection of these data is generally beyond the remit (and scope) of the LSAY; to the extent that their exclusion from the treatment model may bias estimation of the propensity score, these indicators comprise a potentially significant limitation of the matching estimators approach. However, these missing elements correspond strongly with included covariates, most importantly ESCS. Receipt of learning support for English as an additional language, behavioural engagement, domestic insecurity, physical health, empowerment, substance misuse, youth justice involvement and refugee status are all strongly mediated by the social, economic and cultural capital captured in ESCS. Beyond the sweeping influence of ESCS—and addressed also to the issues of mental and emotional health and empowerment—respondents' expectation to complete lower secondary and ascribed attrition weight provide additional coverage. In each instance, it is reasoned that young people facing significant barriers to engagement will bear diminished expectations to remain in schooling and will be less likely to continue as survey participants. ESCS, expectation to complete lower secondary and respondents' sampling and first stage attrition weight are therefore important mitigating factors of potential model endogeneity.

ANALYSIS

Propensity score estimation

To estimate average treatment effects with propensity score matching, each respondent's likelihood of experiencing disengagement must first be expressed as a linear function of her particular background characteristics and environmental circumstances. To do this, the treatment variable 'experienced disengagement' is regressed on its determinants as described above. Results of the first-stage (probit) regression are presented in Table 5.6.

Table 5.6. Propensity score estimates (first-stage probit regression)

Determinants of treatment	Experienced disengagement (age 15-17)
Socio-demographic background	
Gender (1 if female)	- 0.12 (0.08)
Indigenous (1 if yes)	0.22 (0.20)
Economic, social and cultural status (ESCS)	- 0.14 (0.05) ***
Place of residence	
Capital city	reference
Non-capital city (> 100,000)	- 0.46 (0.14) ***
Non-capital city (> 25,000)	- 0.12 (0.12)
Rural/remote area	0.02 (0.11)
Educational engagement & academic achievement	
Attended preschool	0.06 (0.18)
Repeated a grade level	- 0.20 (0.18)
Numeracy	
Above average	reference
Average	- 0.04 (0.09)
Below average	0.25 (0.12) **
Affective engagement	0.20 (0.09) **
Cognitive engagement	0.09 (0.09)
Learning environment characteristics	
Peer attitudes towards school	- 0.22 (0.10) **
Own attitudes towards school	- 0.04 (0.04)
Teacher support in classroom	- 0.03 (0.05)
Student-teacher relationships	0.04 (0.05)
Disciplinary climate	- 0.01 (0.04)
Academic aspirations at age 15	
Expect to complete lower secondary	- 0.25 (0.08) ***
Number of observations	2,989
Pseudo r-squared	0.0477
Log pseudolikelihood	- 577.77

*Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Standard error in parentheses; regression before imposition of calipers.*

Being of lower relative socioeconomic status, residence in a large urban centre, relatively lower self-assessed aptitude in mathematics, perceived positive attitudes toward schooling among peers, and having an expectation not to complete lower secondary education were associated with a statistically significant increased risk of disengagement. Respondents who reported stronger levels of affective engagement were shown to have a statistically significant reduced likelihood of experiencing disengagement (age 15-17).

Treatment effects

Stage two of the PSM analysis estimates the average impact of having experienced disengagement as a young person (aged 15-17) on the likelihood of experiencing subsequent disengagement aged 23/24. To do this, treated and control observations are matched on the

basis of their propensity scores and their outcomes compared. The average difference between the treated and control groups is the *SATT*. Estimation specifies one-to-one, nearest neighbour matching with replacement (using the *STATA 14* statistical package, *'teffects psmatch'* routine)—shown by Austin (2010) to minimise the mean squared error of the estimated treatment effect—and robust standard error estimation. Following Austin (2011b), calipers (i.e., maximum absolute difference between potential matches) of .2 times the standard deviation of the (pooled) propensity score were imposed. No observations were excluded as a result of the imposition of calipers. *SATT* estimation is summarized in Table 5.7.

Table 5.7. Matching estimates—Likelihood of experiencing disengagement (age 23/24)

Prevalence of disengagement (age 23/24)	Disengaged (age 15-17)	Engaged (age 15-17)	Treatment effect[†]
All respondents	0.19	0.12	
Matched respondents only	0.19	0.09	0.10***
	Se	*95% Conf. Interval*	
	0.04	.0270967	.1806955
Number of observations	154 (treated)	2,835 (control)	

Note: *** *p < 0.01,* ** *p < 0.05,* * *p < 0.10*

†Sample average treatment effect among the treated (SATT); Se is standard error; n-treated is the number of young people in the sample who experienced disengagement at age 15-17; n-control is the number of young people who did not.

Findings provide strong statistical support for the hypothesis that preventing disengagement at age 15-17 reduces 'at-risk' individuals' subsequent likelihood of experiencing disengagement as young adults. To wit, keeping a disadvantaged young person engaged appears to reduce her risk of experiencing disengagement in the future by more than half. Estimation results are illustrated in Figure 5.7.

The analysis illuminates several considerations. First, the phenomenon of adult disengagement in Australia is evidently common, irrespective of youth engagement status. Nearly one in five young people (19%) who experience disengagement as 15-17-year-olds and nearly 12% of Australians who remained engaged as teenagers nonetheless go on to experience disengagement as young adults. That is, more than one in 10 young adults will experience at least nine of 12 months not in education, training or employment at age 23/24, despite having remained engaged at age 15-17. However, among youth who are at high risk of experiencing disengagement, staying engaged (e.g., through flexible learning) is associated with a subsequent risk of adult disengagement of just over 9%—an adjusted level

of risk below that of their counterparts in the general population (see 'matched respondents' in Table 5.7).

That the adjusted risk of disengagement in young adulthood is lower among young people who remained engaged aged 15-17 despite having been most at risk of youth disengagement, suggests there may be a latent protective mechanism at work in this group. That is, highly disadvantaged youth who remain engaged until the school leaving age may carry something of that experience forward into young adulthood. Having already overcome significant obstacles to engagement, fewer of these individuals experience a prolonged period of disengagement as young adults than do their peers in the broader population. Further research is needed to identify any such mechanism and unpack its potential role in the mitigation of adult disengagement risk.

Figure 5.7. Propensity score matching estimation results—Adult outcomes by youth engagement status
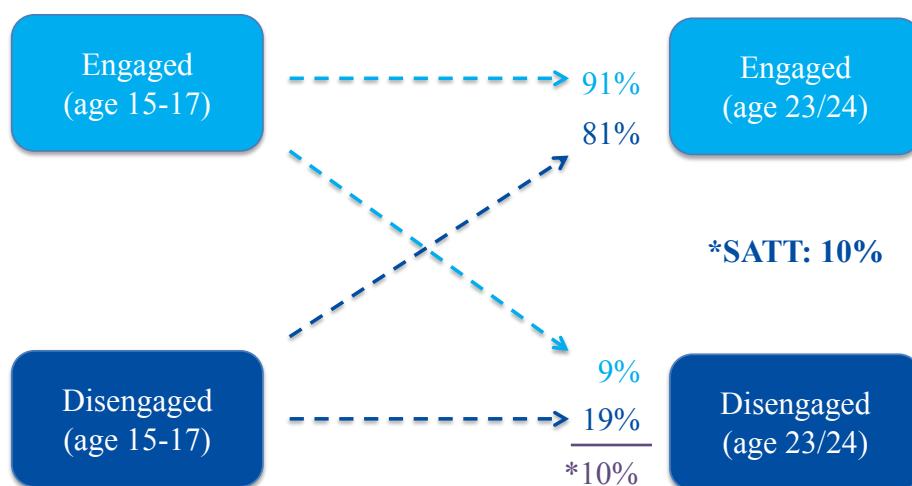
Post-estimation balance diagnostics

Rosenbaum and Rubin (1983) showed that the propensity score is in fact a balancing score. That is, matching on the true propensity score engenders a balanced distribution of covariates between treated and control groups. To validate the estimated *SATT*, it is therefore critical to assess that the propensity score model has been properly specified and that as a result, covariates have been adequately balanced between the matched groups. Several procedures enable qualitative and quantitative assessment of the quality of matching, including appraisal

of common support, covariate distributions in treated and control groups, and variance ratios of matched observations.

Common support. Estimation of treatment effects by matching on the propensity score assumes that all observations have a non-zero probability of assignment to either treatment group (Rosenbaum & Rubin, 1983). In lay terms, there must be sufficient overlap between the propensity scores of observations in the treated and control groups to ensure that matched observations are sufficiently alike with regards to their observed characteristics. A satisfactory level of common support prevents individuals with dissimilar propensity scores (and, by extension, substantively different covariate values) from being matched to one another simply by virtue of their propensity scores being closer in value than the next nearest alternative. Calipers, discussed above, may be used to ensure matched observations are not overly dissimilar. Figure 5.8 provides graphical illustration that matching on the propensity score has apparently been conducted with common support.

Figure 5.8. Density plot: common support before and after matching
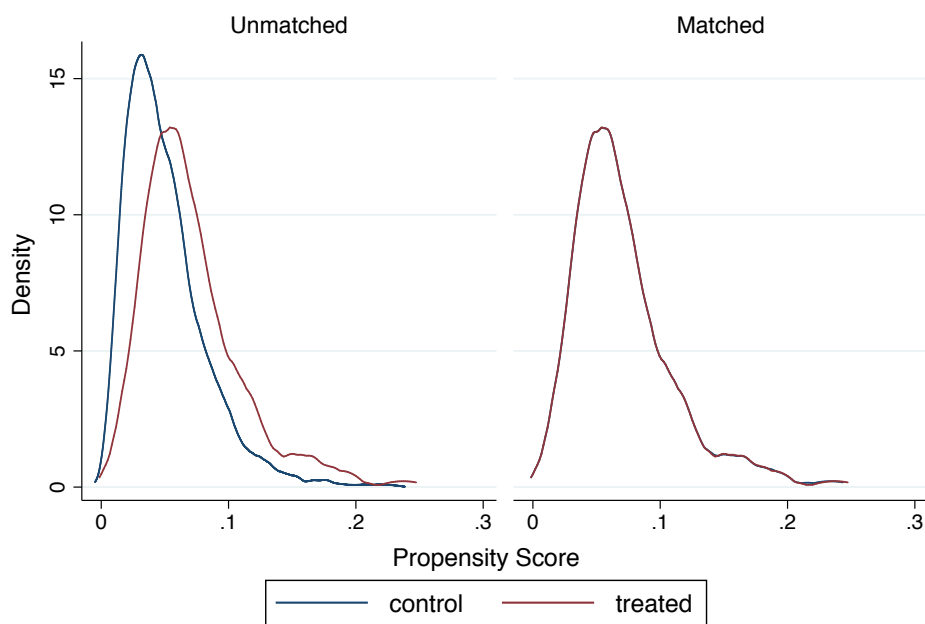
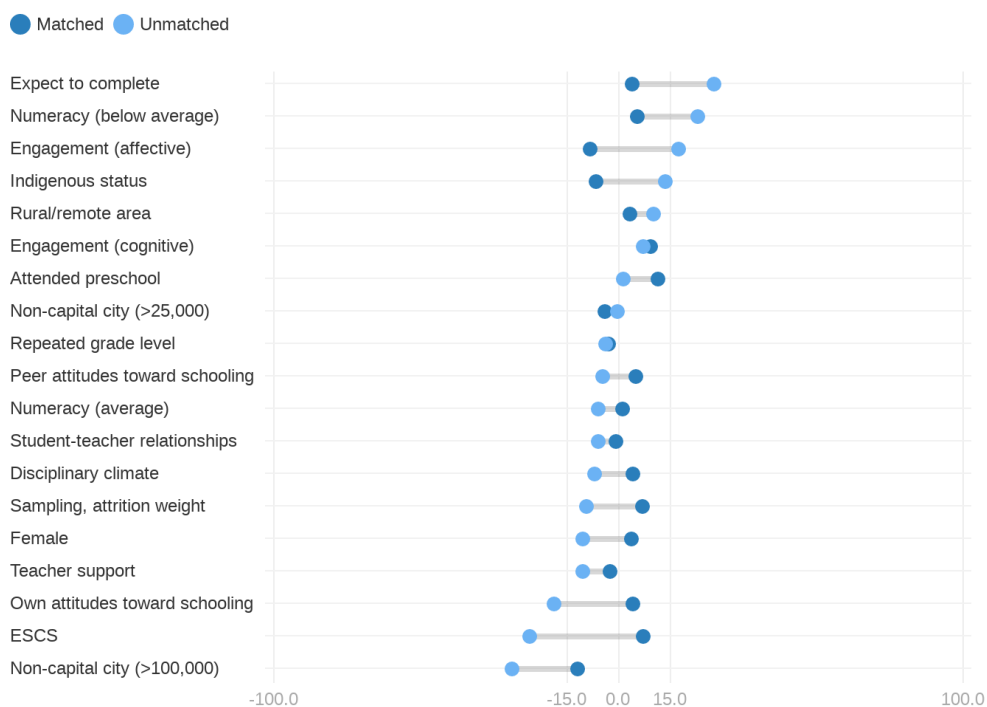*Distributions of covariate means and prevalences in treated and control groups.* Matching on the propensity score should balance the means and prevalences of covariates between treated and control groups. While matching on the true propensity score should eliminate bias (i.e., between-group differences in means and prevalences), Austin (2009) demonstrates that

