(In)Equity and Academic Streaming in Ontario: Effects on Students and Teachers and How to Overcome These

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ABSTRACT

This study is concerned with equity and academic streaming in Ontario K-12 education. The purpose of this study is to investigate the ways in which teachers' reflections on their professional experiences can deepen our understanding of academic streaming and its impacts on students in Ontario, with a focus on: a) factors, other than academic ability, that determine a student's stream; b) the effects of academic streaming; and c) how the education system, particularly vis-à-vis streaming, might be improved to better serve students and teachers based on these findings. Using semi-structured interviews with practising educators, this study serves to extend and consolidate existing research on streaming, which tends to be largely negative with regards to how academic streaming works in practice and the effects that it has on students. This study finds some benefits to academic streaming, mostly for teachers and students within the academic stream, however, most findings strongly suggest that our current system of academic streaming is highly inequitable, particularly due to the influence of socioeconomic status, race, and level of parental advocacy on which stream a student takes. This study strongly suggests that academic streaming is largely detrimental since it segregates students and puts many "on a pathway…that closes a lot of doors." Another significant finding is that participants were keen to increase student integration using approaches such as destreaming. Other methods to make destreaming feasible are also suggested, such as reducing class size and increasing teacher collaboration.

Keywords: academic streaming; destreaming; socioeconomic status; race; parental advocacy

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Chapter One: INTRODUCTION

1.0 Background and Purpose of the Study

Ontario has had a complicated history of academic streaming. Academic streaming or tracking refers to "the practice of assigning students to instructional groups on the basis of ability" (Hallinan, 1994, p. 1). Prior to 1999, Ontario had an official policy of academic streaming, where students were divided into one of three streams for their high school career: basic (for students likely to end up in the workplace), general (for students likely to enter into apprenticeships or go to college), or advanced (for students likely to go on to university) ("Annual Report," 2013, p. 29). This system was deemed unfair, as it tended to be students from lower-income families who ended up in the basic stream, and students from higher-income families who went into the advanced stream, perpetuating repeating cycles of disadvantage on the one hand, and privilege on the other (Rushowy, 2013). During the Bob Rae New Democratic Party government, the Education Minister Tony Silipo announced in 1992 that the Ministry wanted to de-stream the curriculum (O'Sullivan, 1999). This system of official academic streaming was not actually abolished until 1999, during a wave of educational reform under the Harris government.

With the new system post-1999, students in grade 8 choose (with assistance from parents and teachers) between "academic," "applied," "essential,"[1] or "open" courses [see Diagram 1 below]. Some courses such as arts, technology, and health and physical education are designated as "open" ("Annual Report", 2013, p. 28). "Academic" courses are necessary in order to pursue grades 11 and 12 "university" courses, which are necessary to apply to university for post-secondary study. "Applied" courses tend to lead to "college" or "workplace" courses in grades

[1] Essential courses are sometimes called locally developed courses.

11 and 12, which, unsurprisingly, usually lead to students going to college or into the workplace after high school. The 1999 decision, then, made course selection slightly more nuanced, with more options than the original three.

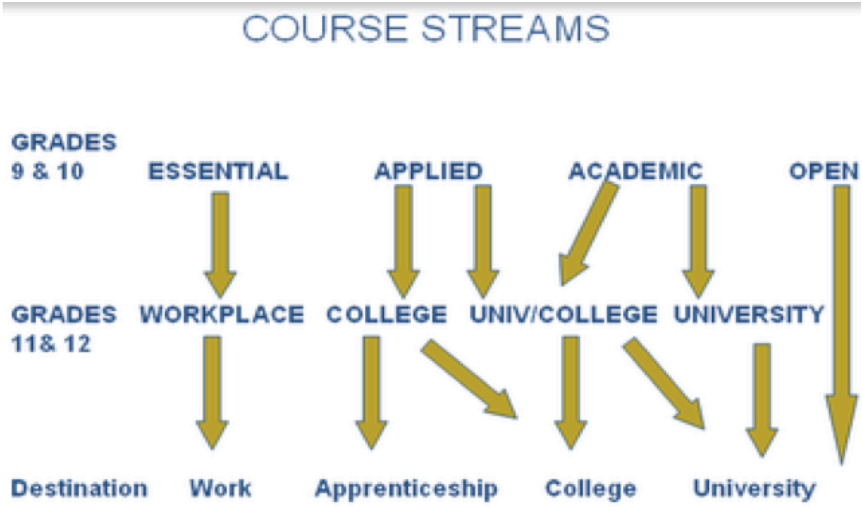

Diagram 1. Source credit: "High School Pathways" (n.d.) in *Strathroy District Collegiate Institute.* Retrieved from http://www.tvdsb.ca/Strathroy.cfm?subpage=93296

Although academic streaming was officially abolished in Ontario in 1999 by the Harris government, it is clear that academic streaming still thrives, but under a slightly different guise of the new language of academic, applied, university preparation, college preparation, and so on. Indeed, the 1999 curriculum document states that "the types of courses offered and their organization provide for graduated *streaming* of courses in grades 9 to 12 that will keep options open for all students in the earlier grades and prepare students in senior grades for their future destinations [emphasis added]" (Ontario, 1999, p. 13).[2] Thus, even the language of "streaming" remains the same in the earliest curriculum document from this new system.

[2] This policy document has since been superseded by *Ontario Schools, Kindergarten to Grade 12: Policy and Program Requirements, 2011 (OS).*

Not only is the language consistent across the two systems, but so are some of the problems. Education advocacy group, People for Education, along with reporters from *The Star*, claim that "low-income 'streaming' in Ontario high schools is alive and well" (Rushowy, April 29, 2013). Kristin Rushowy, a reporter for *The Star*, wrote an article in 2013 about the correlation between family income and streaming, in which she noted the following correlation: students from lower-income families are far more likely to take applied and workplace courses than their peers from higher-income families. This article is particularly of note, given that the decision to stop official streaming in 1999 was largely based on an outcry against perceived biases against lower-income students (Rushowy, April 29, 2013). Clearly, the contentions around academic streaming are not dead yet.

This study seeks to investigate how the current system of streaming affects Ontario high school students. While Ontario already possesses an internationally well-regarded education system, there is still room for improvement. Given how important secondary education is to students' options for the future and their development intellectually and emotionally, it is vital that Ontario has a system that promotes the best educational opportunity, best academic achievement, and best emotional wellbeing for all students. This study seeks to investigate whether the current system of academic streaming is working optimally to achieve such goals.

1.1 Statement of the Research Question

Some of the questions that arose when first considering this project were: Is this system working for students? Is it equitable? Do teachers think it is fair? Is this system an improvement over the pre-1999 system? These inquiries were then distilled down to one primary question, and three subsidiary questions. The principal question that this research will address is: How can

teachers' reflections on their professional experiences deepen our understanding of academic streaming and its impacts on students in Ontario?

The following questions will support the primary research question:

1. What other factors, other than academic ability, determine a student's stream?
2. What are the effects of academic streaming?
3. How can Ontario's education system, particularly vis-à-vis streaming, be improved to better serve students and teachers?

1.2 Significance of the Study

Relatively little research has been conducted on the effects in Ontario of the current academic streaming system. This study aims to contribute to the literature on tracking and streaming in education, and also offer suggestions for how to improve Ontario's education system. While much research was conducted on this matter in Ontario prior to 1999, (for example, see Allison (1992), Cheng (1980), Curtis (1992), and Duggan (1995)), there is only limited research that considers the impact on students of the current system. This study seeks to make a modest impact on this dearth of research.

Academic streaming is, however, back on the agenda. In the recent Toronto municipal election of October 27th, 2014, streaming was a focal part of some campaigns. Social Planning Toronto, for example, had a handout entirely devoted to "education and streaming in Toronto," where it explained the unfairness and inequality of the current system of academic streaming. Social Planning Toronto referenced several studies, such as those conducted by People for Education (2013), and scholar David Clandfield et al. (2014), that highlight the tendency for low-income students and those from minority groups to end up in applied or locally-developed

courses (Social Planning Toronto, 2014, p. 19). The fact that academic streaming was on an election brochure shows that this matter is once again gaining prominence in Ontario. This study is therefore timely as the discussion undoubtedly resurfaces amongst the electorate, local politicians, and, increasingly, academics.

Encouragingly, several school boards, such as the Toronto District School Board (TDSB) have initiated pilot projects to trial destreaming. Destreaming refers to the practice of removing streaming in a course. The TDSB is researching the efficacy of this pilot project, and it will be interesting to follow the progress of initiatives such as this.

While there is relatively little – albeit growing – contemporary research into the effects of academic streaming in Ontario, there is a large body of research on the topic of streaming in other parts of the world. Scholars from countries such as the United Kingdom, the United States, Spain, Germany, Italy, and Denmark have conducted studies into such matters as the equity of academic streaming (Hidalgo-Hidalgo, 2014), academic streaming and residential income segregation (De Fraja and Martínez-Mora, 2014), how streaming is associated with dropping out of high school (Werblow, Urick, Duesbery, 2013), and the effect of streaming on educational inequality (Holm, Meier Jæger, Bernt Karlson, and Reimer, 2013). This paper will draw on both Ontario-focused and international research in order to investigate the effects of streaming in Ontario.

1.3 Background of the Researcher

Born in England, I was educated in the British system for my primary and secondary education. Fortunately, I passed the requisite entrance examinations, and was thus able to go to academically excellent schools during my childhood and adolescence. Since there were rigorous

entrance examinations and an expectation of academic success, these schools did not have a large spread of ability. Many of the students had parents with at least one postsecondary degree, and most of the students went on to postsecondary education. Consequently, my learning environment could not exactly be described as a "mixed-ability" setting, since almost all of the students were bright and well-supported. This perhaps skews my perception of streaming, because, although I did not experience it officially within school, it could be said that I self-selected for a school that only took bright students, which is similar to streaming in many ways.

My primary and secondary schools fostered environments of learning and inquiry, and it was due to the inspiration of my history and English teachers that I wished to study these subjects at the postsecondary level, and eventually go on to teach them at the secondary school level. For a variety of reasons, I decided to pursue my undergraduate studies at the University of Toronto, where I majored in English and History, with a minor in Political Science. During my degree, I volunteer-tutored with the "TDSB Tutors in Schools" program, and very much enjoyed working one-on-one with a high school student who was struggling with his reading and comprehension. This experience, combined with that of working with teenagers at summer camps, further promoted my desire to become a secondary school teacher. The Master of Teaching degree seemed a logical choice, given the rigour and reputation of the program, and the opportunity to conduct research.

Having been raised and educated in England for primary and secondary school, I was curious to understand how the education system worked in Ontario. In England, every student across the country takes the same examinations at age sixteen: the General Certificate of Secondary Education, or GCSEs. These examinations are compulsory, and are a prerequisite for taking the non-compulsory, standardized Advanced Subsidiary Level (AS Level) examinations at

the age of seventeen, and then the Advanced Level (A Level) examinations at the age of eighteen. Familiar with a system that does not separate students into different classes with different curricula and culminating examinations, and different career trajectories, I was surprised to discover during my History course in my Master of Teaching that Ontario high schools have a system of academic streaming. I came to understand that from grade 9, Ontario students are placed in either academic or applied classes, and later, in university, college, workplace, or open classes.

My immediate reaction to this information was one of concern: How can students as young as thirteen possibly know whether they want to go on to university, to college, or straight into the workforce? Can teachers, parents, and students have a full understanding of a student's academic ability and potential at such a young age? Is it fair that students will have a different secondary education experience, simply based on supposed academic ability? How much impact do students' socioeconomic backgrounds contribute to which stream they end up in? Are students from poorer backgrounds more likely to end up in applied or workplace classes? Would this suggest that academic streaming in Ontario helps to perpetuate socioeconomic division? These questions fuelled my desire to investigate academic streaming in Ontario to a greater degree. I was keen to see whether Ontario teachers think the current streaming system is necessary and effective, and whether it harms the self-confidence of students who do not take the academic and university route. I must acknowledge that my initial reaction to the idea of academic streaming was negative. Consequently, there is the inevitable possibility of some bias in this paper in favour of some form of academic destreaming. Regardless, as a researcher I aspired to maintain as objective and level-headed a position as possible while conducting a

literature review, formulating questions for and interviewing my participants, and analyzing my findings. Nevertheless, it was important to be aware of my predispositions and expectations.

1.4 Methodology

For this study I conducted qualitative research. The research consisted of a literature review and semi-structured interviews with three experienced Ontario educators. These interviews were recorded and transcribed, and then analysed to draw out findings. Using qualitative research was a good fit for this study, as it allowed me to compare and contrast the experiences of three practitioners in order to gain insight into the effects of academic streaming in Ontario.

1.5 Limitations of the Research

This research is limited in several ways. First, the scope of this project is relatively small: through the semi-structured interviews, participants provided a snapshot of their thoughts and experiences. Unfortunately, there was no opportunity for follow up a year or two later. Secondly, the sample size was small, with only three participants. A third constraint concerned type of participants: it was beyond the scope of this study to interview students to gain their perspectives of being streamed. A fourth limitation of the research was that the participants were teachers in the Greater Toronto Area and near vicinity, meaning that the study lacks the perspectives of teachers elsewhere in Ontario. While it is possible that the findings of this research may apply elsewhere in Ontario, one cannot assume this to be the case.

1.6 Overview

This chapter introduced the research project, providing a brief description of what academic streaming is, a short synopsis of the history of streaming in Ontario, and how it

manifests in Ontario today in terms of course selection. Chapter One also outlined the purpose and significance of the study, highlighting why it is important to investigate teachers' perceptions of the effects of academic streaming on high school students in Ontario. The following chapter, Chapter Two, provides a review of the literature pertaining to academic streaming. It considers the benefits and disadvantages of streaming, along with those of destreaming. The review of the literature makes note of many of the issues relevant to this discussion, some of which will operate as frameworks for the study. Chapter Three contains a detailed description of the methodology for the study, including information on how the research was conducted, and how the data were analysed. Chapter Four discusses the results of the research, specifically as they refer to the major research question and the subsidiary questions. Lastly, Chapter Five considers the implications of the findings, the limitations of the project, and recommendations for practical implementations based on the research. Appendices follow at the end.

Chapter Two: LITERATURE REVIEW

2.0 Overview of the Organization of the Literature Review

This chapter contains an investigation into the literature related to the subject of academic streaming. The principal research question for this study is: "How can teachers' reflections on their professional experiences deepen our understanding of academic streaming and its impacts on students in Ontario?" This chapter will draw on the literature to investigate this question. This literature review is structured thematically by subheading, so that relevant sources can be compared directly, and for ease of reference. Qualitative and quantitative studies are mixed within these thematic subheadings. For the purpose of this literature review, the survey has been limited to works in English, principally from Western countries (as this is predominantly where literature pertaining to academic streaming has emerged) that have been written after the 1960s. Although streaming has occurred since before the 1960s, research conducted more recently has more applicability to this study, which concerns the effects of academic streaming on 21st century high school students. This study is focused on the effects of academic streaming on Ontario high school students, but because the literature is not exhaustive in this specific area, this review will survey information from the broader Canadian, North American, and European arena. It is worth acknowledging that non-Ontarian sources may not be entirely representative of the way streaming occurs in Ontario, or of an Ontario high school student's experience of streaming.