as with a randomised control trial, balance when matching on the estimated propensity score is a large sample property. Hence some deviation from zero difference in small samples does not necessarily indicate that the propensity score model has been misspecified. To indicate a plausible range of differences in covariate means and prevalences within a correctly specified propensity score model, Austin (2009) is followed to derive the 95% confidence intervals of the empirical sampling distributions of the standardised differences of covariate means and prevalences. For each covariate, a bootstrap sample (random sample with replacement) of size *n-treated* is drawn. For each bootstrap sample, the standardised difference in means (or prevalences) is calculated. This process is repeated 500 times for each covariate to derive its empirical sampling distribution. The 97.5th percentile is estimated as the mean value (or prevalence) plus 1.5 times the standard deviation of the empirical sampling distribution of covariate values.

Figure 5.9 demonstrates that matching on the propensity score has substantially reduced most of the mean and prevalence differences in baseline covariates between the treatment and control groups. The largest standardised difference between matched values ('Non-capital city >100,000,' -11.8%), falls within the narrowest confidence interval ('Numeracy— below average,' ± 0.15). Examination of the empirical sampling distribution of the standardised differences of covariate means and prevalences therefore yields no statistically significant evidence against the null hypothesis of distribution equivalence (i.e., correct model specification).

Figure 5.9. Standardised bias of covariates before and after matching

Note: Reference lines indicate the narrowest 95% confidence interval of the empirical sampling distribution of the standardised differences of binary and continuous covariates. Values of percent standardised bias (after matching) that fall within this range indicate no statistically significant evidence of propensity score model misspecification.

Variance ratios. Matching on the propensity score should also balance the underlying distributions of covariate values between treated and control groups. Distribution balance in propensity-score-matched samples is often assessed via covariate box plots, though such analysis is essentially subjective and vulnerable to changes in the scale of the visualisation. Imai et al. (2008) recommend a comparison of between-group estimated variances (i.e., the so-called 'second statistical moment') to assess balance. Variance ratios (i.e., the variance of treated observations as a proportion of the variance of control observations) of approximately one suggest similar distributions of the underlying baseline covariates. Table 5.8 compares the variance ratios of covariates in the matched and unmatched samples.

Table 5.8. Variance ratios before and after matching

Determinants of treatment	Variance ratio (Vt/Vc)†
Socio-demographic background	
Gender (1 if female)	1.00 (1.00)
Indigenous (1 if yes)	0.83 (1.90)
Economic, social and cultural status (ESCS)	1.07 (1.24)
Place of residence	
Capital city	reference
Non-capital city (> 100,000)	0.70 (0.49)
Non-capital city (> 25,000)	0.92 (1.00)
Rural/remote area	1.06 (1.22)
Educational engagement & academic achievement	
Attended preschool	0.69 (0.95) *
Repeated a grade level	0.90 (0.87)
Numeracy	
Above average	reference
Average	1.01 (0.97)
Below average	1.09 (1.61)
Affective engagement	1.76 (1.60) *
Cognitive engagement	0.98 (0.87)
Learning environment characteristics	
Peer attitudes towards school	0.97 (1.02)
Own attitudes towards school	1.03 (0.83)
Teacher support in classroom	1.04 (0.93)
Student-teacher relationships	1.15 (1.13)
Disciplinary climate	0.89 (1.02)
Academic aspirations at age 15	
Expect to complete lower secondary	1.01 (1.16)
Weight	
Sampling & wave 1 attrition weight	0.94 (0.46)

† The ratio (Vt/Vc) represents the variance of treated observations as a proportion of the variance of control observations for listed covariates. Unmatched variance ratios are in parentheses.

*Denotes the variance ratio of the matched sample falls outside the 95% confidence interval of the F-distribution with n-1 and n-1 degrees of freedom.

As shown in Table 5.8 above, all but two of the variance ratios of the matched sample fall within the 95% confidence interval of the F-distribution with n-1 and n-1 degrees of freedom, which may be used to benchmark the paired variances under the assumption of equality (Rosner, 1995) (the variance ratio of 'attended preschool' is below the cut-off for the 2.5th percentile; the variance ratio of 'affective engagement' exceeds the 97.5th percentile). Results imply that balance has been adequately achieved within a properly specified model.

DISCUSSION

The findings of this chapter demonstrate that for disadvantaged young people with a high likelihood of experiencing disengagement, staying engaged in education, training or employment up through the school leaving age significantly reduces the risk of experiencing

disengagement in young adulthood. Results indicate an average treatment effect *(SATT)* of 10%. That is to say, approximately one-tenth of the long-term engagement observed among adult survey respondents in the matched sample can be viewed as an outcome of having remained engaged as young people. It is of no mathematical consequence to the valuation exercise whether this is interpreted to refer to one in 10 participants, one tenth of the engagement of each individual, or 10% of the amalgamated engagement of the full cohort. This rhetorical proportionality is simply an artefact of the underlying statistical estimation. Irrespective of its literal interpretation (if any such interpretation is appropriate), the *SATT* can be thought of as a conservative baseline—or minimum likely effect—whose economic value can be estimated and upon which additional values can be credibly scaffolded.

Notwithstanding this result, in isolation, the behavioural engagement of highly disadvantaged youth appears to play a relatively minor role in their subsequent engagement status. As illustrated in Figure 5.7, even among young people who experience disengagement before the school leaving age, the vast majority (over 80%, in fact) do not experience prolonged disengagement as young adults. This implies that in the formative period leading up to the school leaving age and during the transition from schooling into further education, training and employment, there are additional important mechanisms at work. Thus while evidently substantive, the behavioural engagement of flexible learning participants should be evaluated in light of the broader personal, relational and structural contexts in which their educational re-engagement unfolds.

Of concern, then, is the unmeasured contribution of FLOs' many other programmatic aspects to participants' subsequent engagement as adults. Among other outcomes, FLOs enhance young people's sense of belonging, mental and emotional wellbeing, personal agency, inter-personal and life skills, literacy, numeracy, and critical thinking. They help young people develop a positive outlook on the future and the personal agency needed to actualise life-affirming, productive goals. They offer educational credentials, including Year 12 (or equivalent) completion and a broad range of vocational certifications. And FLOs provide highly personalised support to facilitate the successful transition of young people into further education, training and employment. Each of these contributions—not to mention their myriad interactions—is likely to contribute to participants' long-term engagement. The econometric substantiation of these additional outcomes, however, lies beyond the remit of the current study.

Further research is needed to ascertain the long-term impact of FLOs' other programmatic aspects, including, inter alia, the fostering of young people's physical, mental and emotional wellbeing, life skills and self-regulation; improvements in literacy, numeracy, problem

solving and critical thinking; formal credentialing; support services, such as accompaniment, legal aid, and liaising with public officials and employers; and transitional guidance, including career planning, assistance with job applications and ongoing follow-up. Effective quantitative research into these areas will require a step change in the collection of primary data within FLOs, including the introduction of long-term tracking of program participants. Given participants' complex circumstances and frequent mobility, collection of such data has thus far proved exceedingly difficult. As tightly knit learning communities, however, FLOs may also have unique opportunities to track participants over time by leveraging the deep personal relationships developed between practitioners, young people, their families and the broader community. Such a system might, for example, utilise FLOs' social networks to ensure the continual updating of participants' contact information. Where participants cannot be reached directly, collection of survey data might be conducted via authorised family members and friends. In addition to providing a clearer picture of the impact of re-engagement, increasing the scope of available data may also enable the analytical stratification of FLOs by programmatic type, pedagogy and other distinguishing aspects. In short, improved data concerning participants' complex background circumstances, educational experiences, labour force destinations and long-term psychosocial outcomes would allow for a clearer picture of what works, for whom.

CONCLUSIONS

In his authoritative review of studies estimating economic returns to education, Card (1999) calls for a novel articulation of the confluence of personal background characteristics, educational attainment and future earnings. "A loftier goal," he states, "[...] is to understand the joint determination of schooling attainment and other endogenous outcomes in the context of a structural model of schooling and earnings determination" (p. 56). The research presented here endeavours to contribute to this end, helping to clarify the interplay between education and personal background characteristics with regard to engagement in adulthood and, by extension, the long-term social and economic outcomes of FLO participants.

Based on the propensity score matching analysis conducted here, Thomas and Nicholas (2018) conclude that under a broad range of economic conditions, FLOs are likely to yield a net positive return on investment. Building on previous social return on investment analyses of the economic returns to educational attainment and engagement—including, among others, Levin et al. (2007), Coles et al. (2010), DAE (2012) and Lamb and Huo (2017) (see Chapter 4)—the authors conclude that for every dollar invested in flexible learning in Australia, society is likely to accrue between $5.9 and $17.6 in return. The authors therefore

expect the current participant cohort of approximately 70,000 disadvantaged young people to generate upwards of \$16.422 billion in public economic benefits over and above the cost of these programs. Purported economic benefits stem from increased collection of income tax and GST, as well as reduced state obligations for welfare transfers, direct criminal justice system expenditures and public health services. That supporting FLOs is fiscally sustainable under even the most stringent economic assumptions, the authors conclude, suggests a strong moral imperative that society continues to do so.

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1 In general, survey attrition does not appear to be independent of the treatment variable. That is, LSAY respondents who experienced disengagement at age 15-17 are more likely to attrite from the survey than those who remained fully engaged through the school leaving age. As data values cannot be considered 'missing at random,' multiple imputation of missing values is deemed inappropriate (Rubin, 1987).

2 The concentration of data collection within a narrow window is an important aspect of longitudinal study design, as survey respondents may be subject to temporal phenomena that bear the potential to bias analysis. For example, macroeconomic conditions can shift considerably over the course of a year, disparately affecting the employment status of respondents at particular intervals.

3 In addition to participation in education, training and the labour force, the LSAY also provide data concerning respondents' engagement with regard to parental and other carer responsibilities, extracurricular activities and volunteerism.