When surveying the literature on academic streaming in secondary schools, one sees that there is a stark degree of polarization on the matter. Research focused on the student experience of streaming, and the effect it has on immediate and later life, largely highlights the disadvantages to the student of being educated in a streamed system. Conversely, some (albeit

fewer) scholars maintain that academic streaming is preferable to non-streamed learning, largely because streaming helps the brightest students to be pushed further, and because it can potentially lead to more desegregated communities around schools (De Fraja and Martinez-Mora, 2014). Both of these perspectives will be investigated in this literature review, along with an examination of how two social psychological theories – self-categorization theory and labeling theory – can further promote understanding of the effects of academic streaming on students.

It is also important to make clear what is beyond the scope of this literature review. Given that this study is concerned with the effects of streaming on high school students, the literature review will focus on research that pertains to secondary education, rather than primary or postsecondary education. Since the Ontario education system designates as "open" (that is, not streamed) courses in technology, arts, health, and physical education, research into these subjects will not feature in the study. Only studies related to those subjects that are streamed in Ontario will be considered. These include, mathematics, English, science, history, geography, and French. Although this study is not focused on the effects of streaming in one particular subject, there is a preponderance of information and research into the effects of streaming in mathematics education.

2.1 Wrestling with the Language: What do the terms 'Homogenous Grouping,' 'Ability Grouping,' 'Academic Streaming,' and 'Tracking' Mean?

Ability grouping, also referred to as homogenous grouping, is a more generalized umbrella term. Homogenous grouping is a broad term referring to any kind of grouping based on aptitude (Sukhnandan and Lee, 1998, p. 1). Sukhnandan and Lee place "streaming, setting, and

within-class grouping" within this category of homogenous grouping.[3] Setting refers to the practice of placing students in a certain group based on their performance and aptitude. It is subject-specific, so a student could be in the top set for mathematics, a middle set for French, and the bottom set for geography, for example (Slavin, 1987). Within-class grouping is a more informal practice, where teachers place students within a class into various groups, either based on perceived ability in that particular area of the subject or type of work being conducted, or based on non-academic criteria, such as by gender or friendship (Sukhnandan and Lee, 1998, p. 4). For the purpose of this research project, streaming will be investigated, rather than the other two forms of homogenous grouping, as it is the practice of academic streaming in Ontario that this paper concerns.

In 1980, a literature review on streaming conducted for the Board of Education for the City of Toronto defined streaming as such: "the placement of pupils in groupings according to a criterion such as ability, achievement, interest, need or a combination of these factors for the purposes of providing instruction so that pupils can proceed toward appropriate educational goals at an appropriate rate" (Cheng, Wright, and Larter, 1980, p. 1-2). This definition is a good one as it encompasses the different reasons by which streaming occurs in Ontario schools. Thus, academic streaming is a policy of formally grouping students based on their current academic ability and, in the case of Ontario, also by their supposed academic destination, be that university, college, or the workplace. Scholars in Canada and the United Kingdom usually refer to this practice by the word "streaming," whereas scholars in the United States will often refer to it as "tracking." These two words, however, are synonymous. This study will predominantly use

[3] The opposite of homogenous grouping, as defined by Sukhnandan and Lee, is heterogeneous grouping, which refers to any type of mixed ability grouping (1998, p. 1).

the word streaming, rather than tracking, unless using a direct quote that specifically uses the latter term.

Destreaming refers to removing streaming from a course or collection of courses. A destreamed classroom contains a heterogeneous group of students who all learn the same curriculum (usually an academic rather than an applied curriculum).

2.2 Why Does Academic Streaming Matter?

Scholars have debated the efficacy and equity of academic streaming for decades. One of the reasons streaming has remained so controversial in the literature is that the way we educate our students has a dramatic impact on how and what they learn, on their academic abilities and achievements, and also on their post-high school futures. Since "education is one of the most important means by which governments attempt to equalize opportunities for economic success among citizens" (Hidalgo-Hidalgo, 2014, p. 964), it is logical that we expect and desire for Ontario students an education system that really provides equal opportunities for this success. In order to strive for excellence, we must not be afraid to scrutinize our education system and consider how to improve it. Given how contentious the concept of academic streaming is in the literature, as this chapter will explore, it is reasonable, indeed, responsible, to question whether or not it is the best educational system for Ontario. This study seeks to contribute to this questioning of academic streaming in order to investigate whether or not it is a system that works optimally for Ontario.

2.3 The Differences Between Ontario's System Versus Those of Other Canadian Provinces

There are not many studies that consider the differences between Ontario's education system vis-à-vis streaming, as compared with those of other Canadian provinces. Krahn and

Taylor's 2007 study, "'Streaming' in the 10th grade in four Canadian provinces in 2000," offers valuable insight into the differences, similarities, successes, and failures of the high school education systems in the Canadian provinces of Ontario, Saskatchewan, Alberta, and British Columbia. This study is interesting because it uses data from the Statistics Canada "Youth in Transition" Survey to analyse the impact of "social background on the course-selection choices made by 15 year-old high school students" in these four different provinces (Krahn and Taylor, 2007, p. 16). Because they were able to access data from such a large number of 15 year-old students, this study is broader reaching than many others, which typically use much smaller samples. The results are statistically significant for Ontario, and thus of note. Krahn and Taylor note that, in 2000, Ontario had the second-lowest "proportion of grade 10 students with postsecondary education options open" (see Chart 1). By open, Krahn and Taylor mean that students have the mathematics, science, and English courses necessary to be able to pursue postsecondary studies at university or college. Interestingly, female students in Ontario were more likely to have open postsecondary options (due to their course selection) than their male counterparts. The most important factor in whether a 15 year-old had open options, however, was not gender, parents having postsecondary education, or immigration status, but province of residence: "compared to young people living in Saskatchewan, those resident in Ontario, Alberta and British Columbia were much less likely to have open [postsecondary] options" (Krahn and Taylor, 2007). This is concerning: Ontario's high school students are not as likely to have the opportunity to pursue postsecondary education as their peers in other parts of Canada.

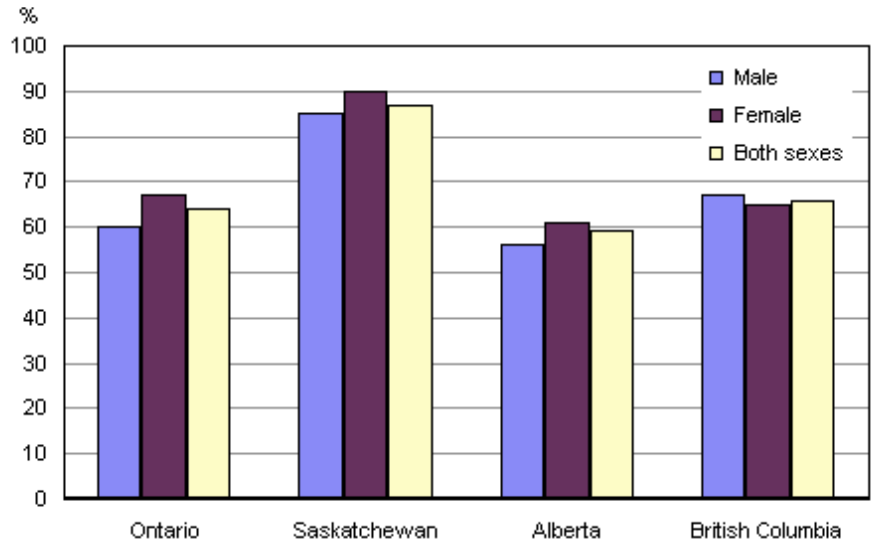

Chart 1. "Proportion of grade 10 students with postsecondary education options open, by gender and province, 2000." Source credit: Krahn, Harvey and Alison Taylor. (2007). "Streaming" in the 10th grade in four Canadian provinces in 2000. Statistics Canada Catalogue no. 81-004-XIE. *Education Matters 4*(2).

The Krahn and Taylor study shows the outcome differences between four Canadian provinces, but it does not discuss what systematic differences exist between the provinces. Further research is required to examine the explicit breakdown of the structural educational differences between these provinces, specifically as related to the degree and scope of academic streaming. As yet, this topic seems unrepresented in the literature, unfortunately.

2.4 Academic Streaming And Socioeconomic Status

The question of whether a correlation exists between academic streaming and students' socioeconomic status is one of the most broadly discussed topics in the literature on academic streaming. Scholars from around the world have discussed this matter, with many prominent academics deciding that there is a correlation between a student's socioeconomic status and the academic stream he or she ends up in. Perhaps the most seminal work from Ontario on this matter is the work of Curtis, Livingstone, and Smaller, who, in 1992, published "Stacking the Deck: The Streaming of Working-Class Kids in Ontario Schools." This study has influenced

many Canadian scholars since. This short but succinct book argues that, regarding streaming, "for most teachers as well as for students, the structures and processes are already in place; the deck has been stacked," suggesting that it is not merely ability that determines a student's stream, but something else (p. 5). Furthermore, as of 1992, the authors could not see any "systematic intervention against the ways in which schools have imposed differential treatment to students on the basis of social class, ethnicity, physical or emotional handicap and, perhaps the most insidious of all, imputed 'intelligence'" (Curtis, Livingstone, and Smaller, 1992, p. 5). More specifically, the authors particularly note the "discriminatory streaming of working-class kids" (p. 122). This study is noteworthy due to the impact it has had on other academics and on Ontario policy-makers; however, it is of limited use as it was written prior to the education system changing in 1999.

Roughly 20 years after "Stacking the Deck" was published, the authors, along with Galibuzi and San Vincente, published a follow-up: "Restacking the Deck: Streaming by class, race and gender in Ontario schools" (2014). These authors agree that the issue of streaming in Ontario high schools is very much a problem still, indeed that it "still occurs extensively" and that this disadvantages students from lower socioeconomic backgrounds in particular (p. 1). One issue with this work, however, is its desire to overhaul the structure of "economic wealth and political power that characterize our society," calling for a "more 'radical beginning' that exposes these political processes and identifies practical alternative programs and collective actions" (p. 3). This seems less feasible than simply trying to change the education system to promote fairness and equity, such as through a policy of destreaming. Nevertheless, however radical this study may seem, the sentiment behind it is commendable: there is a strong desire to promote the interests and achievements of *all* students, regardless of ability, background, or

identity. Streaming, the authors assert, merely perpetuates inequalities, rather than enables success for all.

Other scholars from Ontario agree with the "Stacking the Deck" premise that academic streaming particularly disadvantages students from poorer socioeconomic backgrounds. In their recent quantitative and qualitative study of the educational opportunities within the Toronto District School Board, Parekh, Killoran, and Crawford found that low-income students, students in special education, and students whose parents do not have a university education have significantly "less access to socially valued educational opportunities" (2011, p. 249). Indeed, the authors maintain that this is "evidence of a marketized system that is reproducing the embedded inequities present in Ontario's society as a whole – a system that apportions resources to students who mirror the identity of those who already have economic power and privilege" (Parekh, Killoran, and Crawford, 2011, p. 275). As a result of their analysis, Parekh, Killoran, and Crawford (2011) conclude that their study demonstrates that very little has changed after 40 years regarding inequities in programming opportunities within the Toronto District School Board (p. 276). Although this research focuses on Toronto's public system, and therefore cannot be exactly representative of the education system across the whole of Ontario, Toronto as Ontario's largest city contains such a significant proportion of Ontario's population, that this study is highly relevant, and fairly generalisable.

The education advocacy group, People for Education, has criticized the Ontario system of academic streaming in many of their annual reports. In their 2013 Report, People for Education stress that there is a strong tie between family income and taking applied courses. Table 1 (below) shows a breakdown of the percentage of students in applied courses as compared to family income, level of parental education, and Aboriginal status. This table shows that schools

in higher-income areas are more likely to have parents who have had university education, and less likely to have students taking applied courses. This again shows a correlation between socioeconomic status and academic streaming, along with level of parental education and academic streaming.

DEMOGRAPHIC CHARACTERISTICS OF ONTARIO SECONDARY SCHOOLS WITH THE HIGHEST AND LOWEST PERCENTAGE OF STUDENTS IN GRADE 9 APPLIED MATH			
Demographic characteristics by school (averages)	10% of schools with highest levels of applied math enrolment	Provincial average	10% of schools with lowest levels of applied math enrolment
Applied students	58%	32%	10%
Family income	$61,720	$84,440	$112,420
Households living in poverty (LICO) [106]	18%	13%	15%
Parents without high-school diploma	14%	8%	6%
Parents with university education	16%	25%	43%
Recent immigrants (arrived in Canada within 5 years)	6%	5%	7%
Immigrants	14%	14%	21%
English Language Learners	9%	4%	5%
Aboriginal students	5%	3%	1%

Table 1. Source: People for Education. (2013.) *Annual Report on Ontario's Publicly Funded Schools*, p. 28.

It is not just within Ontario or Canada that scholars are investigating the links between academic streaming and socioeconomic status. Scholars in the United States and Britain are also interested in this matter. One influential study pertaining to this correlation is that of Gamoran and Mare (1989). Using data from a large student survey, Gamoran and Mare conclude that "track assignment reinforces preexisting inequalities in achievements among students from different socioeconomic backgrounds" (1989, p. 1146). This study remains valid, and is frequently cited in contemporary articles and studies.

British-American scholar, Jo Boaler, has written prolifically on the matter of academic streaming, and consistently asserts that streaming is detrimental to all students, not just those

from lower socioeconomic strata. Boaler, who has conducted extensive research, both qualitative and quantitative, asserts that the research into streaming has consistently shown "high correlations" between social class and streaming, "with social class working as a subtle filter that results in the over-representation of working class children in low groups" (2005, p. 137; Boaler, 1997; Ball, 1981).

Like Boaler, scholars elsewhere in the world have conducted research on this matter. From Germany, to Japan, Denmark to Israel, many scholars reach similar conclusions: streaming tends to reinforce "preexisting socioeconomic inequalities in educational outcomes" (Holm, et al., 2013; Shavit and Müller, 2006; Ono, 2001; and Ayalon, 2006). The fact that this is the conclusion of researchers across the world suggests that this is not an issue exclusive to Ontario or Canada.

2.5 Academic Streaming and Student Performance

Several scholars have conducted both qualitative and quantitative research into the effects of academic streaming on student performance and students' perception of performance. Perhaps the most prominent study related to this is Oakes' study on structural inequality within schools (1985). Oakes notes that the stigma attached to students in low streams is likely to have "negative long-term consequences, including lowered self-esteem and aspirations of students and lowered teacher expectations for them" (p. 189). This, in turn, can result in a self-fulfilling prophecy, where, due to the low expectations of them, students doubt their own capability and thus perform poorly. Oakes is not the only one to have written about this. Hallinan (1994) corroborates Oakes's findings, arguing that students in higher streams tend to have higher self-confidence and more motivation to learn than their peers in lower streams. Furthermore, Hallinan notes that the quantity and quality of the instruction increases with the level of stream, and the

curriculum is “more interesting and engaging” in higher streams (1994, p. 80). Although this is, like Oakes’, an American study, when comparing this data with the Ontario curricula for academic and applied courses, we see a similarity: academic course curricula favour an approach that uses critical thinking and engages the students with higher order questions. Conversely, applied course curricula largely omit these higher order thinking questions, and consequently, also forego the obligation to foster critical thinking. This means that students in applied classes are not expected to be as engaged with the material, and may not be learning these critical thinking skills, which many academics deem essential for all students (Gini-Newman, 2014).

Other scholars, too, have found that there are issues in student performance related to academic streaming. Boaler, Wiliam, and Brown conducted a four-year longitudinal study using questionnaires, interviews, and observations of mathematics students in six British schools (2000, p. 631). Most of the results indicate that grouping students by ability leads to “curriculum polarisation,” meaning that there is a restriction of opportunity to learn for the students in the lower sets, whereas students in the top sets are “required to learn at a pace which was, for many students, incompatible with understanding” (p. 631). Surely this is not a favourable outcome: students at the top experience over-stimulation and stress; students at the bottom experience under-stimulation and boredom. Neither of these conditions is conducive to optimal learning and student success. The data collected through interviewee responses show that many students were unhappy in their streamed groups, and preferred to be in mixed ability groups instead. Boaler et al. argue that this curriculum polarisation, and the ensuing reduction of the opportunity to learn, is probably the most important reason for the poor mathematics achievement levels in Britain

(2000). Although this study focuses only on mathematics students in Britain, it does offer insight into some of the effects on performance when students are grouped by ability.[4]

Poor academic performance in school can lead to other problems. Werblow, Urick, and Duesbery (2013) note a correlation between academic streaming and dropping out of high school. Academic streaming can constrain the quality of student learning, reduce students' perception of their aptitude, and negatively impact student achievement. This longitudinal American study found that these factors related to academic streaming might contribute to students in lower streams learning less and ultimately dropping out of high school. Indeed, students in lower streams appear to be roughly 60 per cent more likely to drop out of high school than their peers in higher streams (Werblow, Urick, and Duesbery, 2013). This statistic demands further investigation, but may be less generalisable to Ontario, where students legally have to stay in school until 18 as part of 'Learning to 18' (Ungerleider, 2007, p. 5).[5] Nevertheless, it is another indictment of academic streaming.

While some scholars have investigated the effects of academic streaming on students while still in school, other scholars have conducted research into what long-term effects streaming might have. Boaler (2005) was able to follow-up with participants from her earlier study on ability grouping within two British schools. Using information from participant questionnaires, Boaler was able to show some of the long-term effects of streaming on employment and social mobility. She found that former students of the school which did not use academic streaming had far better upward social mobility by the age of 24 than former students

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[4] Research into this area was furthered by Hanushek and Wößmann's (2006) international differences-in-differences approach study, which found that streaming increases educational inequality, and that there is a tendency for early tracking to decrease average performance.

[5] Not that all students stay in school until the age of 18. Recent statistics (April 2015) indicate that 84 per cent of students in Ontario graduate within five years of starting high school (Government of Ontario, 2015).

of the other school which did use streaming (Boaler, 2005, p. 139-141). This correlates mixed ability grouping, or destreamed classes, with greater long-term student success; it also correlates streaming with reduced chances of upward social mobility.

2.6 Evidence That Academic Streaming is Beneficial

Several scholars acknowledge that "it is commonly accepted that equality of opportunity is best achieved in a mixed educational system" (Hidalgo-Hidalgo, 2014, p.964; Hanushek and Wößmann, 2006). However, Hidalgo-Hidalgo maintains that this is not always the case (2014). In her recent study, she argues that, under certain conditions, such as belonging to a family from a high socioeconomic status, "the tracking system better provides equalized opportunities with regard to lifetime income" (Hidalgo-Hidalgo, 2014, p. 965). This is in direct contrast with Boaler's findings from 2005, which indicated that streaming had a negative effect on opportunities for social mobility and opportunities to increase lifetime income.

Ansalone makes another argument in favour of academic streaming: that it allows students to progress at a pace that suits them, rather than feel that their work is constantly being compared with more able peers (2003). Similarly, advocates maintain that streaming improves individual students' self-development because supposedly less able students are less likely to experience emotional harm and reduced self-esteem resulting from comparison to smarter students (Ansalone, 2003). Other proponents assert that streaming is very beneficial to the brightest students, allowing them to perform to the best of their ability. Without academic streaming, some scholars believe that the potential of these brighter students would be wasted, as they would no longer be challenged (Fiedler, Lange, Winebrenner, 2002). Kulik and Kulik (1992) also find that streaming leads to improved academic achievement for students of high ability, most especially for gifted students.

Other scholars consider streaming to be beneficial for different reasons. De Fraja and Martínez-Mora (2014) hold that family income and a student's academic ability are positively correlated that. As a consequence, streaming

> implies that some high income households face the choice of either living in the areas where most of the other high income households live and having their child assigned to the low track, or instead living in lower income neighbourhoods where their child would be in the high track. (De Fraja and Martínez-Mora, 2014, p. 164).

As a result of this, De Fraja and Martínez-Mora asserted that, under mild conditions, streaming led to an "equilibrium with partial income desegregation," where complete income segregation would have been the only stable outcome without streaming (2014, p. 164).

While there are proponents of academic streaming, these supporters are in the minority. The wealth of research points to the disadvantages of academic streaming, or the advantages of destreaming or mixed ability grouping.

2.7 Streaming and Social Psychological Theories

2.7.1 Self-Categorization Theory

Social psychological theories may be helpful in analyzing the effects of high school academic streaming. Self-categorization theory in particular is a lens through which to investigate high school streaming and is useful because it applies directly to the process of streaming. According to self-categorisation theory, a person's identity largely consists of his or her "knowledge that he [or she] belongs to certain social groups, together with some emotional and value significance to him [or her] of the group membership" (Tajfel, 1982, p. 31). Thus, a person's self-concept consists partly of his or her social identity: "the attitudes, beliefs, and

perceptions of the groups one identifies with form part of one's own self-concept" (Oldmeadow et al, 2003, p. 140). Similarly, when Ontario students in grade 8 select their courses for the following year, they are in some ways self-categorizing. Once enrolled in their academic or applied courses, many students have a tendency to self-identify as, "I'm an academic student," or, "I'm an applied student," rather than identifying as, "I'm a student in an academic program," or, "I'm a student in an applied program." This difference is subtle but potentially crucial to the way a young person understands him- or herself, and his or her role in the school community. Using self-categorization theory to interpret the experience of a student in one stream or another helps us to understand that there will be implicit values, expectations, and beliefs attached to being in either the academic or applied stream. For example, a student in a grade 9 applied mathematics class may believe that, as "an applied student", she is not "bright enough" to be in the academic mathematics class, and thus will not do "as well" as students in the academic stream. This could lead to a reduction in academic performance among students in applied courses, simply due to a sense of academic inferiority.

2.7.2 Labeling Theory

The notion of inferiority ties in with the idea of labeling theory. Labeling theory acknowledges that labels used to describe people can influence self-identity and behaviour. Although labeling theory has traditionally been used within the context of criminality or deviancy (Tannenbaum, 1938; Matza, 1969), it is also relevant to the concept of academic streaming. The labels "academic" and "applied," each have, for better or worse, inherent connotations attached to them. "Academic" suggests intelligence and intellectuality. By having a category separate from academic, it is implicitly suggested that "applied" is not so intelligent or intellectual. In a world that prizes intelligence and educational achievement, belonging to the

stream that is not labeled "academic" can be perceived as less advantageous for the student. In some ways, placing students in academic or applied streams can create a self-fulfilling prophecy of sorts. Oakes elucidates this problem, as previously mentioned. Boaler also gives evidence for this in her interviews with former students of a setted school.[6] One young man commented that ability grouping meant that the school put

> this psychological prison around [the student] (…), it's kind of… people don't know what they can do, or where the boundaries are, unless they're told at that kind of age. It kind of just breaks all their ambition… particularly schools…where it's predominantly working-class kids whose parents don't necessarily have the ambition for them. And then if it's being reinforced in the classroom with kind of 'yes you're going to be a labourer for the whole of your life' then it means they can't break out of that box. It's quite sad that there's [sic] kids there that could potentially be very, very smart and benefit us in so many ways, but it's just kind of broken down from a young age. So that's why I dislike the set system so much – because I think it almost formally labels kids as stupid. (Nikos, ex-Amber Hill student). (Boaler, 2005, p. 141-142).

Interestingly, Nikos actually uses the word "labels," although in a slightly different manner. This unsettling quote shows the negative power ability grouping can have, and the effects of being labeled as belonging to a certain group. This may work positively for students in the academic stream, who, being labeled "academic," may strive to live up to this designator. But for students in the applied stream, living up to the connotations of their label is not so positive or productive, if it means they do not reach their potential.

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[6] Setting is a form of ability grouping. It differs from streaming in that the setting of students is usually purely based on a student's performance in tests, whereas there is an element of student and/or parent choice, and an assumption as to what next steps a student might take (with regards to university, or college, or the workplace), in streaming.

2.8 Summarization of Key Findings of the Literature Review

This chapter has consisted of an investigation into the literature related to the subject of academic streaming. Using predominately, but not exclusively, Western studies, this chapter has focused mostly on the vast body of literature that has denounced academic streaming. Reasons for criticizing streaming include the correlation between low socioeconomic status and placement in a low academic stream; the fear that streaming reinforces preexisting disparities in achievements among students from various socioeconomic situations (Gamoran and Mare, 1989); the risk of low expectations and aspirations among lower-streamed students, simply for their placement in a lower stream (Oakes, 1985); the reduction of quality of instruction common in lower-stream classes (Hallinan, 1994); the disaffection of students in streamed environments (Boaler et al., 2000); the increased risk of dropping out associated with high school streaming (Werblow et al., 2013); and the potential reduction of post-high school success, in terms of occupation and income level (Boaler, 2005).

Not all the literature on academic streaming is negative, however. Streaming can be advantageous for very bright students and those from families of a higher socioeconomic status. Furthermore, streaming under certain conditions might better provide equalized opportunities in terms of lifetime income (Hidalgo-Hidalgo, 2004), and may help to desegregate neighbourhoods surrounding schools with streaming (De Fraja & Martínez-Mora, 2014). Nevertheless, as we see from applying self-categorization theory and labeling theory to the academic streaming context, combined with the sheer volume of in-depth study on the detriments of academic streaming, it seems that scholarly support for academic streaming is far outweighed by criticism of it. That is why this study on the effects of academic streaming on Ontario high school students is

necessary: if streaming remains so controversial in the literature, it is important to investigate whether it is right for Ontario.

Chapter Three: RESEARCH METHODOLOGY

3.0 Introduction

This chapter explains the research methodology. Within this chapter is a review of the research approach and procedures, and instruments of data collection; an elaboration on the sampling and recruitment of my participants; an explanation of the data collection and analysis procedures; and an examination of the ethical considerations relevant to this study. The strengths of this methodology are considered, along with several methodological limitations of this study. This chapter concludes with a short overview of key methodological decisions, and the reasons for these, given the research purpose and questions.

3.1 Research Approach & Procedure

The research for this paper is qualitative in nature. A qualitative approach is well- suited to the topic of academic streaming as it enables one to investigate the contentions surrounding this practice, and gain direct and valuable insight into teachers' actual experiences of streaming in Ontario classrooms. While quantitative data on the topic has undoubtedly been useful in informing this paper (through secondary research), the ability to interact with current practitioners and gain from their personal experience is invaluable, and could not be achieved in the same way through quantitative means. Indeed, qualitative research is highly valuable: through "talking directly with people… and allowing them to tell the stories unencumbered by what we expect to find or what we have read in the literature" we are able to gain a more "complex, detailed understanding of the issue" (Creswell, 2013, p. 47-48). Furthermore, qualitative research "empowers individuals to share their stories" and minimizes "the power relationships that often exist between a researcher and the participants in a study" (Creswell, 2013, p. 48). By conducting semi-structured interviews with educators, this study plays a small

role in empowering these participants to tell what they consider to be the effects of academic streaming in Ontario. Moreover, qualitative research provides valuable insight that would not be so readily accessible via quantitative means: words often paint a more vibrant picture than statistics. This approach is therefore a suitable one for this study given the research purpose and questions.

3.2 Instruments of Data Collection

Through a thorough review of the literature pertaining to academic streaming (as explored in Chapter Two), I was able to investigate both qualitative and quantitative research on this topic, for example surrounding the correlation between streaming and socioeconomic status, and between streaming and student performance. In addition to the literature review, I conducted three face-to-face semi-structured interviews with educators from Ontario who are members of the Ontario College of Teachers. In a semi-structured interview, the researcher holds a formal conversation structured by a predetermined list of questions (a protocol). It differs from a structured interview in that the latter requires strict adherence to both the questions themselves and the order in which they are asked, whereas there is more flexibility in a semi-structured interview (Fylan, 2005, p. 65-66). A semi-structured interview was the best fit for this study since it meant each participant responded to the same basic set of questions, but there was flexibility for the interviewer to add or adapt follow-up questions as relevant to each participant's experience and knowledge. Although the interview questions were scripted beforehand, additional questions were asked occasionally for the sake of clarification or to draw out further details. The questions were open-ended in order to invite a more thorough response from participants.

The literature review highlighted some key themes and issues that featured in the interview questions (which can be found in Appendix B). These interviews were conducted between October and November 2015, and were centered around the teachers' experience of educating students within Ontario's system of academic steaming. The interviews took place at a location of each participant's choice, outside of school time. Each interview lasted between 45-60 minutes. These interviews were digitally recorded on an iPhone and then transcribed verbatim. The data was then coded in order to draw out themes and issues that featured prominently as relevant to the research question and sub-questions. The findings from these interviews can be found in Chapter Four.

3.3 Participants

3.3.1 Sampling Criteria

When selecting participants for this study, there were several criteria. First, the participants had to be educators. Although it would have been interesting to interview policy analysts, education lobbyists, or politicians on their experience of and thoughts about academic streaming, this study is specifically concerned with what educators have to say on the matter. This is because educators are the people who must work directly within the streaming system and are able to see, on a daily basis, the effects of streaming on the students they teach and on themselves as teachers.