4 The analysis of the present chapter includes data from survey waves 1–10 only. The outcome model under investigation is therefore limited to the engagement status of young adults aged 23/24 (and excludes wave 11 data concerning respondents at age 25/26). This methodological choice is a product of timing; statistical package syntax was developed before the release of wave 11 data and updating participants' monthly engagement status was simply not possible due to time and resource constraints. Wave 11 data are, however, incorporated within the model described in Chapter 6, which did not entail prohibitive preparation of additional syntax. For analytical consistency, the final sample of both chapters is comprised of respondents with full data for all 11 waves.

5 Chung's commentary referenced an interview conducted by News Corp-owned The Daily Telegraph with two 'NEETs' outside of a Centrelink office in Mt. Druitt, NSW. In the original report and accompanying editorial, as well as Chung's follow-up piece, two young women were lambasted as "Young, able and unwilling to work" (Bita & Houghton, 2016). The interview was subsequently revealed to contain a number of inaccuracies, not the least of which that at least one of the young women had in fact been gainfully employed, had recently completed Year 12 and was enrolled in a TAFE course beginning the following year (Meade, 2016).

6. THE IMPORTANCE OF BELONGING

The Impact of Young People's Sense of Belonging at School on their Quality of Life as Young Adults†

INTRODUCTION

FLO practitioners point to young people's enhanced sense of belonging within the learning environment as a requisite of meaningful educational engagement, as well as a worthwhile outcome in and of itself (J. Thomas et al., 2017). Educational re-engagement in FLOs is thus predicated on the creation of an environment within which young people experience affirming inter-personal relationships and a restorative sense of social belonging (Evans et al., 2009; M. Mills & McGregor, 2014; te Riele, 2014). Myconos et al. (2016) stress the ways in which FLOs "ensured each young person 'counted' and was made to feel 'worthwhile'" (p. 347), a poignant divergence from participants' recollections of their experiences of 'mainstream' schools, where many young people feel actively positioned as 'different' within a schooling environment that is neither 'for' nor 'about' them (Lewthwaite et al., 2017, p. 15).

Goodenow (1993b) underscores that one's sense of belonging is paramount in adolescence, as "young people begin to consider seriously who they are and wish to be, with whom they belong, and where they intend to invest their energies and stake their futures" (p. 81). As a young person continues to develop and mature, her sense of place and belonging "tends to stabilize and take on traitlike features" (Sarason et al., 1990 in Goodenow, 1993b, p. 81). In other words, individually reflexive cognitions of belonging experienced in the schooling environment are strongly constitutive of young people's current and future self-concept. Such experiences are therefore likely to bear durable effects upon their adult subjectivities, socio-economic integration and quality of life. Although considerable research has explored the importance of young people's sense of belonging to their learning

engagement and other educational outcomes, less is known about the long-term impacts of students' sense of belonging at school with regard to their quality of life subsequently as young adults.

The importance of belonging—A brief review of the literature

The need to feel a sense of belonging has been identified as a "fundamental human motivation" (Baumeister & Leary, 1995, p. 497) and an essential determinant of the socioeconomic integration and long-term life outcomes of individuals. Synthesising a wide body of extant research, Baumeister and Leary (1995) rooted a modern theorisation of belongingness in empirical evidence, providing an encompassing framework for the application of the sense of belonging to the study of motivation, learning, behaviour, satisfaction and wellbeing (p. 497). Research has demonstrated links between individuals' lack of social belonging and anxiety and depression (Barden et al., 1985); mental illness (Bhatti et al., 1989); and suicide (Trout, 1980), suggesting a powerful causal role for belongingness in the social, cultural and economic organisation of human beings.

Researchers have also investigated the importance of young people's sense of belonging at school, underscoring the formative role of belonging in their educational motivation and achievement (Goodenow, 1993a), engagement (Willms, 2003) and concurrent life satisfaction more broadly (Huebner et al., 2000). Youths' sense of belonging at school has been shown to impact their physical and mental wellbeing, affective and behavioural engagement (see also Christenson et al., 2012b), and school completion. In a longitudinal study of youth health risk behaviours, McNeely and Falci (2004) found that young people who report positive inter-personal relationships with teachers are less likely to initiate cigarette smoking, drug and alcohol misuse, suicidal ideation or attempt, first sexual intercourse and violence with a weapon (p. 290). Bond et al. (2007) investigated the links between students' sense of social and school connectedness and subsequent substance misuse, mental health and school completion. This short-term longitudinal study revealed correlations between a positive sense of belonging and better life outcomes. Elmore and Huebner (2010) employed hierarchical multiple linear regression analysis to demonstrate the independent role of sense of belonging at school on students' affective and behavioural engagement in learning.

Beyond the socio-demographic and behavioural correlates of young people's sense of belonging at school, several researchers have utilised structural equation modelling (SEM) to investigate the mechanisms by which various academic experiences and other life outcomes are mediated by students' sense of belonging. Flaspohler et al. (2009) highlighted

the mediating role of peer and teacher support on the impact of bullying, underscoring the importance of positive relationships in the school setting to the promotion of young people's self-reported quality of life. Similarly, Danielsen et al. (2009) demonstrated the mediational impact of school-related social support on students' satisfaction with school and academic achievement. Utilising SEM to examine the effects of multiple school characteristics on educational engagement, Kotok et al. (2016) showed that a stronger sense of school belonging reduced the likelihood of early school withdrawal, independent of individuals' background characteristics.

In a rare example, Walton and Cohen (2011) explored the importance of young people's sense of belonging at school through a randomised controlled trial among first-year African-American university students. The authors demonstrated that a brief psychosocial intervention to enhance traditionally marginalised students' sense of belonging dramatically improved their academic and health outcomes while at university.

Limitations of the existing literature

Notwithstanding this broad body of evidence underscoring the importance of students' sense of attachment to school to their academic success, wellbeing and overall quality of life, some limitations are apparent. First, the bulk of studies feature either cross-sectional or short-term (i.e., less than five years) longitudinal analyses. As a result, extant research has generally focused on the immediate—rather than long-term—impacts of young people's sense of belonging at school. Furthermore, though researchers' use of SEM has added significant depth of understanding not possible with traditional forms of linear regression analysis, neither analytical framework is useful in the exposition of causality. As these methods elucidate correlations, but not direct cause-and-effect relationships, they may have limited ability to clarify the extent to which young people's weak attachment to school may lead to educational disengagement, early school leaving and other outcomes. While randomised controlled trials are the preferred research standard in the determination of causal relationships, they are often not practical or ethically feasible in the context of young people at-risk of educational disengagement. As a result, empirical analyses of young people's sense of belonging at school tend to be limited to observational studies.

The positive impact of the flexible learning intervention on young people's sense of belonging has been substantiated at length through qualitative means throughout the research literature (for an overview, see te Riele, 2014) and elsewhere in the ARC Linkage collaboration of which this research is a part (McGinty, Wilson, et al., 2018). See, for example, Myconos (2018), on FLOs' "unconditionally inclusive ethos and corresponding

approach to governance" (p. 29); Wallace (2018), on FLOs' culturally responsive and inclusive pedagogy for Indigenous young people; McGinty, Bursey, et al. (2018), who report youth perspectives on belonging and social wellbeing in FLOs; and Wilson (2018), on evidence of the formation of positive attachments and relationships in FLOs.

Methodological innovation

This study extends previous research concerning students' sense of belonging at school by investigating the causal effect of belonging (or lack thereof) on respondents' subsequent happiness with their professional horizons, social life and economic status, as well as their likelihood of experiencing psychological distress. To do this, propensity score matching analysis is utilised to estimate the impact of improving marginalised students' sense of belonging at school on their adult quality-of-life outcomes, controlling for other factors shown to jointly determine individuals' weak sense of belonging at school and their future life satisfaction and mental and emotional wellbeing. Spanning ten years, the time frame of the longitudinal data employed substantively exceeds that of other thematically similar studies.

While this study aims to complement research regarding the benefits of inclusive educational practices common to FLOs, the young people who comprise its sample were originally drawn from a nationally representative sample of Australian students. Their life trajectories are therefore likely to differ systematically from those of students who attend FLOs. Nonetheless, findings suggest that engendering a strong sense of belonging while at school—a fundamental component of FLOs' pedagogy and praxis—bears significant, long-term psychosocial benefits for socially marginalised young people.

METHODS & DATA

Propensity Score Matching

As outlined in Chapter 5, PSM analysis consists of two stages. Here, the first stage serves to identify the determinants of weak sense of belonging at school at age 15/16. Students' sense of belonging is then regressed on the identified determinants to estimate the likelihood (i.e., the 'propensity') that a respondent will experience a weak sense of belonging at school at age 15/16; this likelihood comprises each respondent's propensity score.

Students' self-reported sense of belonging is used to classify respondents into two principal groups: those who experienced weak sense of belonging at school at age 15/16 (i.e., the 'treatment' group) and a group of respondents who did not (i.e., the 'control' group). Assuming full model specification, matching treated and control observations on the basis of

their propensity scores ensures that variables that jointly determine weak sense of belonging at age 15/16 and quality of life at age 23/24, 25/26 will not bias estimation of this relationship. The absolute value of the estimated treatment effect is the impact on marginalised students' subsequent quality of life had they experienced strong, rather than weak, sense of belonging at age 15/16.

Longitudinal Surveys of Australian Youth

As in Chapter 5, the current research aim requires a longitudinal record of young people as they transition from secondary schooling into young adulthood. The LSAY provide data reflecting respondents' schooling experiences at the age of 15/16, as well as their subjective wellbeing ten years later. The first interview indicates respondents' sense of belonging at school and is rich on information that may explain feelings of marginalisation from the learning environment. Subsequent interviews provide indications of respondents' life satisfaction and wellbeing as adults. As described in Chapter 5, the research sample of the present study is comprised of the 2,989 respondents who answered all questions relevant to both of the dissertation's applied cases.

Defining treatment

The use of PSM analysis to compare survey respondents' adult quality-of-life outcomes requires division of the sample into 'treated' and 'control' groups (i.e., those who experienced a weak sense of belonging at school at age 15/16 and those who did not, respectively). The reader may interchange 'those who experienced weak sense of belonging at school' for 'treated' and 'those who experienced moderate-to-strong sense of belonging at school for 'control.' The 'treatment effect,' then, can be interpreted as the remedial impact of enhancing a socially marginalised young person's sense of belonging at school, expressed in terms of their self-reported quality of life as adults.

The treatment variable is derived from the PISA index of sense of belonging at school, which is computed through a confirmatory factor analysis of six self-response questions. Using a four-point, Likert-type scale ranging from (0) 'strongly agree' to (3) 'strongly disagree,' students were asked to indicate their level of agreement with the following statements: 'School is a place where:' (a) 'I feel like an outsider,' (b) 'I make friends easily,' (c) 'I feel like I belong,' (d) 'I feel awkward and out of place,' (e) 'other students seem to like me,' and (f) 'I feel lonely' (items b and c are inverted for scaling). Students who report identical answers to the six questions have the same index of sense of belonging score.

PISA's index of sense of belonging at school is a continuous variable. To operationalise this index as a binary treatment variable as required by the matching estimators technique, respondents who experienced a weak sense of belonging at school must be delineated. Deciles of students' sense of belonging at school are presented in Table 6.1. Deciles are compiled from the lowest to highest index of sense of belonging scores, with identical values at decile boundaries allocated to the lower corresponding decile. As shown in Table 6.1, deciles three and five do not have any observations, indicating a large number of observations with identical index scores have been allocated to the second and fourth deciles, respectively.[1]

Table 6.1. Sample distribution of sense of belonging at school (age 15/16)

Sense of belonging at school	Frequency†	Percent†
1st decile (bottom)	278	9.30
2nd decile	910	30.44
3rd decile	**0**	**0.00**
4th decile	328	10.97
5th decile	**0**	**0.00**
6th decile	325	10.87
7th decile	504	16.86
8th decile	223	7.46
9th decile	187	6.26
10th decile (top)	234	7.83
Total	2,989	100.0

† Frequency and percent prevalence reflect attrition through wave 11 (2013).