Another criterion with regards to the selection of participants was that they had to teach in Ontario, since this study focuses specifically on the effects of academic streaming on Ontario students and teachers.

A third criterion was that participants had to have a minimum of five years of teaching experience. In order to see the effects of streaming on students, teachers need time to get to know their pupils and the system in which they teach. More time in the profession also enables them to gain insight into the factors at play when a student chooses which course stream to take, and how that affects students' options for future course selection, and postsecondary education. More teaching experience also helps to ensure that participants understand the streaming system better, and will be able to draw on substantial experience.

3.3.2 Sampling procedures

The sampling procedure used in this study was convenience sampling, since it was the easiest and most expeditious recruitment method. Two participants were recruited via professors at the Ontario Institute for Studies in Education, and interviews were set up by email correspondence. The third participant was a friend of a friend, who agreed in-person to meet for an interview. All participants knew that they were under no obligation at all to take part in the research, and could opt-out if they so chose.

3.3.3 Participant Biographies

Between them, the three participants have over 30 years of teaching experience. Participants in this study are known by pseudonyms, in order to protect their anonymity. Below is a short biography of each participant.

Jessica is a high school teacher in her late 20s who has been teaching English, History, and Careers for the last five years. She currently teaches in a public school in Southwestern Ontario, about 90 minutes from Toronto. Since she lives quite far away, her interview was conducted over Skype.

Sheila began teaching in 2001. She has taught French and various social studies courses in public and private schools across the Greater Toronto Area. She is currently teaching in a school that is part of a Toronto District School Board destreaming pilot project, where the majority of grade 9 classes are destreamed, meaning that all students learn the academic curriculum.

Beth has been a high school teacher since 2003. She has taught English and Physical Education in public schools in Toronto, including in alternative schools, and is now in guidance.

3.4 Data Collection and Analysis

After transcribing the interviews verbatim I read through them several times to draw out key themes and important quotes. Coding was the next step. As Creswell states, coding "represents the heart of qualitative data analysis" since this is the process that makes sense of the data gathered, sorting into and labeling different categories and themes (2013, p. 184). After collating an initial list of over 70 codes (a mixture of in vivo and descriptive), I distilled these down to just over 30, and then grouped similar codes together. Five major themes emerged. Using five different coloured highlighters, I went through each transcript and highlighted sections that fit into each theme, thereby making it easier to identify important ideas and quotes. For example, pink denoted negative effects (on students or teachers) of academic streaming; yellow designated suggested improvements to the education system, usually related to destreaming. Using pen, I underlined sections that would make important quotes.

Through this process I was able to synthesize themes and identify divergence between participants. This coding process was invaluable to drawing out key themes and findings, in order to answer the research questions of this study.

3.5 Ethical Review Procedures

Throughout the research process, this study remained consistent with the ethical review approval procedures for the Master of Teaching program. When asking participants if they would participate in this study, I disclosed fully the details of this research project, including how the data would be used (as research for this study). Participants knew that there were no known risks to participation in this study. Once the participants agreed to participate, they signed a letter of informed consent (Appendix A), in which they formally acknowledged that they were participating willingly in the research, without compensation. This consent letter contained an overview of the study, indicated the expectations of participation, and attended to the ethical implications of participation. The participants were aware that they had the right to withdraw from the study at any point, even after the interviews had been transcribed. In order to protect the confidentiality of the participants I have used pseudonyms and have removed markers that would easily identify the participants. The data collected in the form of audio recordings of and notes about the interview are stored on a password-protected device, and will be destroyed securely no later than five years from publication. Lastly, I debriefed participants and answered any questions they had about the interview, the data, or the study.

3.6 Methodological Limitations and Strengths

Unfortunately, there are limitations to this study. Not only is the number of interview questions limited, but the sample size is also limited to three educators, meaning that, although this study can enlighten the topic of academic streaming, it lacks generalizability: the findings cannot be applied to all teachers' experiences and understandings of academic streaming in Ontario. However, most researchers using qualitative methods typically select fewer than five cases (Creswell, 2013, p. 101).

Given the scope of the research and the ethical parameters that have been approved by the University of Toronto, this study only involves interviews with teachers, and not with students, former students, parents, policymakers, lobbyists, and other parties that are concerned with academic streaming. Since the interview method relies on personal reporting, this study cannot be said to be fully reliable, since it is possible that participants could misremember their experiences, exaggerate or deemphasize experience, or miss things out altogether. Regrettably, there is no male voice among participants, simply due to the small sample size, and the prevalence of female educators in Ontario.

Despite these limitations, there are methodological strengths to this study. Qualitative research, in the form of interviewing educators, elicited more in-depth responses than possible from a survey. Rather than writing things down on a form or typing into an impersonal online survey, participants responded directly, face-to-face. This helped to put them at ease and encouraged them to be forthright and open in their answers. Furthermore, the interview format allowed teachers to speak to what is important to them concerning academic streaming, and to give specific examples of their experiences with this system. Consequently, the interview method helped to validate the experience and voice of educators, and hopefully aided participants to make meaning from their personal experience (Creswell, 2013, p. 48). Another strength of the semi-structured interview method was its flexibility: I was able to ask follow-up questions for clarification at the time when necessary, which would not have been possible with a survey.

3.7 Conclusion

This chapter contained an analysis of the decision to conduct qualitative research in the form of semi-structured interviews and a literature review. The chapter discussed how participants were recruited, and also the methods by which the interview data was coded. In spite

of some minor limitations, this form of qualitative research serves this project very well, and helped to gain insight into some of the effects of streaming, while engaging directly with practitioners in the field. The following chapter reports on the research findings gained from this methodology.

Chapter Four: FINDINGS

4.0 Introduction

This chapter presents the findings from this research project regarding academic streaming. Using data from interviews with three experienced educators, this chapter investigates this main research question: How can teachers' reflections of their professional experiences deepen our understanding of academic streaming and its impacts on students in Ontario?

Under three separate sections, this chapter will address the following research sub-questions:

a) What factors, other than academic ability, determine a student's stream?
b) What are the effects of academic streaming?
c) How can the education system, particularly vis-à-vis streaming, be improved to better serve students and teachers?

The first section of this chapter concerns the following factors (other than academic ability) that influence a student's stream: work habits and learning skills; socioeconomic status; race; and level of parental advocacy. The second section concerns two main effects of academic streaming: first, how streaming segregates students, and the subsequent impacts that this has; second, how streaming puts students on a trajectory that can have negative implications for students while in high school and also post-graduation. The third and final section contains several recommendations for how to improve the system, including a call from teachers to implement destreaming, since this will help to breakdown barriers between students, and will help to level the playing field a little more with regards to student opportunities and successes. To increase the likelihood of destreaming being successful, teachers recommended that several aspects of Ontario's education system should change. For instance, teachers should take additional

professional development regarding differentiating instruction and seeing potential in every student. Additionally, increasing teacher supports and decreasing class size would be beneficial. Lastly, it would be constructive to encourage more dialogue and collaboration between teachers, in order to improve both teaching and learning.

The participants, Jessica, Beth, and Sheila, have each been teaching for between five to 12 years. Jessica currently teaches at a public school about 90 minutes from Toronto; Beth has taught in the Toronto District School Board (TDSB), and is now in an alternative school; and Sheila has taught in both private and TDSB schools, and is currently participating in a TDSB destreaming pilot project at her school.

4.1 What Factors, Other Than Academic Ability, Determine a Student's Stream?

Since students are being streamed based on factors other than ability and/or desired career trajectory, the current education system has not eliminated educational inequity with regards to streaming. This is particularly problematic when students are streamed based on factors that are beyond their control, such as their socioeconomic status, their race, or the degree to which their parent/s is/are involved in their education. If a student's academic career is being determined by factors such as these, we need to consider how we can change the current system of streaming to eliminate these race- and class-based factors, or else we will simply perpetuate existing socioeconomic patterns and norms, rather than breaking cycles of poverty and/or racism. Indeed, one participant, Jessica, claimed that "there's really not that much difference" in terms of skill level between the streams, suggesting that other factors must be at play when a student selects his or her courses. Four major themes emerged from the data with regards to important factors (other than ability) that determine a student's academic stream: work habits and learning skills; socioeconomic status; race; and level of parental advocacy.

4.1.1 Work Habits and Learning Skills

It seems that a student's work habits and learning skills can be a major contributing factor in terms of which academic stream he or she ends up in. Each participant noted a correlation between students with strong work habits and learning skills and placement in academic classes. Conversely, students who were not perceived to have "strong" work skills were, in the eyes of these teachers, more likely to be in applied classes. Indeed, Beth stated that the majority of students have very similar academic ability, but are separated into stream based on their "learning styles." Similarly, Sheila noticed that between the streams there is "definitely a separation of two types of students," as opposed to a separation of differing abilities. Sheila also noticed that students perceived by teachers to be "not very good students" tend to be in the applied stream.

Students who struggle to concentrate for a 75-minute period, or who find it difficult to be seated for long stretches of time, are perceived by some teachers to be "students who don't do school well," and, as a result, may be recommended to take applied classes. However, a student's ability to sit still and concentrate for long stretches of time is not necessarily a comment on that student's intelligence or necessarily his or her desire to learn. Consequently, Jessica stated that the current system of streaming only benefits students "for whom school comes naturally," since these students generally end up in academic classes with high teacher expectations. Jessica noted more than once that streaming does not work well for students who "don't do school well," or, in other words, those who do not have the standard "work habits and learning skills" that teachers expect students to have.

Jessica was uncomfortable helping students select their stream. She stated that she does not "feel like [ability] is something [she] should comment on," and is "more comfortable" basing

her recommendations for which stream a student should take on his or her "work habits and learning skills." This is further evidence that streaming can be based on factors other than ability.

4.1.2 Socioeconomic Status

A determinant of streaming, more troubling than a student's work habits and learning skills, is that of a student's socioeconomic status. Although students often have some control over their own habits and skills, they have no control over their socioeconomic status. In an ideal system, the wealth of a student's family should be irrelevant to the stream the student is in. In practice, the evidence suggests that socioeconomics do influence streaming, with students from lower socioeconomic backgrounds being more likely to be in applied classes. The findings of this study converge with those of instrumental studies such as Curtis, Livingstone, and Smaller's seminal work, *Stacking the Deck: The Streaming of Working-Class Kids in Ontario Schools* (1992), and its recent update, *Restacking the Deck: Streaming by Class, Race and Gender in Ontario Schools* (2014). Other scholars such as Parekh, Killoran, and Crawford have also made the connection between socioeconomic status and academic stream (2011). Indeed, advocacy group People for Education has pointed to this correlation repeatedly (2013, 2014, 2015). As with work habits and learning skills, a student's socioeconomic status does not by default correlate with his or her ability, making the correlation between applied stream and lower socioeconomic status rather concerning.

Beth and Jessica were very aware of ties between lower socioeconomic status and placement in the applied stream. Beth spoke with no hesitation when asked if she had noticed any correlation between academic stream and socioeconomic status: "Yes. Yes. I think that's the biggest. Over and above skill level." This is rather concerning, since a student's socioeconomic status should be irrelevant to his or her stream.

Jessica also saw a direct correlation between a students' socioeconomic status and their academic stream. One particularly interesting part of the interview was when Jessica subconsciously conflated applied with lower socioeconomic status. She said: "low-income families get less recognition at my school, but they're a pretty significant presence. I think it's just the academics that get a bit more attention." Without necessarily noticing, it seems Jessica switched her reference point from socioeconomics ("low-income families") to academic stream ("academics"), implying that lower-income families are associated with the applied stream, whereas higher-income families are associated with the academic stream. What clearly troubled Jessica, understandably, was her perception that the school pays more attention and gives more recognition to students who are in the academic stream and from higher socioeconomic status families. This would be a clear educational inequity.

Both Sheila and Jessica noticed a connection between academic stream and students whose parents hold a university or college degree. These students have the dual benefit of very open choices, since, as Jessica noted, university or college-educated parents are likely to introduce their children to wide options beyond a high school diploma, such as college or university, and the subsequent opportunities beyond postsecondary education. More explicitly, students in the academic stream have the option available to them to go onto university, which is not an option readily available to students who do not take academic courses. As Jessica stated, "students whose parents are working class" are more likely to be introduced by their parents to "working class jobs," rather than postsecondary education, which means that these students have fewer options available to them once they graduate. Not that postsecondary education is a necessity for all students, but all students should at least have the option of pursuing further education if they later decide to.

Another connection of note between socioeconomic status and academic stream pertains to English language learners. All three teachers noticed that English language learners tend to be in the applied stream unless they come from a higher socioeconomic status family, where the parents are strong advocates for their child's education. Jessica shared that it is "rare to see an ELL student in the academic classes," though in her school there are not many English language learners. ELL students in academic classes "tend to be students… whose parents are quite wealthy." A student's ability and career trajectory should not be assumed based on his or her immediate mastery of the English language. Clearly, then, socioeconomic status is playing more of a role than it should in Ontario's streaming system.

4.1.3 Race

Like socioeconomic status, race is another factor that should not have any influence on the academic stream a student takes within an equitable education system. Unfortunately, it seems that race does play a role in determining which academic stream a student takes. Jessica's school has a predominantly white student body, but there is a significant Aboriginal population, since the school is near to the Six Nations reservation. When asked about the relationship between race and academic stream, Jessica shared that most non-white students "are pretty mixed in as far as academic and applied," with the conspicuous exception being Aboriginal students. Jessica noted the following: "our Six Nations students…tend to be in the applied or locally developed classes. They also tend to be students who repeat courses – and it's pretty rare to find a Native student in an academic class." This is troubling indeed.

Several factors contribute to the correlation between Aboriginal students and the applied stream. First, Jessica noted that coming from a school on the reservation that is more culturally responsive in its pedagogy means that Aboriginal students in this off-reserve high school can

experience a degree of culture shock, which is rather unsettling and might affect their academic performance. A second contributing factor could be that, as Jessica stated, "our materials don't always reflect them." This is problematic, since it may further increase Aboriginal students' sense of culture shock and discomfort in the school environment, which, unsurprisingly, has negative effects on performance. This seems to be more a fault of the curriculum and/or teachers' lack of culturally responsive pedagogy, than a direct fault with the streaming system. Perhaps tied to this is a fourth issue: Jessica noted a lack of role models for Aboriginal students; she lamented that it is not often that "they're able to see Aboriginal students who are successful and go on and return to the res and then occupy these roles [as role models]." It seems that, at Jessica's school at least, the streaming selection process, compounded by other factors, is not working well for Aboriginal students.

Beth also noticed that streaming seems to happen based on – or at least influenced by – a student's race. Beth raised the topic of race when discussing whether Ontario's current system of streaming is an improvement over the pre-1999 one. She acknowledged that very few teachers set out to enact racist agendas when it comes to streaming students, but, in practice, academic streaming is not colour-blind:

> nobody wants students to be streamed according to their behaviour or skin colour or whatever. But the reality is, that's what happens. When you're…in a very diverse school with two classes of grade 10 applied and two of grade 10 [academic] English you can completely see. Like, why do my applied classes have a lot of black students and my academic classes don't? And it's not a skills thing! I mean, in some cases it is, but not in every case at all. So, yeah, it was crazy.

This converges with what Gay discussed in her studies of the overrepresentation of black students in special education (2002). Gay found that many teachers generally perceive black

students as having lower intelligence, lower academic abilities, and more disciplinary problems than students of European or Asian descent. Similarly, Clandfield et al also found strong evidence that Ontario students were being streamed based on race (2014).

To further emphasize her assertion that streaming is affected by race, Beth told me a story of a young woman attending her school. This student had some behavioural issues at previous schools, and, until coming to Beth's school, had taken entirely applied courses throughout high school. Beth shared that her student "is so intensely intelligent, to the point where you're speaking to her and it's obvious that something has been horribly missed along the way in terms of her abilities; like, she's off the charts in how she's interacting with you." Unfortunately, both socioeconomics and race seem to have played a part in this student's stream. As Beth stated: "it's almost like the teacher – the teachers – don't have that part of their brain wired to say, 'maybe she's gifted.' They're all saying, 'poor, black.'" In other words, teachers, whose vision was skewed by (subconscious or otherwise) negative associations regarding race and socioeconomic status, saw this student's history of "acting out" as simply negative, and relegated her to the applied stream, where she continued to act out. What this student needed instead was to be tested for the gifted program and/or given more academic stimulation and encouragement. Ontario's streaming system prevented this student from flourishing, since it can stream students based on factors that should be irrelevant.

Interestingly, Sheila did not share Jessica and Beth's experiences of a correlation between race and academic stream. Sheila expressed the following: "in my experience, I haven't really seen a divide from race, it's more – it goes back to the expectations of the family and how involved the parents are in encouraging their child." Since Sheila teaches at a very ethnically diverse school, it is perhaps not surprising that she did not notice a divide based on race, since

there are so many different races represented in the school. Her connection between stream and family expectations and parental encouragement is significant, however, and is addressed in the following section.

4.1.4 Level of Parental Advocacy

Parental advocacy emerged as a theme in each interview, suggesting that it is a major factor in the streaming process. As previously mentioned, it is unfair that Ontario's current streaming system allows for a student's stream to be influenced by situational factors beyond his/her control, such as the degree to which that student has an advocate promoting and encouraging his or her educational success.

Both Sheila and Jessica noticed that it tended to be parents of students in academic classes who attended parent-teacher interviews, whereas far fewer parents of students in applied classes came. Attendance at parent-teacher interviews can be viewed from two angles. First, one can consider the correlation between level of parental advocacy and academic stream, suggesting that if parents have already advocated for their child to be in the academic stream, they are more likely to attend opportunities to further support their child's education. A different way to look at parental attendance to events like parent-teacher interviews is one based on socioeconomic status. As Jessica noted, it can be harder to "get a hold of" parents of students in applied classes, in part because many of these parents are "working night shifts and odd hours." Since socioeconomics can play a significant role in deciding a student's stream, it is perhaps unsurprising that parents of students in applied classes are more likely to be working shift jobs outside of the traditional hours of 9:00am – 5:00pm, and thus are less able to attend school events such as parent-teacher interviews.

Sheila confirmed this when she identified "a divide between kids who come from families who are really advocating on their behalf, and kids who come from families where they just don't have time or the energy or the knowhow to advocate for their child." For example, if parents have to work during advocating opportunities (such as parent-teacher interviews), then they have less access to involvement in their child's educational promotion.

Jessica and Beth agreed that students who might not necessarily have been placed in academic classes based on ability tended to be there as a result of strong parental advocacy. Beth, for example, contended that "you could tell that the kids who were in academic classes but didn't have the skills were [there due to] all kinds of expectations and advocacy [from] families." Similarly, Jessica mentioned that students in her academic classes with Individual Education Plans (IEPs) generally "have very, very strong parent advocates – which is awesome for them. I wish every kid had that, right?" Indeed, it is unfair that students with IEPs seem to need a strong advocate in order to take academic classes. In Beth's words, not every student has a "force mom and dad" who will "come in…guns a blazing," saying, "'you're not putting my kid in applied!'" Evidently there are flaws in the system if it requires persistent parental involvement to ensure that a student is given full academic opportunities.

Similarly, English language learners often need strong parental advocates in order to take academic classes. Beth commended families who make "real efforts to understand the system," since it is these parents who "really make sure that even though… English [is not] their first language, or they don't necessarily speak it at home, they're still going to ensure that [their child] gets into academic," since they know that this is the stream that will give their child the most options moving forward. Similarly, Jessica recognized that English language learners in the academic stream "tend to be students with a lot of parental involvement." Once again, a student's

stream seems to be based more on factors such as how vocal a parent is than on the abilities of the student.

4.1.5 Section Summary: What Factors, Other Than Academic Ability, Determine a Student's Stream?

Based on these three teachers' observations, which are largely confirmed in the literature, it seems that Ontario's current system of academic streaming appears to be based not only on student ability but also on factors that should be irrelevant in the classroom. Factors such as socioeconomic status, race, and level of parental advocacy are beyond a students' control and have no impact on their potential ability, and thus should have no impact on the stream they are in. Socioeconomic status seems to play a role in streaming not only due to varying teacher and parent expectations of students, but also due to differing levels of parental involvement, based on how much time or resources parents might have to support their child's education. While not all teachers have experienced students being streamed based on race, Jessica and Beth's observations nonetheless speak to a flaw in the system regarding racialized streaming. Finally, the current system of academic streaming is made more concerning still by the fact that it can require vocal parental advocacy in order to ensure placement in the academic stream.

4.2 What are the Effects of Academic Streaming?

Since the literature strongly points to several negative effects of academic streaming, it is not surprising that this research also highlights some problems with Ontario's system. This section will investigate how streaming segregates students and also how streaming puts students on a certain trajectory, which, in the case of students taking applied classes, can "clos[e] a lot of doors."

4.2.1 Segregation of Students and Differing Teacher Expectations Based on Stream

As the previous section demonstrated, work habits, socioeconomic status, race, and parental advocacy all impact which academic stream a student takes (Clandfield et al., 2014). As a result, academic and applied streams are, in some cases, tangibly divided based on these factors. As Jessica noted, in her school there is some animosity between the academic and applied streams because of this segregation. Additionally, teachers often have different expectations of students based on academic stream. Since teachers usually have higher expectations for the academic stream, students in academic classes tend to benefit, since they often receive more support and may therefore believe they have more potential. A final issue regarding student segregation pertains to the difference in student support between the streams: students in applied classes sometimes receive less support than their peers in academic classes, making it even more difficult for students in the former stream to succeed. Each of these issues will be explored in this section.

When Jessica tried integrating her academic and applied English classes for a lesson intended to, "try and break down some of those social barriers," she experienced some backlash from her students in the applied class. Jessica remembered some of the students saying, "'I hate those kids; I hate those rich, spoiled kids; those kids get everything they want and they don't know what it's like.'" These strong words shocked Jessica; she was "surprised to hear how much the students really, really feel [the socioeconomic difference between the streams]." Clearly it is not just researchers who have noticed the extent to which external factors such as socioeconomic status impact which stream a student is in (Curtis et al, 1992; Clandfield et al, 2014; Gamoran and Mare, 1989; Parekh, 2011). This divide creates barriers that can lead to conflict within the

school. Furthermore, it serves to reinforce preexisting inequalities between students from different socioeconomic situations (Gamoran and Mare; 1989).

Unfortunately, teachers perpetuate the divide between the academic and applied streams. Each participant commented that teachers tend to have different expectations based on which stream they are teaching. This ties into research conducted by Boaler, Wiliam, and Brown on the idea of "curriculum polarisation," where expectations are very high for the academic stream and rather low for the applied stream (2000, p. 631).[7] Beth acknowledged that most teachers "feel that the bar is lower" for applied classes. She shared that the teachers in her school "really want the students to succeed [in the short term], so, I think, relatively speaking, the expectations are pretty low [for students in applied classes]." Ironically, this lowering of the bar simply means that students will likely not strive as much as they are capable of, so, although students may feel like they are achieving, they are not reaching their full potential, meaning that lowering expectations probably is not serving the best interests of these students in the long run. Similarly, Jessica noted that "some students have expressed that teachers teach this way to applied students and that way to academic students," demonstrating again that both teachers and students are aware of a segregation between academic and applied streams with regard to teacher expectations.

Jessica lamented that often teachers perceive students in the applied stream to be less capable of critical thinking and challenging activities than their academic contemporaries. She said: "unfortunately what happens is we tend to think that our academic students can handle critical thinking and creative projects, but for the applied students, because they need a more

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[7] This can work in favour of students in academic classes, who may see their teacher's higher expectations and consequently have higher perceptions of their own capacities, and thus push themselves further and achieve more.

straightforward kind of teaching, that means chapter questions and tests." If students in the applied stream are given less stimulating and less interesting work to do, it is unsurprising if they are less engaged with the subject, and consequently perform to a lower standard. Although Jessica commented on the fact that the applied curriculum has fewer critical thinking prompts than its academic counterpart[8], she believes that "it's more… the way that it's taken up by teachers, unfortunately." Regrettably, these different teaching methods segregate further students in the two streams. This again speaks to the existence of "curriculum polarisation" (Boaler, Wiliam, and Brown, 2000, p. 631).

Beth recognized that teachers sometimes differentiate between the streams by teaching the same content, but with lower expectations in the applied stream. For example, a teacher might read the same book with both classes, but give more assignments to the academic stream. Beth's comment on this example shows her disapproval of this method: "Like, mmm, no. That's wrong. That's the kind of thing that is upsetting." This adds evidence to Hallinan's research, which states that the quality and quantity of teaching increases in higher streams (1994). Perhaps one reason why this method is possible is that there tends to be far less oversight of applied courses. Beth mentioned that with academic courses she had taught, everyone had to read the same book and take the same exams, but with applied courses, she could "literally do whatever [she] wanted." This reduction in accountability and lack of shared expectations gives teachers a lot of freedom, but also means that some teachers will simply lower their expectations for the applied stream. Thankfully, Beth used this freedom to try out some creative literature ideas with her applied classes, such as book circles.

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[8] Sheila also noted that the curriculum for applied classes is not ideal: "the curriculum…for the applied classes wasn't really working; it wasn't really helping them."

4.2.2 Self-Categorization and Labeling Theories

Partly because students in applied classes often face "lowered teacher expectations for them," (Oakes, 1985, p.189) and also because of the stigma attached to the label "applied," these students can be negatively affected in terms of their self-confidence and sense of self-efficacy. Jessica experienced this when her students told her, "we're not like those other kids. They're good at school." She truly felt that there was "some sense of identity wrapped up in those labels [of 'applied' and 'academic']." Werblow, Urick, and Duesbery (2013) also noticed that academic streaming can decrease students' perceptions of their own aptitude, thus negatively affecting their academic achievement. This fits with both self-categorization theory and labeling theory.

In relation to self-categorization theory, we see the idea of the group mentality: the students use the words "we" to refer to themselves, in opposition to "they," meaning the students in the academic stream. This reinforces students' sense of belonging to the stream that they are in. This identity could affect their self-concept (Tajfel, 1982) and self-efficacy. Beth really noticed this:

> I think that kids who are in applied feel limited, in terms of what they can achieve because they don't think of university as being an option…it can lower the bar, sort of unconsciously for kids who are in [applied]…they just don't see themselves as being as capable as the academic students.

Thus, if students in an applied class have low expectations of the capability of applied students generally, they will likely consider themselves limited in their potential academic success, and consequently perform below their true capacity. In line with labeling theory, students often see the labels of "applied" and "academic" as having inherent connotations of lower or higher ability. Consequently, they will likely live into these labels, pushing themselves further if they

believe in their "academic" label, or limiting themselves (through the perception that they cannot achieve as much) if they believe in their "applied" label. In the latter case, this can create a self-fulfilling prophesy in that students can get trapped in a "psychological prison," where their ambition is reduced (Boaler, 2005, p. 141). Jessica felt this to be the case with her applied classes: "a lot of the time they're surprised when I articulate high expectations for them. Or they'll say, 'we can't do that; we're just applied kids.'" This idea that they are *just* applied kids is very sad: we can see in their language how they have a low sense of self-efficacy, and also low self-confidence. This would be academically limiting and damaging. When asked, Jessica stated that she does think that labels "have big implications for the way that students react… and internalize those things, especially over the years." Clearly, then, segregating students with labels can be rather damaging to student self-confidence and student success, both in the short and long term.[9]

4.2.3 "Puts Them on a Path That Closes a Lot of Doors"

Segregating students is problematic not only for the reasons explored above, but also due to the effects that it has on opportunities available to students while in high school. Perhaps more troubling still is that there is overwhelming evidence that academic streaming can significantly restrict a student's pathway not only while in high school, but also following graduation. Students who take the applied stream have far fewer options available to them than their peers in the academic stream. In short, streaming students into the applied stream puts students "on a pathway…that closes a lot of doors."

Reduction of Opportunities While in High School

[9] This study uses people-first phrases such as "students in the applied stream" or "students in academic classes," so as to try and break some of the unhelpful psychological effects that come from attaching the label of "applied" or "academic" directly to the student (through "applied student" or "academic student").

Both Sheila and Jessica spoke about educational opportunities in high school. Academic streaming has a significant impact on students' likelihood and ability to take subjects that are no longer mandatory after grade 9. As a French teacher, Sheila lamented that “usually applied students are not encouraged to continue with French beyond grade 9, so that is detrimental to them in terms of [not] having those opportunities to learn a language that really could give them many more opportunities in life.” Since Sheila's school almost never offers grade 10 applied French, students who take grade 9 applied French are very unlikely to feel able to continue studying the subject, because it is too big a leap for them to go from grade 9 applied to grade 10 academic. It is unfortunate that, in terms of subjects like French, students in the applied stream can face serious impediments to their continuation with certain subjects.

Jessica also expressed sadness at the reduction of opportunities in high school that arise as a result of streaming. Because of the tendency for streaming to be segregated based on socioeconomic status, Jessica feels that she cannot offer the same opportunities to both streams: “I’ve planned trips for academic classes, and I can’t plan them for applied students, because I know that they don’t have the money... that has an impact on the richness of their educational experiences." Not only is this an example of how streaming limits students' opportunities in high school, it also demonstrates the further segregation of students based on socioeconomic status, as this kind of differentiation creates a stark and noticeable contrast between the two streams.