As the cut-off point for distinguishing between weak and strong sense of belonging at school is somewhat arbitrary, two (i.e., stringent and less stringent) specifications of weak sense of belonging are employed to check the sensitivity of findings to the treatment definition. The stringent definition of 'very weak' sense of belonging encompasses respondents whose index of sense of belonging at school at age 15/16 is in the first (i.e., bottom) decile of the range (henceforth, 'very weak' sense of belonging); the less stringent definition of 'weak' sense of belonging encompasses respondents whose index of sense of belonging is in the second through fifth decile of the range (henceforth, 'weak' sense of belonging).[2] For the purpose of comparison with student engagement literature using PISA, this delineation of 'weak' sense of belonging yields a larger (wave 1) prevalence rate than Willms' "low sense of belonging" (41% vs. 25%, respectively) (2003, p. 19). However, the more stringent definition of 'very weak' sense of belonging produces a (wave 1) prevalence considerably smaller than Willms' alternative specification (10% vs. 16.4%, respectively).[3] The study's control group consists

of respondents whose index of sense of belonging is in the sixth or higher decile of the range (from here on, 'moderate-to-strong' sense of belonging). Thus respondents with 'very weak' and 'weak' sense of belonging are compared against a common control group of respondents who experienced a 'moderate-to-strong' sense of belonging at school. Since the same control group is applied throughout, the treatment for the group experiencing 'very weak' sense of belonging may be considered stronger than that of those experiencing 'weak' sense of belonging (see Figure 6.1). This research design allows one to explore whether observed effects on respondents' adult quality of life increase with the strength of the treatment (i.e., to test the robustness of the treatment definition).

Figure 6.1. Schematic overview of hypothesised treatment effects
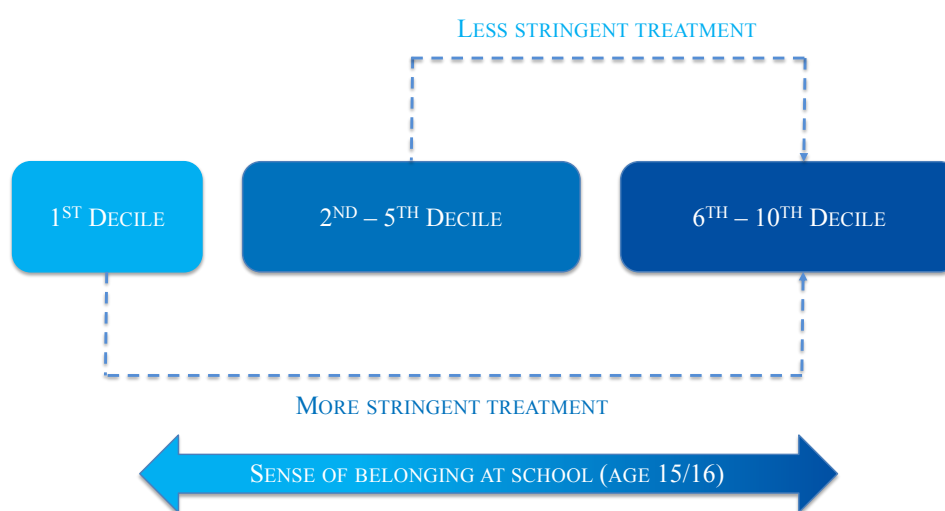
Specification of the outcome models

Two measures are used to gauge the impact of (very) weak sense of belonging at school on respondents' quality of life as adults. The first measure pertains to respondents' life satisfaction in three distinct domains: (a) professional horizons, (b) social life and (c) economic status. Using a four-point Likert-type scale ranging from (1) 'very happy' to (4) 'very unhappy,' respondents were asked to evaluate their level of happiness about (1) '[their] future,' (2) 'the work [they] do at study, at home or in a job,' (3) 'how [they] get on with people in general,' (4) 'the money [they] get each week,' (5) '[their] social life,' (6) '[their] career prospects', (7) '[their] standard of living', and (8) 'where [they] live.' A polychoric factor and parallel analysis (Hayton et al., 2004) with varimax rotation of the eight items yielded three distinct factors. Higher factor scores indicate lower overall satisfaction (i.e., greater levels of 'dissatisfaction') with each scale item. Cronbach's alpha scores indicated

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satisfactory internal consistency of retained factors (professional horizons: .77; social life: .67; economic status: .64).[4] To test the robustness of treatment effects, life satisfaction is monitored at age 23/24 (wave nine) and at age 25/26 (wave 11).

In addition to these life satisfaction measures, we gauge respondents' self-reported sense of mental and emotional wellbeing using an abridged version of the ten-item Kessler psychological distress scale (Kessler et al., 2002). We use six items of the original scale to assess latent anxiety and depression at age 25/26.[5] Using a five-point Likert-type scale ranging from (1) 'all of the time' to (5) 'none of the time,' respondents indicated how often in the past four weeks they felt: (a) 'nervous,' (b) 'hopeless,' (c) 'restless or fidgety,' (d) 'that everything was an effort,' (e) 'so sad that nothing would cheer them up,' and (f) 'worthless.' We applied a confirmatory polychoric factor analysis with varimax rotation to produce our second outcome variable (mental and emotional wellbeing); higher scores on this scale variable indicate decreased probability of anxiety and depression. A Cronbach's alpha value of the retained factor of .84 indicates a very high level of internal consistency of the purported construct.

Table 6.2 presents descriptive statistics of the two quality-of-life measures by deciles of index of sense of belonging at school. It is observed that young Australians reporting 'moderate-to-high' sense of belonging at school at age 15/16 report statistically significant higher levels of satisfaction in all three life satisfaction domains at age 23/24 and at age 25/26 than young Australians who report 'very weak' sense of belonging at school. Although not tested, it is also observed that young Australians experiencing 'very weak' sense of belonging at age 15/16 generally reported lower life satisfaction at age 23/24 and 25/26 than those who reported 'weak' sense of belonging.

Table 6.2. Mean values of the outcome variables 'life satisfaction' and 'mental and emotional wellbeing' by treatment status

Sense of belonging at school / Outcomes	(1) very weak (1st decile)	(2) weak (2nd - 5th decile)	(3) moderate-to-high (6th - 10th decile)
One sided t-tests	(1) vs. (3)	(2) vs. (3)	
Number of observations	1,751	2,711	
Life satisfaction (age 23/24)			
Professional horizons	1.52 ***	1.40 ***	1.35
Social life	1.12 ***	1.04 ***	0.91
Economic status	1.11 ***	1.12 ***	1.05
Life satisfaction (age 25/26)			
Professional horizons	1.58 ***	1.48 ***	1.42
Social life	1.18 ***	1.08 ***	0.97
Economic status	1.20 ***	1.17 ***	1.08
Mental & emotional wellbeing (age 25/26)			
Kessler psychological distress	4.70 ***	4.96 ***	5.06

*Note: *** p < 0.01, ** p < 0.05, * p < 0.10 on one-sided t-tests, as hypotheses are formulated in one direction.*

The same pattern is apparent for psychological distress. Young Australians who experienced 'moderate-to-high' sense of belonging at school at age 15/16 report a statistically significant lower likelihood of anxiety and depression at age 25/26 than young Australians who experienced 'very weak' or 'weak' sense of belonging at age 15/16. Though not tested here, the impact of students' sense of belonging at school on their subsequent mental and emotional wellbeing also appears to increase with strength of treatment.

Determinants of treatment

Bynner (2001) provides a concise synthesis of policy-relevant research on 'vulnerability' and 'resilience' to social exclusion in childhood. Modern theorisation describes a dynamic process in which exposure to risk factors in childhood, mediated by personal attributes and environmental circumstances, creates path dependencies through which early social exclusion leads to disaffection with schooling and, by extension, ongoing social and economic marginalisation in adulthood. Among key drivers of social exclusion risk, Bynner cites low ESCS, lack of family and teacher support with regard to schooling, low educational outcomes associated with capabilities "essential to functioning in adult life" (in particular, literacy and numeracy), personal agency and self-regulation (i.e., 'empowerment'), mental and emotional illness, educational disengagement, and personal insecurity (e.g., exposure to substance misuse and criminal offending, especially at home) (pp. 290-293). Flexible learning practitioners interviewed for this study concur and, citing the pervasive social

alienation experienced by their cohort in mainstream schools, add to these determinants the particular forms of social exclusion experienced by Indigenous Australians.

The OECD, which has used consistent single and scale items to facilitate comparison of national cohorts across multiple iterations of PISA, provides data on a number of (joint) correlates of students' sense of belonging at school and their quality of life outcomes. These correlates, pertaining to socio-demographic background, educational engagement, academic performance and learning environment attributes, inform the specification of treatment determinants for the estimation of students' propensities to experience 'very weak' and 'weak' sense of belonging at school (age 15/16). Indicative bivariate associations—between covariates and treatment status, and between covariates and select model outcomes—are presented in Table 6.3 and Table 6.4, respectively. Following Austin et al. (2007) and consistent with the approach taken in Chapter 5, all theoretically supported determinants of young people's sense of belonging at school and subsequent quality of life are retained in the treatment model.

Table 6.3. Bivariate (probit) regression coefficients—determinants of treatment by treatment status

Determinants / Sense of belonging at school	'very weak'	'weak'
Socio-demographic background		
Gender (1 if female)	- 0.22 (0.07) ***	- 0.13 (0.05) ***
Indigenous (1 if yes)	0.30 (0.20)	0.21 (0.14)
English at home (1 if yes)	- 0.01 (0.14)	- 0.05 (0.09)
Economic, social and cultural status	- 0.14 (0.05) ***	- 0.11 (0.03) ***
Place of residence		
Capital city	reference	reference
Non-capital city (>100,000)	0.31 (0.10) ***	0.15 (0.07) **
Non-capital city (> 25,000)	0.04 (0.11)	0.06 (0.07)
Rural/remote area	0.22 (0.11) **	0.20 (0.07) ***
Educational engagement & academic achievement		
Numeracy		
Above average	reference	reference
Average	0.06 (0.08)	0.07 (0.05)
Below average	0.45 (0.11) ***	0.07 (0.08)
Scholastics in general		
Above average	reference	reference
Average	0.33 (0.08) ***	0.22 (0.05) ***
Below average	0.67 (0.25) ***	- 0.28 (0.25)
Affective engagement	1.17 (0.09) ***	0.65 (0.05) ***
Cognitive engagement	0.35 (0.08) ***	0.18 (0.05) ***
Learning environment characteristics		
Peer attitudes toward school	0.74 (0.08) ***	0.32 (0.05) ***
Own attitudes towards schooling	- 0.48 (0.04) ***	- 0.38 (0.03) ***
Teacher support in classroom	- 0.22 (0.04) ***	- 0.14 (0.03) ***
Student-teacher relationships	- 0.39 (0.04) ***	- 0.37 (0.03) ***
Disciplinary climate	- 0.24 (0.04) ***	- 0.13 (0.02) ***
Academic aspirations at age 15		
Expect to complete lower secondary	- 0.07 (0.08)	- 0.06 (0.05)
Number of observations	1,751	2,711

*Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard error in parentheses.*

Table 6.4. Bivariate regression coefficients—determinants of treatment by (select) model outcomes