Restriction of Postsecondary Options in Applied Stream

More significant than the reduction of student opportunities while in high school is the fact that streaming restricts certain students' options after graduation. Students who take applied courses in high school have fewer postsecondary options available to them than their peers who

take academic courses. Since it is necessary to take academic courses in grades 9 and 10 in order to take university courses in grades 11 and 12, and since these university courses are required in order to apply for university, students who take applied courses in their first two years of high school are streamed away from university; they will not have the option to apply to university unless they take a bridging program, or wait until they are a mature student. For students who take applied courses in grades 9 and 10 and then workplace courses in grades 11 and 12, university and college are even more difficult to grasp, should a student decide they want to switch career trajectories.

Both Beth and Jessica[10] expressed concern about helping students choose their courses and deciding which stream to select. Since these decisions have "such a big impact" on a student's future, Jessica feels "guilty… telling anyone what to do" with regards to selecting a stream. Since "it can be really difficult to back-track" once a student enters the applied stream, Jessica hesitates before advising students which stream to take. She sees that the decisions students make in grades 9 and 10 put "them on a path that closes a lot of doors at a really young age… that's going to mold…the way they socialize with others, their social groups, their learning skills, and sometimes their direct implications [regarding high school and postsecondary options], too." Indeed, Werblow, Urick, and Duesbery found a correlation between a student's placement in a lower stream and being more likely to drop out of high school, thus curtailing further any hopes of postsecondary education (2013).

Similarly, Beth was concerned about "making sure [students] understand the consequences" of their course selection. She argued that "students need to understand better the

[10] Since Sheila and her school are taking part in a destreaming pilot project, she no longer has applied classes; everyone is in academic together. Thus, we discussed the benefits and drawbacks of destreaming in far greater depth than the issues that result from streaming. Sheila's voice returns in the third major section of this chapter.

consequences of being in a certain stream," so that they can make informed choices that will not leave them disappointed later. In her teaching career she has seen "lots of kids whose options are limited when they're looking at [postsecondary education]." For example, she shared the following:

> I'll run into kids who have done all applied all the time, and are still telling me in grade 12 that they want to be a doctor. And that's not impossible but they still hadn't had the conversation about what their limitations are now, or what kind of route they're going to have to take to circumvent those limitations.

It is sad that so many students are unaware of the limiting of their future choices when they choose the applied stream. However, Beth believes that "often you have parents who – because of whatever barriers they might have, language or socioeconomic or whatever – can't grasp the consequences of making the decision [between the applied and academic stream]." If students (and parents) are unable to make truly informed decisions about academic stream selection, this points to an inherent flaw in the system.

Students can feel trapped by the academic stream they are in. For example, Jessica shared a story of a young man who "had been placed in locally developed and then onto workplace" courses throughout high school. She felt that he had been streamed incorrectly, since his "comprehension skills, his re-tellability, and his ability to express ideas were pretty solid." Since he struggled with "the actual mechanics of writing" and also with using computers, he was unable to get his "good ideas" onto paper. Jessica felt that, had he had a scribe, this student would have been more successful. Jessica "kept seeing all of these skills; and his dream – his goal – was to… go into welding, but he had gone into workplace courses, so he wasn't eligible to apply to college." It seems that he was never fully informed of how his stream would affect his

options after high school. Jessica and the student felt that "the school had always put him on this pathway, and he wanted to go through these other doors." Thus, "the school had closed doors that he really badly wanted to keep open." This is just one of several stories of students who were let down by the academic streaming system.

Interestingly, Jessica used the term "pathway" five times in her interview, often within the phrase "put on a pathway." This term is a helpful one for describing what streaming does to students: in the case of the applied stream, it narrows pathways and reduces options. In their 2007 study, Krahn and Taylor found that Ontario had the second-lowest "proportion of grade 10 students with postsecondary options open," meaning that many students did not have the courses required in order to be able to apply for university or college. University and college are not for everyone, nor should this be the expectation. A university degree or a college diploma is not the only valid or valuable option after high school. However, students should have *real* choice – informed and consenting choice – with regards to their postsecondary options, rather than a restriction of choice that comes with streaming at such a young age.

Both Beth and Jessica expressed strong dislike at how early students are streamed in Ontario; Sheila was also unsure about whether 13 was a good age to start streaming. Beth and Jessica shared the opinion that this was too young for students to really know what their options were and the impacts of their choices. Beth expressed that she "never liked the career emphasis starting super early," because she thinks "it paralyses kids." She wonders how students could know "what they want to do," and does not understand why it is even necessary to be thinking about careers at such a young age. She worried that students were not selecting their grade 9 courses "based on the result [they] want in four years," again highlighting the fact that 13 is very young to be deciding whether or not to keep open the option of going to university. Similarly,

Jessica did not think that students were "well-educated or well-versed about what it means for them to be choosing applied versus academic at the age of 13." Since we know that students' postsecondary options are restricted if they choose the applied stream, it is a shame to make students decide about this at such an early age, when they may well want to change their mind in the ensuing four years of high school.

It is significant that, when asked to give an example of a student for whom streaming was detrimental, all three educators answered without any hesitation whatsoever. Each of them said that they could draw from many examples. Jessica's words were similar to the other two responses: "Yep, oh for sure. I could give a lot!" In contrast to this, when asked for an example of a student for whom streaming was beneficial, all three paused and said at least one or two filler words such as "um" or "uh" before attempting a response. This suggests that it was easy for them to think of cases where streaming had disadvantaged students, but much harder for them to think of students who had benefited from streaming. After some thought, Jessica gave me an example of a student who had moved from the academic stream to the applied, and was happier with the slower pace. Sheila and Beth both declared that they could think of numerous students who benefited from being in the academic stream rather than the applied stream. Neither of these two educators mentioned an example of a student in the applied stream having benefited from being streamed. It seems that each of these teachers are well aware of the negative effects of academic streaming. As is the case with the literature on streaming, data collected for this study shows an overwhelming preponderance of the negative – rather than positive – effects of streaming.

4.2.4 Section Summary: What are the Effects of Academic Streaming?

There are two main effects that arise as a result of academic streaming: segregation of students based on external factors and differing expectations, and the placing of students "on a pathway…that closes a lot of doors." As a result of academic streaming there is noticeable segregation between students, often along the lines of socioeconomic status and/or race. This can create an "us" and "them" mentality, particularly from the perspective of students in the applied stream. Another aspect of segregation is the difference in teacher expectations between the streams. Generally speaking, teachers have lower expectations for, demand less critical thought of, and require fewer demonstrations of understanding from the applied stream. Lower teacher expectations can lead to lower student performance due to students' decreased sense of self-efficacy and self-confidence. In short, it can be a self-fulfilling prophesy: if teachers do not have high expectations of their students, students will likely not have high expectations of themselves, and thus will likely only achieve up to wherever the bar has been lowered to. This is tied into issues around self-categorization and labeling theory, whereby the labels of "academic" or "applied" impact a student's sense of his or her own capability.

The other major effect of streaming is that it puts students "on a pathway… that closes a lot of doors." Not only does it reduce students' opportunities while in high school, impacting things like course selection and ability to participate in educational activities, it also has major implications after graduation. Students who are in the applied stream have restricted postsecondary options. The choices a student makes in grades 9 through 12 have serious consequences, and yet teachers feel that their students are not always able to make informed, individualized, and mature decisions when they begin the streaming process at the end of grade 8. Once streamed, it is very hard for students to "circumvent" the "limitations" they might face

with regards to postsecondary options. While university or college is not – and need not be – for everyone, all students should have the ability to make an informed decision regarding postsecondary education when they are more mature and have a better idea of their interests and life objectives. Consequently, grade 8 seems far too early to begin the streaming process.

4.3 How can the Education System, Particularly Vis-à-vis Streaming, be Improved to Better Serve Students and Teachers?

From the data collected for this study, it seems that there are a number of steps that could be taken in order to improve Ontario's education system for both students and teachers. Although there is some evidence that academic streaming works for some groups, there is a strong desire among educators (and researchers) to "breakdown" some of the "social barriers" that arise from streaming, and to make the system more equitable in terms of opportunities and outcomes. It appears that the best way to do this is to destream. In order to facilitate destreaming, more professional development is needed for teachers, coupled with increased support, so that teachers can recognize the merits of destreaming, and come "on board" with the change. One of these supports would be to reduce the class cap, since smaller class are often easier to teach, and would reduce the range of differentiated instruction required. Furthermore, there is a strong desire for more dialogue and collaboration among teachers, in the form of knowledge sharing and even co-teaching. Lastly, if destreaming cannot be implemented fully, educators strongly recommend that streaming is at least postponed, to allow students to mature and be better informed when they make their course selections.

4.3.1 Evidence that Streaming is Working for Some Students and Teachers

Although academic streaming is clearly problematic for a number of reasons, there are still advocates for this system, particularly from those who derive benefit from it. This section will analyse the benefits to students first, and then the benefits to teachers.

One beneficial effect of academic streaming is that it often prompts teachers of the academic stream to teach their students in a way that is fast-paced and in-depth. Sheila believes that "a lot" of students in the academic stream "benefitted greatly because they were able to go at a faster pace, and they were able to concentrate without some of the distractions from students whose attention span was really limited." Beth and Jessica agreed with this sentiment, with regards to students in the academic stream. This is in keeping with research conducted by Fiedler, Lange, and Winebrenner (2002) and also Kulik and Kulik (1992); in both cases, the researchers concluded that students in the academic stream benefited from streaming as they were intellectually challenged without having to wait for students who had been categorized as less able.

One of the three educators identified that certain students benefit from being in the applied stream. Jessica noticed that one of her students who had a learning disability had more confidence and raised her hand in class more when she moved from the academic to the applied stream. Jessica gave the following reason as an explanation for this student's increased confidence: the student "is getting learning that's moving at a pace that she can handle, and she's with a peer group that's not intimidating her, either." Sheila acknowledged that she could see that students might feel discouraged if they saw "everybody else out-performing them." This fits with research conducted by Ansalone (2003), who found that streaming allows students to work at an appropriate pace for them, and that separating students meant that those in the applied

stream would face less comparison with better able peers, thus protecting them from damaged self-esteem.

While both of these are valid benefits of streaming, the first is a benefit at the cost of students in the applied stream, who often do not enjoy high teacher expectations and thus often do not perform at a standard they are potentially capable of. In Jessica's words, this is "a question of equity." The second benefit is one that could still be met in a destreamed classroom, with appropriate differentiated instruction, smaller class sizes, and additional teacher supports.

Streaming is perceived to be beneficial to some teachers, particularly those who teach the academic stream. All three educators noted that it is "much easier" to teach the academic stream than the applied stream, usually because students in the former tend to be more motivated and have better "work habits and learning skills," and, in many cases, teachers perceive students in the academic stream to be more able academically (Oakes, 1985). Jessica also noted that "a lot of [students in an academic class] are likely to have the same learning skills and the same learning habits." This makes for a narrower range of student abilities for which to differentiate. Jessica also explained the following about streaming: "it allows me to group my students more by what I can expect… I can pretty much anticipate their skill level is going to be within a certain range, and then I can tailor my lessons and my instructional style to that range." Having a smaller range of students to differentiate for could certainly be helpful for teachers, but might be just as possible if destreamed classes were made smaller.

Interestingly, while Jessica appreciated teaching academic courses, she also noted with regards to applied courses that "you can have such a huge range of abilities in a room that I don't really know that streaming is much of an advantage in that way…I don't know that it actually

really benefits teachers…I don't tend to think it's working very well for applied teachers." This suggests that, although streaming makes it easier for teachers to teach the academic stream, it does not necessarily make it easier for them to teach the applied stream. This line of thinking is echoed by Sheila, who "found the applied courses very, very challenging to teach," and doubted her efficacy as a teacher of applied classes: "I don't know if I was the best applied teacher… I'm not sure how much success I had with them." Perhaps streaming is not always so beneficial for teachers after all.

Thus, many teachers are in favour of the streaming system, partly because it can narrow the range of student abilities, making it "easier" for them to differentiate instruction. However, upon closer inspection, it is apparent that teachers are in favour of streaming when they teach the academic stream, but far more ambivalent or negative about streaming when they teach only the applied stream. Significantly, teachers like Jessica and Sheila have already had to differentiate instruction for a number of different learners within the streamed system (in both academic and applied classes), meaning that they have the skills required to facilitate successful student learning in a classroom with a larger spread of abilities, as would be the case if destreaming were implemented.

Sheila mentioned the backlash that she saw from teachers last year when her school was considering participation in a destreaming pilot. She shared the following:

> there were a lot of experienced teachers…who had definite concerns about going in the destreaming direction…they've seen when destreaming was run way back in the early '90s…and they said it was not successful, for them, or I don't know, so they kept on saying to me, 'Yes, in theory it's so great – all the research and the theory says it's amazing. But in practice, it's not!'

Sheila was not too specific about the "definite concerns" that her colleagues had, other than the issue of a broad range of ability being difficult to teach to. Some of these teacher concerns are discussed in Chapter Two in the brief investigation of why destreaming in Ontario was not successful in the 1990s. For example, Robertson et al believe that there was too much change all at once, due to curriculum integration and destreaming being introduced simultaneously, along with other more minor changes (1998). Additionally, teachers in the 1990s were concerned about the wide range of students to differentiate instruction for (Robertson et al, 1998). Sheila's point is very pertinent to the following discussion about destreaming, since, as she says, if teachers cannot be persuaded that the current academic streaming system needs serious revising, any attempt at destreaming will "fall flat on it's face." In Sheila's case, it was a recognition of the inequities in the streamed system that prompted her to consider destreaming: "I was originally not on board with the whole destreaming idea; I was against it in the beginning… [but I came around to the idea] when I realized that destreaming would really help the applied students."

4.3.2 Desire to "Breakdown Barriers" and Have More Student Integration, such as Through Destreaming

All three educators expressed a desire for more integration among students. Jessica hopes for "opportunities for students to learn with all of their peers, because… it will give them opportunities to kind of break down those social barriers and to learn from each other." Since streaming often divides students based on factors such as socioeconomic status and race, increasing integration through destreaming, where all students would be mixed together, would enable students to mix with everyone, regardless of ability, race, or socioeconomic status. Jessica sees this as highly important in order for students to gain more perspective and a better sense of the different cultures and experiences of people around them: "I think there's a lot of value as

well in the conversations that they have about their own life experiences. Sometimes kids don't even realize how far apart they are from each other, or how different someone else's life can be." Thus, a destreamed classroom would create a context for open dialogue and community building.

This idea of building community is very important to Sheila. In her destreamed classrooms, she has taken proactive steps to facilitate this:

> I do lots of things in the classroom to help [build cohesion], like grouping students' desks in groups of four so it's like a circle facing each other…I make up the seating plan…otherwise they just choose according to their social groups… I try to group the stronger with the weaker students, and have lots of conversation within that circle…all these things help create that classroom community.

While of course it is possible to take steps such as these within existing streamed classrooms, it is far more socially and culturally fruitful and constructive if these things can take place in a destreamed classroom where there is a greater diversity of backgrounds, skills, and cultures present. Curtis et al (1992) also recognize the value of integration such as this through a destreamed education system.

Not only are there social and cultural benefits to the destreamed classroom; there are also academic benefits. In a destreamed class, students can help each other based on their individual strengths. Jessica thought that it would be "really beneficial for [struggling students] to spend more time with their peers who really get it, and be able to learn from their skills or their habits even." At play here is not only the idea of students helping their peers, but also the concept of modeling: if a student who might be less inclined to participate sees his or her peer actively participating and succeeding, the more reluctant student may be encouraged to try participating

too. Sheila has found that this positive peer pressure can be very productive in the destreamed classroom: "I am seeing those weaker students who might have been placed in the applied classes actually getting on board with listening to me teach in French for the whole entire class…they're on board because *they see the other students* listening [emphasis added]." Thus, destreaming can be extremely beneficial for students who might otherwise have been in the applied stream.

Sheila believes that destreaming has not only been beneficial for those students, however. She claims that she is "having quite a bit of success" with each of her destreamed grade 9 French courses. She has had the opportunity to put into practice what Jessica had hoped to see regarding students assisting each other:

> the stronger students – you can have them help the weaker students, and the weaker students can kind of rise to the level of what they're seeing… And so everybody…works together and learns together…and in the end the overall success and achievement is greater – particularly for those weaker students.

While she acknowledges that destreaming is perhaps most beneficial for "weaker students," she claims that it is working to improve "the overall success and achievement," meaning that not only the "weaker students" can benefit from destreaming.

Perhaps it would be useful to clarify a point of language here. The mentality and language of "weak students" and "strong students", or "students who do school well" and "students who aren't good at school,"[11] is likely unhelpful. As Jessica stated, rather aptly, we need a

[11] All of these phrases are direct quotes from participants.

> culture change on what it means to be a good student…and to see different forms of success…see strength in every student, and see a student as having strengths and weaknesses instead of being a good student or a bad student.

Since every student brings something of value to the classroom, and since every student has the capability to grow and improve,[12] destreaming allows for students to utilize their strengths in service of assisting their peers. Hence, for every different task required in the classroom, different students might have different strengths: some might be confident readers, but need assistance with spelling; others might have sound problem-solving skills, but require help with understanding algebra. In different instances, each student should have an opportunity to use his or her strengths to assist others in the class. In a destreamed context, students will no longer see themselves as monolithically "applied English" or monolithically "academic math" students. Rather, the former will no longer be trapped in the self-fulfilling prophesy of low teacher and low student expectations, and the latter will not be limited by relying on "intelligence" rather than hard work (Oakes, 1985; Dweck and Mueller, 1998).

Another reason why it would be worth doing away with the labels of "academic" and "applied" is that they are often somewhat spurious. As Beth speculated,

> [in a destreamed classroom] if you asked the teacher, say, three months into the class, to blindly make a list of which kids in his or her class are academic and which are applied, I think they would get it, like, 50% wrong.

Sheila has been able to give evidence for this from her own experience:

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[12] Growth mindset refers to the application of the concept of neuroplasticity in education. Since researchers have proven that ability (or intelligence) is not fixed, but rather can be expanded, educators should encourage students and continue to challenge them intellectually, since students have the ability to increase their ability (Nisbett, 2009; Mueller and Dweck, 1998).

> I'm actually really enjoying having – I'm not even sure which students in my class necessarily would have been put in the applied stream. Nobody told me – they're all just together in one class. I am having quite a bit of success.

If Sheila had been able to tell which students would have been streamed which way, perhaps there would be more reason to believe that streaming is "necessary". But since – as Beth predicted – Sheila is unable to tell for the most part which students would have been in which stream, this is further evidence for the value of destreaming: it gives all students the potential to succeed. Indeed, as Sheila pointed out, even the students are unaware of which ones would have been in which stream, thus, in Sheila's words, destreaming is "sort of an equalizer."

4.3.3 If Destreaming is the Solution, Ontario Teachers Need Better Professional Development and Supports in order for Destreaming to Work

Since Ontario has a turbulent and controversial record with streaming and destreaming, particularly as a result of the bungled attempt to destream in the 1990s, it is imperative that teachers are brought "on board" regarding the merits of destreaming. Teachers must be given sufficient professional development and access to fact-based and thorough information about streaming and destreaming, in order to facilitate successful destreamed classes. Coupled with this, it would be helpful if the Ministry of Education decreased class sizes, and teachers had more opportunities for collaboration, for example, through sharing information and even co-teaching.

Beth feels that there are already "a lot of really good supports in place for teachers." But if destreaming is going to be accepted by teachers, more support will be necessary to ease the transition and to facilitate teachers' comfort with and understanding of the new system. As Sheila said,

> it's never going to be perfect, but… one of the keys is really a lot of professional development for the teachers, to help them to understand different ways in which they can differentiate their instruction and meet the needs of their students.

Since teachers already have professional development on how to differentiate instruction, this would not be a shock to the system. Teachers might also benefit from having better access to accurate and comprehensive information around both streaming and destreaming, in order to be better informed professionally and emotionally. This would help to overcome a lot of the hearsay and emotional-backlash against destreaming, most of which is founded upon stories from over 20 years ago.

Another way that teachers can be supported is through a reduction in class sizes. While Beth believes that "it's way more about the teacher's abilities than the class size,"[13] Sheila thinks that class size is critical to teacher and student success. Sheila's thinking is more in line with that of Schanzenbach (2014), who rebuts Gladwell's thinking and instead advocates for smaller class sizes as advantageous for teachers and students. For Sheila:

> one big thing is lowering the class cap. And we did that at our school. It used to be 32, I think, or 34, for the absolute maximum of students in a class. We're striving for 25… So my three classes are 25 or lower, and it helps. It definitely helps…18-20 kids would be perfect.

Since teachers will already have to adjust to a potentially wider variety of learners in a destreamed system, it seems only fair to reduce the class cap, to give teachers more time to ensure that they are meeting each student's needs. This also might help to prevent some of the

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[13] Beth referenced Malcolm Gladwell's famous book, *David and Goliath*, in which he states that class size is a "thing we are convinced is such a big advantage [but] might not be such an advantage at all" (2013, end of chapter 2).

backlash against destreaming that occurred in the 1990s as a result of the class cap being increased only a year after the implementation of the new system (Robertson et al, 1998).

4.3.4 More Collaboration and Dialogue Between Teachers

All three educators were unified in their desire for more collaboration and dialogue between teachers. Not only should grade 8 and grade 9 teachers be given more opportunities for dialogue so as to better understand how students make the transition to high school, but the participants called for more collaboration between teachers teaching similar courses. Additionally, one teacher believed that there should be more dialogue between teachers and classes across the country and the globe. Lastly, increased dialogue and feedback between teachers and policy-makers would be helpful to both parties.

More Dialogue Between Grade 8 and 9 Teachers

Jessica believes that students and teachers would benefit from there being more communication between middle and high school teachers. She said, “I wish I had a better idea of what they do in grade 8, because I might be able to better understand the gaps I see in their learning in grade 9.” Although the curriculum is fairly explicit about what is supposed to be taught, there is still great value in educator-to-educator dialogue, where teachers can share their insights and experience.

More Collaboration Between Colleagues Teaching Similar Courses

All three teachers described how much they enjoyed working with another teacher in the classroom. Beth described a time when she and a colleague co-taught a large class: “they put two full teachers in every room. And that was profound…I learned so much from [my teaching partner] – we worked so well together.” This “collaborative teaching” experience taught her a lot

about good pedagogy, and was also advantageous for the students, who had more support in the classroom, and benefited from a variety of teaching styles.

Jessica also saw significant advantages from having two teachers in the classroom:

> there's a lot of value in students seeing myself working collaboratively with a colleague…it's really interesting to see students react when there are two adults in the room who are working together – to see what it looks like to have a positive partnership with someone and what it looks like to cooperate.

Thus, not only did Jessica benefit from working with a colleague, but she also saw merit in teachers modeling collaborative behaviour for their students. If students see that their teachers value working with others, they are more likely to aspire to work with their fellow students. This would be highly beneficial in the destreamed classroom, where student collaboration can be an important aspect.[14]

Sheila, likewise, has experienced the advantage of having two teachers in the classroom. She seemed very pleased that "the school is paying for supply teachers to come into the classes while we're teaching, maybe once a week or so, to give those students who are struggling some extra help." This model of increased teacher to student ratio could alleviate some teacher concerns around the wider spread of students that could be found in a destreamed classroom. It seems to be working well for Sheila, who is grateful that "the school is putting money into things like support systems." She also praised the school for organizing "monthly meetings with all the destreaming teachers to share ideas and strategies." Thus, strengthening collaboration and

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[14] Conversely, if we continue with the current system of academic streaming, increased teacher collaboration could help to mitigate somewhat the divide between the streams, if teachers of applied and academic classes work together and attempt some level of integration with their students.

dialogue between educators could be highly beneficial in a destreamed (or a streamed) system. This idea of increased collaboration among teachers is in keeping with recent research by Hargreaves and Fullen, who advocate for more investment in collaboration between teachers, as one of the best means of improving teacher competence and expertise over time (2012).

More Dialogue with Classrooms Across the Globe

Keen to make use of 21st century technology, Jessica believes that teachers should connect with other teachers across not only the country but also the globe. She is confident that this would help to "break down barriers between – not only students in applied and academic classes – but students in Ontario versus students in other parts of the world." Indeed, "[the more collaboration there is] the more students will benefit." Certainly, interacting with classrooms across the country and across the world would open students' eyes to different cultures and educational styles, and could facilitate long-lasting learning partnerships.

Increased Dialogue and Feedback Between Teachers and Policy-Makers

Since Sheila is participating in a destreaming pilot project, she feels that it would be helpful if policy-makers at the Board and/or Ministry level were to seek feedback from her and her colleagues. She wondered:

> are they going to interview us – like, who is going to ask us teachers? Because we're really the front liners… Is anyone going to come to me and ask, 'How have things gone compared to previous years, and what have been your challenges and successes, and how can we improve this?'

This seems like a valid point. Unless there is open and frequent dialogue between policy-makers and teachers – not to mention students, too – how will anyone know if this destreaming pilot has

been successful in the eyes of those who are directly impacted? When asked this same question, Sheila said that she wondered the same thing. Granted, course passing rates and student scores on tests such as the Ontario Secondary School Literacy Test (OSSLT) certainly offer numerical insight, but cannot speak to the lived experience of destreaming.[15] Dialogue between these key groups would also serve to validate teachers' voices when it comes to making policy and assessing its efficacy. Furthermore, open and recurrent dialogue might help to prevent the same build up of tension and animosity that occurred in the 1990s between teachers and policy-makers.

4.3.5 In Lieu of Destreaming, Postpone Streaming

Each educator contended that, regardless of the flaws or merits of academic streaming, it begins at too young an age. Jessica believes that having students choose their stream at the end of grade 8 is worrying: "it seems really young to me… I don't necessarily think they're well-educated or well-versed about what it means for them to be choosing applied versus academic at the age of 13." Since it is imperative that students make an informed choice when they select their stream, given the potentially life-long implications that choice can have, it is indeed problematic that many students are not "well-educated or well-versed" about what their stream selection truly means. Similarly, Beth maintains that grade 8 is not a good year to start streaming as there is another crucial decision to be made at that time: where to go to high school: "it's just this frenzied time of trying to pick the right school…and you're dealing with a 14 year old, which is not the best age." Choosing the right school can be a large stressor, leaving less

[15] Indeed, several schools that have introduced destreaming have found that the rate of students passing standardized tests has increased. For example, Granite Ridge School near Kingston destreamed grade 9 math, meaning that all students take the academic stream. 89 per cent of students in the school who wrote the grade 9 math test achieved or exceeded the provincial standard, as compared to only 82 per cent in the Limestone District School Board at large (People for Education, 2015). This quantitative data demonstrates a benefit of destreaming, yet we do not gain insight into how teachers and students feel about destreaming from this data.

headspace for the equally (or perhaps even more) important decision of which courses to choose for grade 9. Separating these major decisions by postponing streaming might help students to make more informed choices.

Beth made another related argument for why streaming should be postponed. She wondered if

> grade 9 could be more of a transitional year, where [the students are] in the building in the high school, but there's still a certain amount of adjustment that is happening – where [teachers are] still looking at the students, like a diagnostic.

This transitional year might allow students to settle into a new environment, and explore their options regarding future courses and pathways. Being in the same building as the teachers who might instruct their prospective courses, and the guidance counselors who will facilitate their postsecondary applications (be they to university, college, or the workplace), means that students are able to speak with people in the know and make rational and educated decisions regarding streaming. Thus, if streaming has to be kept in some capacity, it makes sense to at the very least postpone it until, at the earliest, grade 10.

4.3.6 Section Summary: How can the Education System, Particularly Vis-à-vis Streaming, be Improved to Serve Students and Teachers Better?

Destreaming seems to be the logical solution to many of the issues raised in the second section of this chapter. Although streaming is beneficial to some groups, namely, some students in the academic stream, many teachers teaching the academic stream, and some students in the applied stream, destreaming would not necessarily eradicate those benefits. However, it could help to eliminate some of the detriments that arise as a result of streaming.

Destreaming could facilitate community-building across different groups, and could help students to be both learners and leaders, helping each other based on their strengths. Evidence suggests that this would improve the overall success and achievement of all students. One further reason why destreaming seems a logical choice is that teachers in destreamed classes often cannot tell which of their students would have been streamed which way: not only does this imply that academic streaming is somewhat spurious (and not based on ability alone), it also shows that all students *can* (not to mention should) be given the same opportunities for success, since all students have the capacity for intellectual growth.

In order to facilitate effective and well-supported destreaming, teachers must receive more support. Educators have called for more professional development on topics such as how to differentiate instruction effectively in destreamed classes, and on changing teacher outlooks around growth mindset and what student success looks like, in order to see each student as having strengths and weaknesses rather than being a "good" or "bad" student. Another helpful measure would be for the Ministry of Education to reduce the class cap in destreamed classes. Since there might be a wider variety of students, it would be fair to decrease the number of students, so that teachers can ensure that every student's needs are being met through appropriately differentiated instruction.

Educators have also expressed a desire for more dialogue and collaboration between teachers. More communication between middle and high school (especially grades 8 and 9) teachers would help ease the transition for students from one school to the next, and enable grade 9 teachers to fill in any gaps so that students can thrive in high school. More collaboration and resource sharing among teachers instructing similar courses would also be advantageous to teachers and their students. Indeed, there is strong evidence to suggest that co-teaching can be a

fulfilling and widely beneficial option, since teachers would benefit from a smaller teacher-to-student ratio and a colleague to share knowledge and strategies with, and students would profit from having more support and a diversity of teaching styles.