Determinants of treatment	Quality of life (age 25/26) Life-satisfaction— economic status	Mental-emotional wellbeing
Socio-demographic background		
Gender (1 if female)	0.02 (0.02)	- 0.12 (0.02) ***
Indigenous (1 if yes)	0.06 (0.05)	- 0.20 (0.07) ***
English at home (1 if yes)	- 0.12 (0.03) ***	0.05 (0.05)
Economic, social and cultural status	- 0.02 (0.01)	0.02 (0.02)
Place of residence		
Capital city	reference	reference
Non-capital city (>100,000)	- 0.06 (0.02) **	0.03 (0.03)
Non-capital city (> 25,000)	- 0.03 (0.03)	0.03 (0.04)
Rural/remote area	- 0.04 (0.03)	0.04 (0.04)
Educational engagement & academic achievement		
Numeracy		
Above average	reference	reference
Average	0.00 (0.02)	- 0.02 (0.03)
Below average	0.00 (0.03)	- 0.10 (0.04) **
Scholastics in general		
Above average	reference	reference
Average	0.02 (0.02)	- 0.04 (0.03)
Below average	0.07 (0.08)	- 0.13 (0.11)
Affective engagement	0.06 (0.02) ***	- 0.07 (0.02) ***
Cognitive engagement	0.06 (0.02) ***	- 0.12 (0.03) ***
Learning environment characteristics		
Peer attitudes toward schooling	0.03 (0.02)	- 0.09 (0.03) ***
Own attitudes towards schooling	- 0.04 (0.01) ***	0.06 (0.01) ***
Teacher support in classroom	- 0.04 (0.01) ***	0.05 (0.01) ***
Student-teacher relationships	- 0.04 (0.01) ***	0.07 (0.01) ***
Disciplinary climate	- 0.01 (0.01)	0.04 (0.01) ***
Academic aspirations at age 15		
Expect to complete lower secondary	- 0.02 (0.02)	- 0.00 (0.03)
Number of observations	2,989	2,989

*Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Standard error in parentheses.*

When considering the prognostic importance of these covariates with respect to their influence on the outcome models, it is important to note that the survey response items may contain more information than meets the eye. Many of the factors included as determinants in the treatment model represent self-reported, latent psychological constructs, rather than externally validated, 'objective' indications of personal background or the learning environment. Van Dijk (2015) notes that all discursive representations of social interactions, situations and structures are cognitively mediated. Likert-type, subjective scale items comprise such 'discursive representations' both in the social meanings embedded in the particular wording of items, as well as in respondents' individualised interpretations of those meanings. A young person's self-reported relative aptitude in numeracy, then, may say less

about her class-rank in mathematics or performance on standardised tests and more about her perceived sense of 'place' in mathematics classes or within the schooling environment more broadly.

Specification of the treatment model is summarised with descriptive statistics (t-tests of differences in means and prevalences) in Table 6.5.

Table 6.5. Descriptive statistics (means and prevalences): determinants of treatment by treatment status

Sense of belonging at school	(1) very weak (1st decile)	(2) weak (2nd - 5th decile)	(3) moderate-to-high (6th - 10th decile)
Determinants			
Two-sided t-tests	(1) vs. (3)	(2) vs. (3)	
Number of observations	1,751	2,711	
Socio-demographic background			
Gender (1 if female)	0.44 ***	0.48 ***	0.53
Indigenous (1 if yes)	0.04	0.04	0.03
English at home (1 if yes)	0.92	0.92	0.93
ESCS	0.34 ***	0.39 ***	0.51
Place of residence			
Capital city	0.49 ***	0.53 ***	0.58
Non-capital city (> 100,000)	0.23 ***	0.18	0.16
Non-capital city (> 25,000)	0.12	0.13	0.13
Rural/remote area	0.16	0.16 **	0.13
Academic achievement & Educational engagement			
Numeracy			
Above average	0.49 **	0.54	0.56
Average	0.32	0.36	0.34
Below average	0.19 ***	0.11	0.10
Overall scholastic performance			
Above average	0.54 ***	0.61 ***	0.69
Average	0.43 ***	0.38 ***	0.30
Below average	0.03 **	0.01	0.01
Affective engagement	2.34 ***	2.02 ***	1.80
Cognitive engagement	1.65 ***	1.56 ***	1.50
Learning environment characteristics			
Peer attitudes towards school	2.64 ***	2.43 ***	2.32
Own attitudes towards school	- 0.21 ***	0.16 ***	0.78
Teacher support in classroom	0.08 ***	0.27 ***	0.47
Student-teacher relationships	0.02 ***	0.21 ***	0.63
Disciplinary climate	- 0.18 ***	0.05 ***	0.26
Academic aspirations			
Expect to complete lower secondary	0.70	0.70	0.67
Weight			
Sampling & wave 1 attrition weight	0.91 *	0.98	0.99

*Note: *** p < 0.01, ** p < 0.05, * p < 0.10 on two-sided t-tests of difference in means.*

The appropriateness of the treatment model specification is summarised in Figure 6.2. Lines represent correspondence between specified covariates and the drivers of disengagement identified by Bynner (2001) and flexible learning practitioners.

Figure 6.2. Correspondence between identified determinants of weak sense of belonging and treatment model covariates
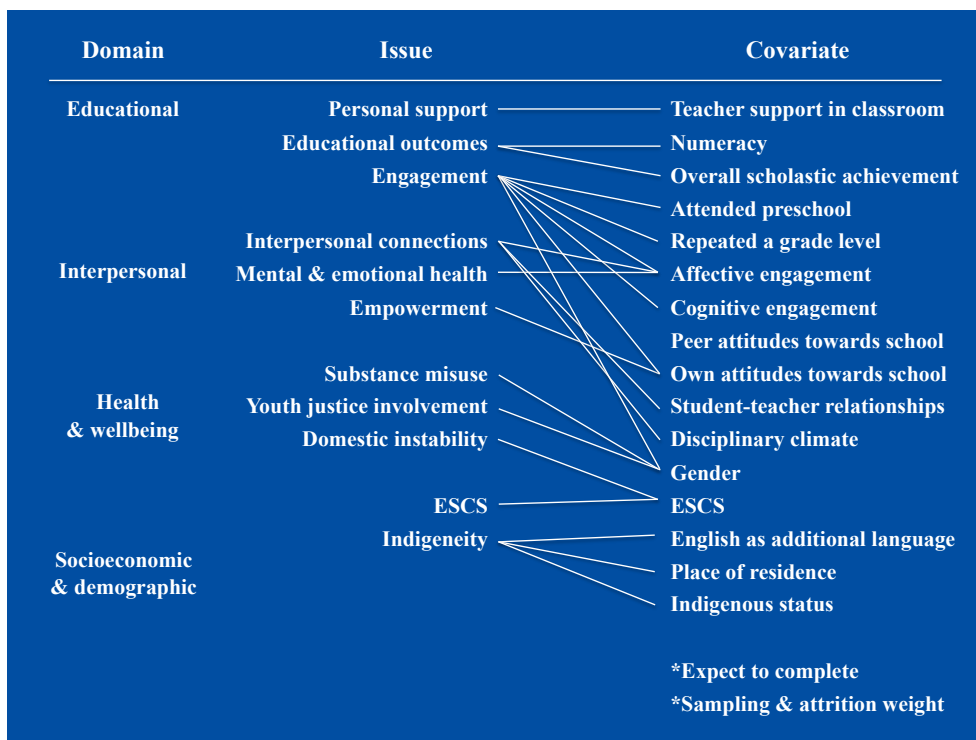
As demonstrated in Chapter 5 (see also Figure 5.6), treatment model covariates demonstrate a high degree of cross-over, with individual drivers frequently corresponding to multiple covariates simultaneously. In the current treatment model, respondents' expectation to complete lower secondary and sampling and first stage attrition weight provide additional coverage on the basis that individuals set on life trajectories characterised by high levels of social marginalisation are less likely to remain in schooling and participate in subsequent waves of the survey.

Coefficients presented in Table 6.5 indicate that female respondents are less and Indigenous Australians slightly more likely to have experienced a 'very weak' sense of belonging at school. No statistically significant differences are observed concerning English as the primary language spoken at home by treatment status. Environmental characteristics include ESCS and place of residence.[6] It is observed that sense of belonging at school at age 15/16 tends to be higher in capital cities and lower in large non-capital cities and in localities with less than 25,000 residents.

Two variables concerning sense of relative academic aptitude are included: self-assessed numeracy and overall scholastic ability. As described in Chapter 5, LSAY's original five-

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point Likert-type scales are consolidated into three broad categories: above average, average and below average academic performance. The two previously derived variables pertaining to students' affective and cognitive engagement are included. Descriptive statistics in Table 5 indicate that respondents who report lower academic achievement and/or lower educational engagement are also more likely to report (very) weak sense of belonging at school.

The model includes the five previously identified learning environment variables: peer attitudes toward schooling, own attitudes toward schooling, teacher support in the classroom, student-teacher relationships and disciplinary climate. The descriptive analysis in Table 6.5 demonstrates that respondents who experienced 'very weak' or 'weak' sense of belonging at school rate the learning environment less favourably than respondents who experience 'moderate-to-strong' sense of belonging. This picture emerges across all five elements of the learning environment: peer and own attitudes towards school, teacher support, student-teacher relationships and disciplinary climate.

The dummy variable denoting students' own expectation to complete lower secondary school is included. Descriptive analysis did not reveal statistically significant differences concerning students' expectations to complete lower secondary education by level of sense of belonging at school.

As described in Chapter 5, the treatment model specifications include LSAY's final sampling and first stage attrition weight as a covariate in the estimation of the propensity score. As previously, the outcome models are not weighted to adjust for observed non-random survey attrition.

ANALYSIS

Propensity score estimation

Stage one of the PSM analysis indicates the key determinants of weak sense of belonging at school at age 15/16. Results of the probit regressions are presented in Table 6.6.[7]

Table 6.6. Propensity score estimates (first-stage probit regression)

Sense of belonging at school	'very weak'	'weak'
Determinants		
Socio-demographic background		
Gender (1 if female)	- 0.20 (0.08) **	- 0.04 (0.05)
Indigenous (1 if yes)	0.21 (0.25)	0.14 (0.15)
English at home (1 if yes)	- 0.11 (0.16)	- 0.08 (0.10)
Economic, social and cultural status	- 0.00 (0.06)	- 0.00 (0.03)
Place of residence		
Capital city	reference	reference
Non-capital city (>100,000)	0.19 (0.11) **	0.12 (0.07)
Non-capital city (> 25,000)	0.02 (0.14)	0.05 (0.08)
Rural/remote area	0.19 (0.12)	0.16 (0.08) **
Educational engagement & academic achievement		
Numeracy		
Above average	reference	reference
Average	- 0.14 (0.10)	- 0.09 (0.06)
Below average	- 0.03 (0.14)	- 0.20 (0.09) **
Scholastics in general		
Above average	reference	reference
Average	0.07 (0.09)	0.08 (0.06)
Below average	- 0.13 (0.30)	- 0.69 (0.29) **
Affective engagement	0.88 (0.10) ***	0.43 (0.06) ***
Cognitive engagement	0.03 (0.10)	- 0.04 (0.06)
Learning environment characteristics		
Peer attitudes toward school	0.25 (0.10) **	0.01 (0.06)
Own attitudes towards school	- 0.33 (0.05) ***	0.29 (0.03) ***
Teacher support in classroom	- 0.04 (0.05)	0.01 (0.03)
Student-teacher relationships	- 0.02 (0.05)	- 0.17 (0.04) ***
Disciplinary climate	- 0.08 (0.04) *	- 0.04 (0.03)
Academic aspirations at age 15		
Expect to complete lower secondary	0.12 (0.09)	0.08 (0.06)
Weight		
Sampling & wave 1 attrition weight	0.03 (0.06)	0.03 (0.04)
Number of observations	1,751	2,921
Pseudo r-squared	0.2419	0.0988
Log pseudolikelihood	- 580.93	1,813.99

*Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Standard error in parentheses; regression before imposition of calipers.*

Being male, Indigenous and from a non-English speaking background, as well as living in a non-capital city or rural/remote localities, appear to increase the probability of having a 'very weak' or 'weak' weak sense of belonging at school at age 15/16. However only the relationships between gender and 'very weak' sense of belonging and rural/remote locality and 'weak' sense of belonging are statistically significant. ESCS does not have a clear relationship with sense of belonging at school in the present analysis. Self-assessment of academic performance and educational engagement do, with statistically significant

relationships evident between students' self-perceptions of below average numeracy and overall academic performance and 'very weak' sense of belonging at school, as well as between respondents' self-reported affective engagement and their likelihood of experiencing either 'very weak' or 'weak' sense of belonging. In general, a more favourable perception of the learning environment tends to reduce the probability of having experienced a 'very weak' or 'weak' belonging at school, with statistically significant relationships between 'very weak' sense of belonging and peer and own attitudes toward schooling, disciplinary climate and affective engagement, as well as between 'weak' sense of belonging and student-teacher relationships, own attitudes toward schooling and affective engagement. Students who expect to complete lower secondary education demonstrate a statistically significant lower likelihood of experiencing a 'very weak' or 'weak' sense of belonging at school.

Treatment effects

Stage two of the PSM analysis estimates the average treatment effect for young people who experienced 'very weak' and 'weak' sense of belonging at school. Estimation specifies one-to-one, nearest neighbour matching with replacement (using the *STATA 14* statistical package, *'teffects psmatch'* routine). Imposition of calipers of .2 times the standard deviation of the (pooled) propensity score excluded 12 outlier observations from SATT estimation under the 'very weak' sense of belonging at school treatment specification and eight outlier observations from SATT estimation under the 'weak' sense of belonging treatment specification. Table 6.7 summarises the SATT for both levels of treatment. There is broad statistical support for the hypothesis that increasing young people's sense of belonging at school at age 15/16 (i.e., from 'very weak' to 'moderate-to-high' (stringent treatment definition) and from 'weak' to 'moderate-to-high' (less stringent treatment definition) improves their life satisfaction outcomes in all three domains. These findings firm up as respondents progress through life (from age 23/24 to age 25/26). The same pattern is observed for psychological distress. Improvements in sense of belonging at school at age 15/16 reduce respondents' likelihood of experiencing psychological distress as adults, with statistically significant effects increasing with the level of treatment.

Table 6.7. Estimated treatment effects

Outcome model	Treatment effect†	Se	n-treated	n-control
'Very weak' sense of belonging at school (age 15/16)				
Life satisfaction (age 23/24)				
Professional horizons	0.11 **	0.05	265	1,473
Social life	0.21 ***	0.04	265	1,473
Economic status	0.01	0.03	265	1,473
Life satisfaction (age 25/26)				
Professional horizons	0.09 ***	0.05	265	1,473
Social life	0.20 ***	0.04	265	1,473
Economic status	0.08 *	0.04	265	1,473
Wellbeing (age 25/26)				
Kessler psychological distress	- 0.33 ***	0.07	265	1,473
'Weak' sense of belonging at school (age 15/16)				
Life satisfaction (age 23/24)				
Professional horizons	- 0.01	0.03	1,238	1,473
Social life	0.10 ***	0.02	1,238	1,473
Economic status	0.05 ***	0.02	1,238	1,473
Life satisfaction (age 25/26)				
Professional horizons	0.01	0.03	1,238	1,473
Social life	0.07 ***	0.02	1,238	1,473
Economic status	0.04 *	0.02	1,238	1,473
Wellbeing (age 25/26)				
Kessler psychological distress	- 0.07 *	0.04	1,238	1,473

*Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$*

† Sample average treatment effect of the treated (SATT); Se is standard error; n-treated, n-control after imposition of calipers.

Post-estimation balance diagnostics

Common support. As discussed in Chapter 5 (see Chapter 5, *Post-estimation balance diagnostics—common support*), the propensity scores of matched observations must be sufficiently similar to ensure that treated observations are matched with like controls. This condition requires adequate overlap in the propensity scores of members of the treatment and control groups. Figure 6.3a and Figure 6.3b provide graphical illustration that matching on the propensity score has been undertaken with common support under both the 'very weak' and 'weak' treatment level specifications.

Figure 6.3a. Density plot: common support before and after matching—'Very weak' sense of belonging at school (age 15/16)
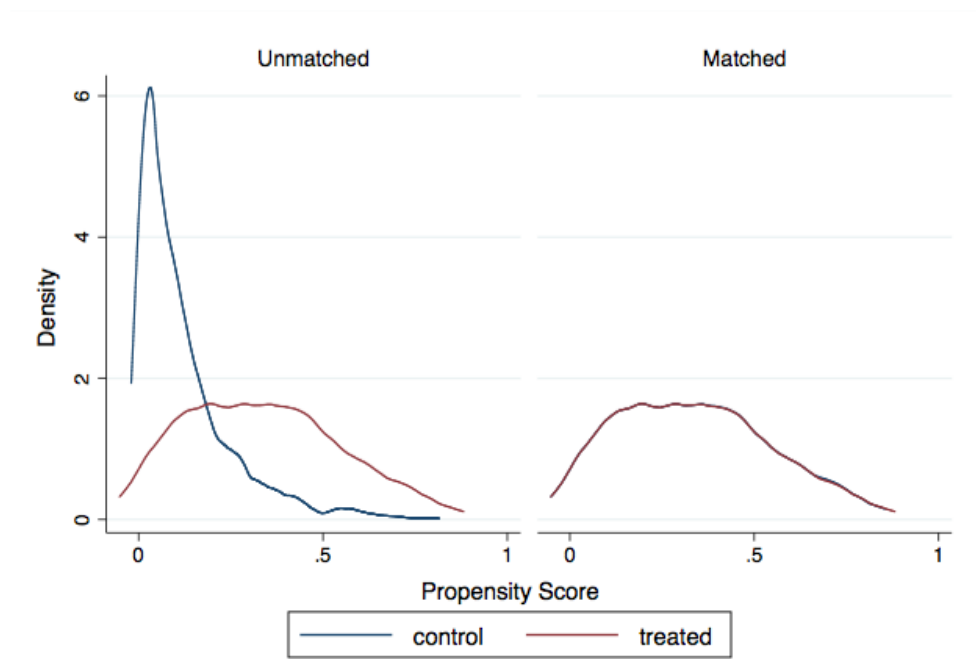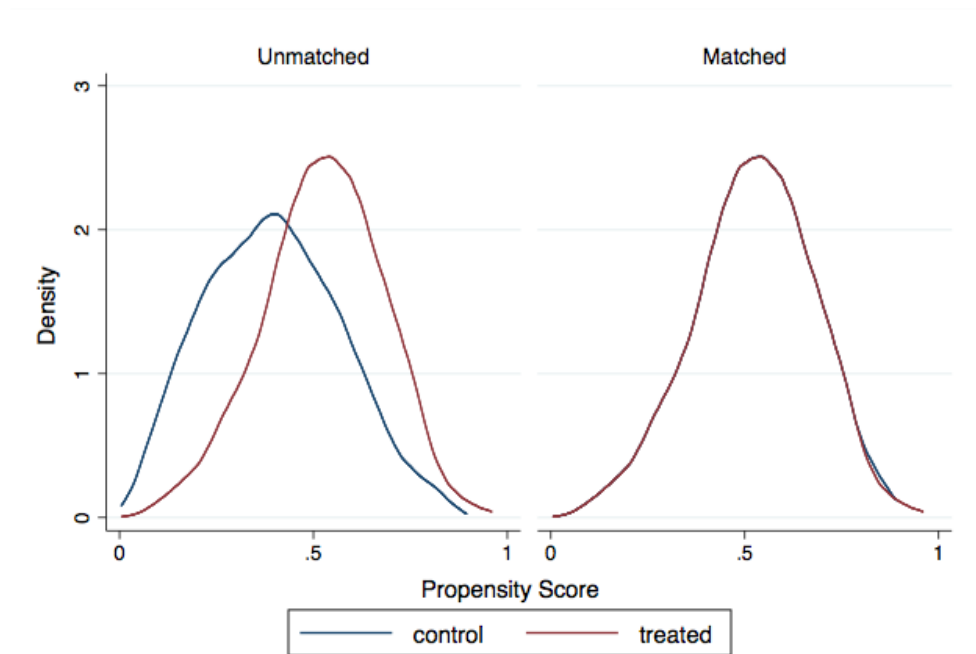

Figure 6.3b. Density plot: common support before and after matching—'Weak' sense of belonging at school (age 15/16)

Distributions of covariate means and prevalences in treated and control groups. Matching on the correctly specified propensity score balances the means and prevalences of covariates in the treated and control groups. Following Austin (2009), the 95% confidence intervals of the empirical sampling distributions of the standardised differences of covariate means and prevalences is derived. Figure 6.4a and Figure 6.4b show that (1) matching on the propensity score has substantially reduced most of the mean and prevalence differences in baseline covariates between treated and control groups and that (2) remaining differences provide no statistically significant evidence that the propensity score models have been misspecified.

Figure 6.4a. Standardised bias of covariates before and after matching—'Very weak' sense of belonging at school (age 15/16)
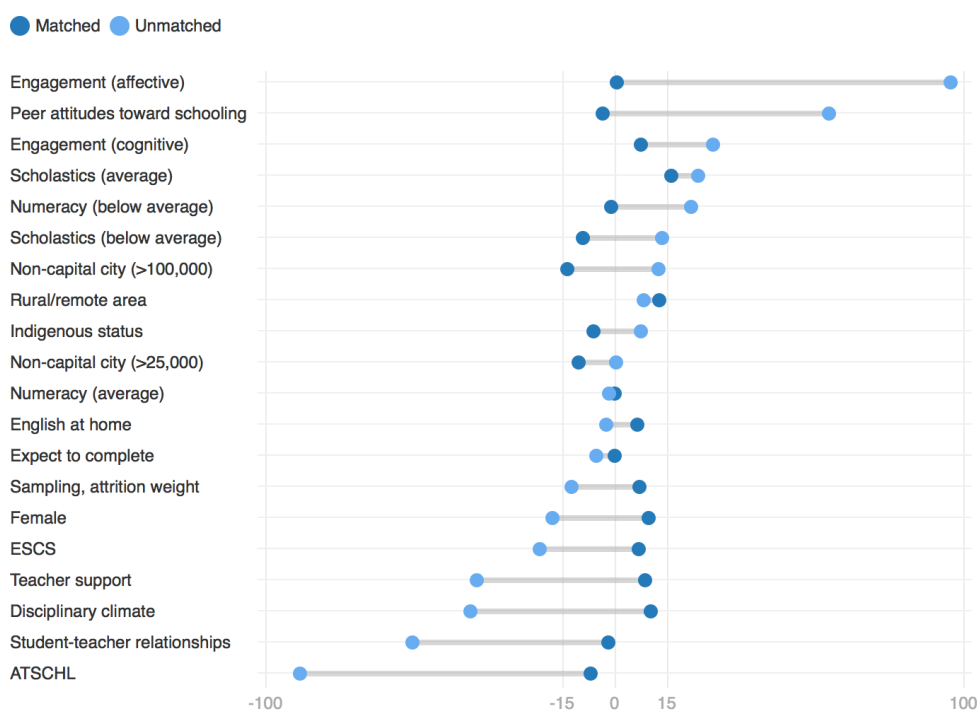
Note: Reference lines indicate the narrowest 95% confidence interval of the empirical sampling distribution of the standardised differences of binary and continuous covariates. Values of percent standardised bias (after matching) that fall within this range indicate no statistically significant evidence of propensity score model misspecification.

Figure 6.4b. Standardised bias of covariates before and after matching—'Weak' sense of belonging at school (age 15/16)
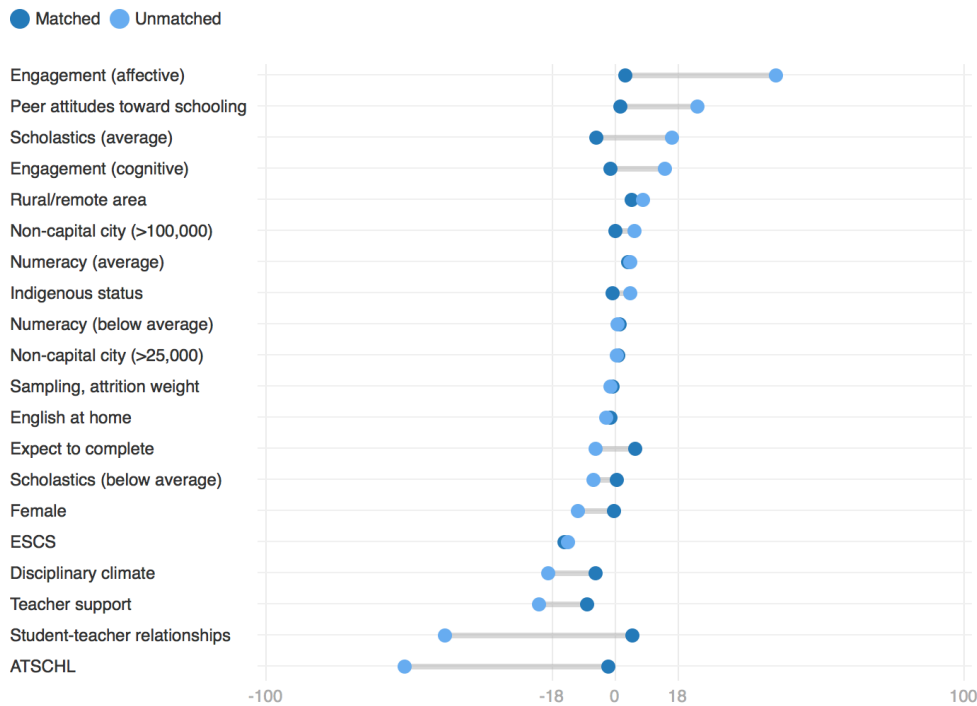
Note: Reference lines indicate narrowest 95% confidence interval of the empirical sampling distribution of the standardised differences of binary and continuous covariates. Values of percent standardised bias (after matching) that fall within this range indicate no statistically significant evidence of propensity score model misspecification.

Variance ratios. Matching on the propensity score should also balance the between treated and control groups. Following Imai et al. (2008), the between-group estimated variances are examined to assess balance of the underlying covariate distributions. Variance ratios approaching unity imply that young people who experienced 'very weak' and 'weak' sense of belonging at school have been matched with otherwise similar young people who did not. Table 6.8 compares the variance ratios of prognostically important continuous covariates in the matched and unmatched samples. The majority of ratios fall within the 95% confidence interval of the F-distribution with n-1 and n-1 degrees of freedom under the assumption of equality for both levels of treatment. The variance ratios of 'affective engagement' and 'student-teacher relationships' exceed the 97.5th percentile under the strong treatment assumption (i.e., 'very weak' sense of belonging at school). The variance ratio of 'teacher support in the classroom' is below the cut-off for the 2.5th percentile under the weak treatment assumption (i.e., 'weak' sense of belonging). These results are broadly consistent

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with the supposition that the models are properly specified, with balanced distributions of covariate values in the treatment and control groups.

Table 6.8. Variance ratios of select continuous covariates

Variance ratio (Vt/Vc)†	'very weak'	'weak'
Determinants of treatment		
Educational engagement		
Affective engagement	1.46 (1.43) *	1.02 (0.96)
Cognitive engagement	1.19 (1.33)	0.95 (1.04)
Learning environment characteristics		
Peer attitudes toward school	1.01 (1.10)	0.94 (0.92)
Teacher support in classroom	0.91 (1.04)	0.79 (0.82) *
Student-teacher relationships	1.30 (1.11) *	0.92 (0.62)
Own attitudes towards school	1.17 (0.95)	1.03 (0.73)
Disciplinary climate	0.89 (0.87)	1.00 (0.87)

† The ratio (Vt/Vc) represents the variance of treated observations as a proportion of the variance of control observations for listed covariates. Unmatched variance ratios are in parentheses. *Denotes the variance ratio of the matched sample falls outside the 95% confidence interval of the F-distribution with n-1 and n-1 degrees of freedom.

DISCUSSION

The analysis presented here provides significant evidence that young people's sense of belonging at school at age 15/16 has strong, independent impacts on their quality of life as adults. Consistent with the hypothesised treatment effect, these impacts are greater under the strong treatment assumption: with the exception of satisfaction with economic status (age 23/24),[8] the negative impacts of social marginalisation were stronger for young people who experienced 'very weak' sense of belonging than for those who experienced 'weak' sense of belonging. Though not tested here, respondents' happiness with their professional horizons and social life appear to change in similar proportions for treated and control groups between age 23/24 and 25/26, suggesting that observed treatment effects on these outcomes are stable over this time frame. Results indicate that having experienced social marginalisation at school tended to reduce respondents' subsequent satisfaction with their professional horizons. For the purpose of this study, this latent construct is comprised of respondents' self-reported attitudes concerning their happiness with their future, the work they do and their career prospects. Lower levels of satisfaction with these items may reflect lower levels of personal empowerment stemming from social marginalisation experienced while at school. In this sense, 'empowerment' may be understood to reflect, inter alia, individuals' socially supported sense of personal control, resilience and dispositional optimism (Perkins &

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Zimmerman, 1995). Young people who do not experience a strong sense of connection and solidarity with their peers at school may feel they lack the personal and social resources to actively shape their own environment. As a corollary, young people who experienced (very) weak sense of belonging subsequently reported lower levels of happiness with their interpersonal relationships and social life more generally. Unsurprisingly, young people's experience of social marginalisation at school does not appear to be isolated from their sense of social inclusion later in life—individuals who do not experience fulfilling relationships and a strong sense of belonging while at school are less likely to report strong feelings of belonging as adults.

Results indicate that respondents' who experienced 'very weak' sense of belonging became less satisfied on average with their economic status over time. Their increasingly negative outlook—from 0.01 (age 23/24) to 0.08 (age 25/26)—may indicate that the consequences of social alienation in youth tend to worsen over time with regard to individuals' happiness about their economic status as adults. This may reflect the contribution of young people's sense of belonging in school to their subsequent socioeconomic integration. As young people transition from schooling into young adulthood, they commonly experience periodic episodes of being not in education, employment and training (NEET) (OECD, 2016). Accumulated social capital may play an important role in helping young adults to overcome short-term, transitional economic marginalisation (Verhaeghe et al., 2015). Individuals who experience extensive social alienation as youths may have fewer resources to do so, locking them into longer and more frequent durations of economic inactivity and the cyclical damaging effects associated with being long-term NEET (Carcillo et al., 2015). Economic status may also grow in importance over this age range as young adults seek out greater levels of independence. A relative lack of financial resources among respondents who experienced a (very) weak sense of belonging at school may exacerbate between-group differences in satisfaction with economic status. Further research is needed to distinguish socioeconomic characteristics of young adults that may help account for observed differences.

Perhaps most striking is the revealed impact of social marginalisation on young people's future mental and emotional health. On average, respondents who reported 'very weak' sense of belonging at school at age 15/16 experienced levels of anxiety and depression as adults 33% higher than their contemporaries. This is compelling evidence in support of Baumeister and Leary's (1995) contention that sense of belongingness is a fundamental human motivation. Further, these results demonstrate that the impacts of social alienation at school

persist beyond the initial experience, with negative consequences for individuals' mental and emotional wellbeing extending well into adulthood.

CONCLUSIONS

This study finds that social alienation at school at age 15/16 adversely affects individuals' life satisfaction and mental and emotional wellbeing a decade later. The benefits to young people of enhanced social inclusion at school, therefore, are shown to extend well beyond the initial experience. However, interpretation of the estimated treatment effects presented here requires prudence. Even if one accepts that subjective indications of quality of life (such as life satisfaction and mental and emotional wellbeing) can be adequately quantified for purposes of inter-personal comparison, it would be illogical to quantify individuals' self-reported levels of these latent constructs as proportions. In other words, it would be the height of folly to report that individuals experience a particular percentage of the total happiness and wellbeing purportedly available to them. Nonetheless, quantification of self-reported quality of life indicators may facilitate analysis of the importance of belonging at school in terms of relative—if not absolute—magnitude. Within the present sample, having experienced social alienation at school at age 15/16 resulted in demonstrably lower levels of life satisfaction and mental and emotional wellbeing in adulthood. These relationships have been shown to be significant, stable and causal.

If society's contemporary understanding of the purpose of education is to be extended to include health and happiness as worthwhile ends in and of themselves, then we must elucidate the barriers to realising such outcomes and empower educators to bring about necessary change. The earnest social inclusion of all young people in educational settings demands enhanced technical and professional resources, institutional planning, responsive pedagogies and other supports required by diverse young people who may otherwise be pushed to the margins. Failure to do so bears long-term consequences for the wellbeing and life satisfaction of young people as they transition into young adulthood.

1 The allocation of observations to deciles used data from the first interview (10,370 respondents). Subsequent attrition of some respondents also contributed to deciles of more or less than ten percent. In addition, the uneven distribution of index values among respondents that have continued through wave 11 suggests a correlation between survey attrition and respondents' sense of belonging at school.

2 Rather than allow the 2nd decile alone to indicate the less restrictive definition of treatment, 'weak' sense of belonging at school is comprised of scores in the 2nd, 3rd, 4th and 5th deciles together. This broader treatment definition prevents model estimates from being arbitrarily skewed by non-uniform allocations at affected decile boundaries.

3 Willms' study of student engagement used data gathered through the 2000 PISA student cohort, rather than the 2003 cohort used here. However, the questions and scaling used to derive the index of students' sense of belonging to school are the same in both surveys.

4 There is considerable debate among quantitative researchers regarding 'acceptable' values of alpha for internal consistency of latent construct scale items. Streiner (2003) concurs with Nunnally (1967) that alpha values of .50 to .60 are appropriate for early stage research, with values of .80 more appropriate for basic research tools (in Austin, 2009). Values reported here may therefore be slightly lower than is conventionally recommended. However, retained factors are not being employed here in a clinical capacity, thus estimation of internal consistency may be employed to triangulate the validity of constructs identified through exploratory factor and parallel analysis.

5 Questions pertaining to the Kessler psychological distress construct were only asked in the final wave (wave 11), hence comparable results are not available for age 23/24.

6 For detailed descriptions of variables, including decomposition of index items, see Chapter 5.

7 The first treatment model uses 'very weak' sense of belonging at school at age 15/16 as the dependent variable. The second, less stringent treatment model specifies 'weak' sense of belonging as the dependent variable. The same set of covariates is used in both.

8 While the estimated treatment effect of 'very weak' sense of belonging at school on life satisfaction with economic status (age 23/24) (0.01) was not statistically significant at the 90% confidence level, this result is plausibly an outcome of the limited sample size, rather than an indication that the hypothesised strength of treatment effect is inconsistent (see Figure 6.7).

CONCLUSION

This dissertation is interested foremost in the various ways that flexible learning practitioners think about and articulate the value of education in society's emancipatory interest. It unpacks flexible learning practitioners' professional self-concept as agents of social transformation, and the creative, critical means by which they demonstrate outcomes in FLOs. As market-based educational policies concentrate disadvantage in ill-equipped government schools, FLOs play an important role in helping disadvantaged young people to re-engage in education. More than 'last-chance' programs for disadvantaged young people, though, the programs explored here promote a vision of education in which young people are empowered to spearhead meaningful social change. Practitioners encourage young people to challenge not only their own socioeconomic marginalisation, but that of their communities as well (J. Thomas et al., 2017). Their commitment to re-inclusion and social equity thereby comprises a sharp riposte to the 'atomisation' of learning institutions as market agents (Clarke, 2012a) and the role of educational disenfranchisement in the cyclical reproduction of poverty and disadvantage.

Based on practitioners' own accounts of value, the research also utilises quantitative methods to help substantiate the long-term impact of their work. Holistic educational pedagogies for young people at risk of disengagement are shown to have economic and psychosocial impacts lasting well into adulthood.

Research questions

This dissertation is organised around two central research questions: (1) In what ways do flexible learning practitioners operationalise critical professional subjectivities in FLOs? and (2) How may practitioners' conceptions of educational value be empirically substantiated through the use of quantitative means? Broadly speaking, the first question is addressed in Part I of the thesis; the second question is addressed in Part II.

Key findings—Part I

In Chapter 1, FLOs are contextualised within Australia's neoliberal educational arena. The country's educational policy discourses, which privilege the market-based logics of efficiency, competition, marketisation, commoditisation and privatisation, assert considerable pressure on schools to 'exit' young people viewed as problematic. Through the ongoing devolution of enrolment and disciplinary authority, schools are increasingly

empowered to do so. At the same time, state and federal authorities in Australia have supported the provision of alternative educational pathways for disadvantaged young people. FLOs are thereby playing a growing role in the country's educational landscape. Chapter 1 also explores how competitive and standardised assessment regimes have facilitated the depoliticisation of education in Australia. By addressing themselves to issues of equity and considering a wider range of valued outcomes, flexible learning practitioners resist the imposition of neoliberal subjectivities in education. Their work is thereby posited as a form of political action, their praxis a subversive program of social transformation.

Chapter 2 explores the deliberations by which such programs are constituted, as well as the structural relations of power informing flexible learning practitioners' professional identities. Ball's (2000) critique of neoliberal performativities in education extends to the ways in which institutionalised fabrications are constitutive of schools. So too within FLOs, do "certain organising principles" encourage practitioners to adopt practices that cohere with an articulated organisational identity and the particular professional subjectivities that identity implies (p. 15). Within the FLO, 'appropriate' corporate practices are adopted and practitioner subjectivities shaped. These performances seem undertaken at times in earnest, at other times with a degree of cynicism and are shown to be both internally and externally facing.

To better understand the counter-hegemonic potential of practitioners' subjectivities, Chapter 2 utilises Fraser's (1990) conceptualisation of the 'subaltern counter-public,' a political assembly drawn together through a recognition of its own marginalisation and program of resistance. At Sturt Pea, practitioners articulate an agenda of social change in which Aboriginal young people gain the agency to encounter non-Indigenous Australian society on equal footing. This transformation is linked to the effective provision of core literacy and numeracy skills, and a willingness on the part of the FLO to take risks not possible in 'mainstream' educational settings. At Blue Gum, practitioners emphasise the disempowering effects of a lack of institutional support. While they frequently underscore their commitment to the young people they serve, they communicate feeling isolated and unrecognised in their work. In this regard, respondents draw parallels between Blue Gum's youth cohort and themselves. By persisting in their efforts, both groups consciously resist their marginalisation. In the two sites presented, flexible learning practitioners' professional self-concept and sense of agency are revealed as discursive formations strongly mediated by the institutional circumstances of their parent organisations.

Chapter 3 describes the various and creative ways in which flexible learning practitioners' validate participant outcomes in FLOs. While interviewed practitioners affirm the value of

'traditional' educational outcomes like literacy, numeracy and matriculation, they reject that an assessment of their impact should be limited to these indicators. Their insistence on the value of students' wellbeing as both a requisite of meaningful engagement and a worthwhile educational outcome in and of itself stands in stark contrast to the quantitative and comparative assessment practices that dominate mainstream education. Further, these practitioners appraise educational outcomes not only with regard to individual improvements in literacy and numeracy, but through young peoples' acquired capacity to challenge their socioeconomic marginalisation and the structures that reproduce the impoverishment and exclusion of their communities (te Riele et al., 2017). It is within this context that they refer to students' 'distance travelled.' This construct is not intended to convey a linear notion of individual progress. Rather, implies a multi-dimensional and social development. By stressing the potential of FLOs to interrupt inter-generational cycles of poverty and exclusion, practitioners frame the goals of flexible learning not just as the actualisation of the individual, but as a means to the realisation of social justice.

Key findings—Part II

Chapter 4 qualifies the extent of educational disengagement in Australia and maps out the country's principal policy responses of the previous decade. The chapter reviews the research literature enumerating the economic returns to education and details these studies' underlying econometric models. Discussed analytical frameworks include ordinary-least-squares (OLS) regressions based on Mincer's (1974) Human Capital Production function and instrumental variables (IV). Based on the methodological review, neither OLS nor IV is deemed appropriate for estimating long-term economic returns to FLOs. A matching estimators technique is proposed for estimating the long-term impacts of flexible learning in Australia. The theoretical framework underlying the use of propensity score matching is outlined, including the model's potential strengths and limitations.

Using data from the 2003 cohort of the Longitudinal Surveys of Australian Youth (LSAY), Chapter 5 queries the impact of behavioural engagement in youth on subsequent engagement status approximately 10 years later. Utilising propensity score matching for the estimation of treatment effects, the model controls for potentially confounders, including gender, Indigenous status, economic, social and cultural status, place of residence, schooling history, numeracy, affective and cognitive engagement, own and peer attitudes towards schooling, individualised learning support, student-teacher relationships, disciplinary climate and expectations to complete lower secondary education. Preventing the disengagement of at-risk young people aged 15-17 is found to reduce the risk of disengagement at age 23/24 by over

half. The robustness of these results is tested through a number of post-estimation balance diagnostics, including the assessment of common support, and a comparison of the standardised bias and covariance ratios of covariates before and after matching.

Chapter 6 extends the valuation exercise to flexible learning's psychosocial outcomes. Specifically, it appraises the impact of young people's sense of belonging in school on their subsequent mental and emotional wellbeing and life satisfaction. Again using propensity score matching with data from LSAY's 2003 cohort, a weak sense of belonging at school at is found to manifest in statistically significant lower levels of self-reported mental and emotional wellbeing one decade onwards. Findings indicate that experiencing strong social marginalisation at school at age 15/16 leads to lower self-reported satisfaction with one's professional horizons, social life and economic status, and dramatically higher chances of experiencing psychological distress ten years on.

Methodological and theoretical contributions

This dissertation offers a number of methodological and theoretical contributions to the study of alternative education in Australia and beyond. Foremost, as a multimethod study, it combines the tools of critical ethnography, discourse analysis and econometric modelling. The latter is not undertaken to *validate* the qualitative findings—flexible learning practitioners do not require sophisticated statistical analyses to recognise the impact of their efforts. Rather, the econometric approach serves to *triangulate* these impacts through multiple forms of evidence not typically utilised in estimations of the returns to education. By articulating the value of FLOs through a quantitative frame, I hope to empower flexible learning practitioners—alongside educators who esteem their aims and methods—to participate on more equal footing within a market-oriented policy discourse that has historically downplayed education's so-called 'soft' outcomes.

In Part I, I utilise discourse analysis to unpack power relations in the flexible learning sphere—relations between FLOs and 'mainstream' schools, as well as within flexible learning organisations themselves. What emerges is a clear agenda of counter-hegemonic social change, discursively mediated between FLOs and their parent organisations. The research makes clear the vast structural differences at play in the flexible learning arena and intra-organisational dynamics that empower and constrain flexible learning practitioners as agents of social change. The qualitative component of the research also challenges the notion that the assessment of outcomes in FLOs is undertaken in an ad-hoc fashion. On the contrary, the research demonstrates practitioners' cognisant, critical and continuous approach to educational assessment. These assessment practices are predicated on practitioners' deep

knowledge of program participants and would ideally inform best-practices in 'mainstream' educational settings.

The quantitative analyses of the thesis elucidate the long-term impact of outcomes valued by flexible learning practitioners. To my knowledge, no other research has attempted to model these impacts using econometric methods and longitudinal data in the explicit context of alternative education in Australia. The findings contain a number of important insights. First, behavioural engagement in youth is demonstrated to be a worthwhile outcome in and of itself with regard to respondents' future likelihood of experiencing disengagement. With that said, it is also worth noting that the overall risk of experiencing persistent disengagement in adulthood is relatively low. This indicates that other mechanisms—potentially within the educational system and likely beyond—facilitate the socioeconomic re-inclusion of most disengaged young people. Identifying these concurrent mechanisms and unpacking their various influences on re-engagement would be an important next step for research aiming to promote the socioeconomic (re)inclusion of disadvantaged Australians. The dissertation also demonstrates that fostering young people's sense of belonging at school is likely to have profound, long-term benefits for young people at risk of social marginalisation. These findings suggest that the promotion of students' sense of belonging belongs front-and-centre in the ongoing deliberations over the underlying purpose and future direction of education in Australia.

Significance and concluding remarks

Economists have generally appraised the benefits of school-based educational interventions by estimating the average effect of Year 12 completion on labour market outcomes. Indeed, the tools of economic orthodoxy necessarily lend themselves to a comparison of averages; economists seek out differences in means, charting gradual movement at the middle. The nuance and complexity of a young person's lived experience are generally left aside. Consequently, the econometric frame often fails to encapsulate many of education's deeper aims. This is not just a methodological disconnect, it is also a conceptual one. Although educators and economists may be asking a similar question—i.e., to what extent can education benefit a young person across his or her lifetime?—they have radically disparate approaches to finding the answer. A genuine estimation of the value of educational intervention requires an appreciation of changes at the margins. This appreciation requires a novel discourse between disciplines—a cognitive bridge between the classroom and the data sets. By grounding analysis at the grassroots, economists may then ask questions better suited to the task. What specific challenges do young people face? Are the risks of

educational disengagement reflected in validated data? What econometric tools can best encapsulate the likely trajectories of at-risk young people?

To explicate the value of participation in flexible learning, one must not only consider the educational destination, but also account for the distances travelled by disenfranchised young people. Like at-risk youth elsewhere in the OECD, early school leavers in Australia are far from 'average.' Aggregating the impact of schooling across all young people and pedagogies obscures the added value of tailored learning interventions for marginalised youth. If flexible learning helps young Australians to close the gap with their peers, returns to FLOs may indeed be higher than the national average return to high school matriculation. On the other hand, if poverty, disaffection with learning or lack of human security prove irreparable in the determination of one's long-term trajectory, then the economic returns to flexible learning could well be lower than the national average return to schooling. In the latter case, policy makers may inappropriately place the onus for poverty on the individual, rather than on systemic failures perpetuating intergenerational disadvantage. By extension, there may be insufficient impetus to address the underlying causes of social and economic exclusion. Where education is uncritically held up as society's great equalizer, policymakers may fail to grasp the importance of social welfare, health, proximate and appropriate employment opportunities, and other requisites of economic equality. Informed by FLOs' own terms of reference, stakeholders may enhance valuations of flexible learning programs, expose structuralized disparities in returns to education for particular subgroups of marginalised young people, and strengthen the empirical basis for educational policymaking in Australia.

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