Finally, if full destreaming cannot yet be implemented, educators strongly advise that streaming is at least postponed till grade 10 at the earliest. This would allow students more time to mature and discover their interests, and also the opportunity to discuss their options with high school teachers and guidance counselors. Consequently, students would likely be better informed when they made their course selections. This is important since streaming can have such a huge impact on students both while they are in high school, and also beyond.

4.4 Conclusion

This chapter has explored the findings from this research into academic streaming and its impacts on students and teachers in Ontario. This chapter has addressed the three major research questions of the study. Regarding what factors, other than academic ability, determine a student's stream, the following were discussed as significant influences on the stream a student selects: work habits and learning skills, socioeconomic status, race, and level of parental advocacy. Socioeconomics and race are both prevalent in the literature on streaming, but a student's work habits and the level of parental advocacy are not commonly found in the literature. That any of these factors play such a crucial role in determining a students stream is highly problematic; in particular, a student's socioeconomic status and race should be utterly irrelevant to their stream choice, not least because these are factors beyond the student's control. Unfortunately, streaming seems to reinforce existing cycles of poverty and racism. Because these four factors can play such a pivotal role in streaming, it seems very clear that Ontario's current system of academic streaming is deeply flawed and rather inequitable.

Given how problematic the selection of stream is, it is perhaps not surprising that there are several negative effects of academic streaming, as explored in the second section of this chapter. Streaming segregates students, often more along the lines of socioeconomic status and race than on actual "ability." This becomes even more problematic due to the fact that teachers tend to have very different expectations of students based on the stream they are in, something that is reinforced in the literature and by each participant of this study. Teachers' lower expectations for students in the applied stream, potentially lead to those students having lower expectations of themselves, and thus performing under their potential. Furthermore, the very labels of "academic" and "applied" can have a significant impact on a student's self-confidence and perception of his or her ability. This can create a self-fulfilling prophecy: more success in the academic stream, and less success in the applied stream.

Another negative effect of academic streaming is that it puts students "on a pathway… that closes a lot of doors." This quote refers to the limiting of opportunities that students in the applied stream face while in high school and also post-graduation. In high school, being in the applied stream means that students have fewer options with regards to course selection. Perhaps more significant, however, is the reduction in opportunities after high school. Streaming drastically reduces postsecondary options for students who take the applied stream. While it is not – and should not be – recommended that all students go on to university or college, all students should at least have the option open to them. This requires that students have the ability to make an informed and intentional decision regarding postsecondary education when they are more mature and have a better idea of their interests and life objectives. Accordingly, it seems very problematic to force students to make such impactful, potentially life-changing decisions at the end of grade 8.

While there are some benefits to academic streaming for some groups, the system remains profoundly unfair. Hence, the third section of this chapter recommended that destreaming might be the best way to alleviate some of the issues of inequity within Ontario's education system. Since each educator expressed a desire to "breakdown barriers" among students, destreaming offers a means for student integration that can improve the overall success and achievement of the destreamed class at large. In order for destreaming to be effective and supported, however, there needs to be more professional development and teacher support. One example would be to reduce the class cap for destreamed classes, better enabling teachers to meet the potentially wider variety of student learning styles and needs.

A further recommendation was for increased dialogue and collaboration among teachers. This would allow for better communication of knowledge and resources between educators, which in turn could increase teacher and student success. Each educator commented on the value of collaborative co-teaching, where there is more than one teacher in the classroom. This, too, could make destreaming more palatable for teachers, while also benefiting students.

Lastly, teachers did not agree on the best age to begin streaming (if streaming occurred at all), but all concurred that 14 was too young to begin, and that streaming should begin at grade 10 at the very earliest, leaving grade 9 as a diagnostic, transitional year into high school.

In the following chapter, the implications and significance of these findings are discussed, along with some further recommendations. Additionally, related issues for potential future research are raised, along with a conclusion of the study.

Chapter Five: DISCUSSION

5.0 Introduction

As this study has found, academic streaming is a problematic system, particularly due to some of the inequities inherent within it. The fact that Ontario has a world-renowned education system does not mean that there is no room for improvement. This study advises that the destreaming of at least grade 9 could be one way to improve educational equity in Ontario. This chapter concludes the study by exploring some of the implications of this research into the inequities of academic streaming. The chapter provides a brief summary of the research findings as presented in Chapter Four, an investigation of the implications of these findings, recommendations based on this research, and suggestions for further research.

5.1 Overview of Key Findings

Supposedly, academic streaming works on the premise that students are streamed based on their ability and preferred career trajectory. However, this study found that academic ability (actual or perceived) is not the only factor that can determine a student's academic stream. Work habits and learning skills, socioeconomic status, race, and level of parental advocacy emerged as important factors in the streaming process, according to participants and their students. Since, in an equitable system, these factors should be irrelevant to the streaming process, this study agreed with existing research that concluded that Ontario's current education system functions in a discriminatory manner, and thus needs amending.

This study also found that streaming contributes to several negative effects on students and teachers. Streaming correlates to patterns of student race and socioeconomic status, rather than exclusively to patterns of student ability. In Ontario's streamed system, teachers can have lower expectations for students in the applied stream, which can contribute to these students

having reduced self-confidence, and, correspondingly, lower academic performance. Thus, the labels of "academic" and "applied" can impact students' self-efficacy (positively in the case of "academic" and negatively in the case of "applied"), potentially creating a self-fulfilling prophecy of sorts with regard to academic success.

Another concerning finding related to the effects of academic streaming is that it can put students in the applied stream "on a pathway… that closes a lot of doors," in the words of one participant, in terms of opportunities during high school and post-graduation. Because streaming limits students' options with regards to post-secondary education and employment, it is imperative that students make an informed and mature choice when selecting their stream. Students are perhaps too young when they make their decisions at the end of grade 8, aged 13 or 14.

While this study found some benefits to academic streaming for certain groups, such as those for some academic students and teachers of academic classes, the majority of the findings pointed to the deep inequalities and prejudices within the system. Consequently, this study proposed the destreaming of grade 9 as a means of overcoming some of the inequity within Ontario's education system. This would likely help to breakdown barriers among students, and could improve the academic achievement of all learners. It may also enable students to grow in maturity and awareness before they make important decisions regarding stream selection. Participants offered several suggestions to help make destreaming successful: reduce class size; increase professional development for teachers, especially on differentiating instruction effectively; and strengthen dialogue and collaboration between teachers.

5.2 Implications

The implications of this study are important to Ontario's education system. If Ontario continues with the status quo of academic streaming, we are likely to continue to do a real disservice to many students in the province who do not benefit from – nay, who are disadvantaged as a result of – academic streaming. Even if there were a way to truly eliminate from the process of streaming factors such as race, socioeconomic status, and level of parental advocacy, it seems clear that the system needs amending, in order to remove many of the inequities that currently exist.

In addition to the inequities that result from academic streaming, the existing system may have economic implications, too. Since this research has confirmed and extended the findings of extant literature that suggests that the applied stream restricts students' opportunities (in terms of academic growth and career possibilities), streaming is potentially limiting the intellectual growth of Ontario's workforce. Furthermore, streaming can restrict the learning – particularly critical thinking – of students in the applied stream, meaning that students are may be ill-prepared for the 21st century workplace where critical thinking skills are among the most important for an economy such as Ontario's (Kivunja, 2015).

While this study has highlighted some concerning flaws in Ontario's education system, there is nonetheless hope. Destreaming offers a way to ensure that all students have more open options while in high school and also beyond. Indeed, scholars such as Boaler have shown just how advantageous destreaming can be for both students and teachers (2011). The promising ongoing Toronto District School Board pilot project suggests not only that destreaming could

work very well in Ontario, but also that educators and policy makers can be convinced of the desirability of destreaming.[16]

5.3 Recommendations

The principal recommendation of this study is for the destreaming of grade 9 in Ontario's high schools. Since this would be a large and somewhat controversial undertaking, particularly in light of the unsuccessful destreaming attempt of the 1990s, it is recommended that several groups within the education sector implement certain changes in order for destreaming to be successful.

At the micro level, this study encourages teachers to continue to be open-minded about the idea of destreaming. As one participant explained, many experienced teachers are hesitant due to their negative exposure to destreaming in the 1990s. These teachers are wary, and understandably so, but it is essential that teachers are receptive to the growing evidence against streaming, not only from research conducted by the Ministry of Education and local school boards, but also by universities and education advocacy organizations such as People for Education. Since the current system of streaming is biased against so many students, change is imperative. But successful destreaming is only possible if teachers are on board with the initiative: teacher support is indispensible. This became clear when teachers spoke out against destreaming in the 1990s, when many teachers felt that the new system was imposed on them without consultation, discussion, or training (Robertson et al, 1998). Teacher dissatisfaction with the top-down implementation of destreaming contributed to the short lifespan of this brief experiment with destreaming. Thus, it is crucial that teachers are engaged in two-way dialogue

[16] Sheila, a participant in this study, is part of this pilot project, and thus provided helpful insight into her experiences of destreaming in Ontario.

about destreaming, so that their professional opinions are heard and valued. Likewise, teachers need a forum in which to share how they might be supported in a destreamed classroom.

Increased professional development on differentiated instruction and best practices for teaching destreamed high school classes would help to support teachers and may encourage their receptivity to destreaming. Hence, this study recommends that the Ministry of Education and local school boards agree to provide more opportunities for teacher professional development during the school year. This could help teachers to access accurate and unbiased information about the benefits and practicalities of destreaming, both for themselves and for their students.

While professional development for in-service teachers is necessary, it is also essential that pre-service teachers are knowledgeable about strategies to teach successfully in a destreamed classroom. Universities should (continue to) provide pre-service teachers with the latest research on this topic, and also practical strategies on how to differentiate instruction effectively for a variety of learners and learning styles. If new teachers are well-informed about the merits of destreaming, they will be better able to advocate for and implement this change, and to encourage their future colleagues with regards to destreaming.

School boards such as the Toronto District School Board (TDSB) have made promising progress in testing out destreaming in pilot projects in several schools (TDSB, 2015). This study endorses the continuation and expansion of projects such as these. This method of inviting schools to join the pilot project and gradually expanding the number of schools participating seems to be highly effective as it allows principals and teachers to come on board with destreaming more voluntarily, which increases their sense of commitment to destreaming. It is

important that school boards such as the TDSB promulgate the success of destreaming pilots, so that boards and schools across Ontario are also encouraged to undertake destreaming initiatives.

Education advocacy groups have also played a significant role in leading the province away from streaming. This study commends groups like People for Education for their tireless efforts to inform the public of the negative effects of academic streaming in Ontario. Research and advocacy groups – along with students and faculty at Ontario universities – should continue to investigate streaming and destreaming, and should perhaps also examine how best to convince teachers and parents of the benefits of destreaming, since it is these two groups that can often be the loudest supporters of streaming.[17]

At the macro level, this study recommends that the Ministry of Education continues its tacit support for destreaming. The ministry should continue to fund research into destreaming and encourage destreaming pilots. More radically, the ministry could also take steps to decrease the class size cap in Ontario high schools. This would make it easier for teachers to differentiate their instruction to a more diverse body of students, as would likely be the case in a destreamed class. Enabling teachers to give more time to fewer students would be beneficial to both teachers and students. Reducing the class cap would therefore make destreaming easier for teachers to implement.

5.4 Areas for Further Research

While it is valuable and informative to investigate the inequities of academic streaming in Ontario through semi-structured interviews with practicing educators, there are many areas for

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[17] Indeed, Hart and Kempf found in their recent study of public attitudes toward education in Ontario that a third of parents believe that streaming should happen at grade 9 or earlier, and a majority believe that streaming should happen at grade 10 or earlier (2015, p. 24-25).

potential further research. Given the small scale of this study, it would be useful to interview a wider range of teachers from across the province about streaming and destreaming, so as to gain a broader perspective on these two issues. Furthermore, it could be helpful to investigate students' personal experiences of being streamed, and, in the case of students attending destreamed classes, how they feel about destreaming. Both teachers and students can give valuable insight into the (dys)functionalities of the education system, and also offer suggestions for how to improve it. Indeed, as described in Chapter Four, the participants in this study were very forthcoming about ways to make destreaming successful, identifying strategies that would help both teachers and students. Similarly, it might be useful to conduct interviews with parents so as to gain insight into why so many still support streaming. The findings from a study such as this could be used to open up more public dialogue about, and movement toward, destreaming.

Another area for further research could involve investigating the career trajectories, standards of living, and incomes of students post-high school, across all academic streams in Ontario.[18] This research could increase the impetus for destreaming, since it is likely that the findings of such a study would show a disparity between students from academic and applied streams.

Since there is already a well-established correlation between academic streaming, race and socioeconomic status, it would be interesting to conduct further research into the links between academic stream and level of parental advocacy. This study has found a strong connection between the academic stream and high levels of parental advocacy, but further research should be done to corroborate this.

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[18] Boaler has conducted longitudinal research into this matter in the UK, but it would be useful to have Ontario-specific data on this matter (Boaler, 2005).

Further research into the plasticity of "ability" or "intelligence" could be highly germane to the conversation on destreaming. Academic streaming is largely based on the premise that students should be sorted into groups based on their ability. Research has shown that ability is not fixed, but rather is pliable, thus making the concept of "ability" more fluid (Nisbett, 2009; Mueller and Dweck, 1998). Research into the validity of neuroplasticity and growth mindset therefore challenges the very concept of academic streaming, since it is clear in the literature that almost all students have the potential for academic growth. It would therefore be helpful to the cause of destreaming to investigate further the potential benefits of adopting a growth mindset within the destreamed classroom, to help each student reach his or her potential.

One final area for further research could include an inquiry into how far destreaming should go. This study has called for the destreaming of grades 9, to ensure that all students have the opportunity to learn to a high level and keep their postsecondary options open for longer. It would be worthwhile to investigate whether destreaming should be implemented in grades 10, 11, and 12 also.

5.5 Conclusion

Race, socioeconomic status, and level of parental advocacy should be irrelevant in an equitable system. But this is not yet an equitable system. This study has shown that streaming is disadvantageous for many students in a variety of ways. Streaming can create self-fulfilling prophesies with regards to academic achievement, through the power of the labels "academic" and "applied." Streaming not only limits many students' success and access to opportunities during high school, but it can also constrain students' options after graduation; decisions around course selection made in grade 8 can therefore have life-long consequences. The implications of academic streaming are significant: not only does streaming limit students during and after high

school, but it possibly limits the vitality of Ontario's economy at large, since not all students are encouraged in critical thinking. In short, streaming at the end of grade 8 does not seem to be the best model for Ontario's students or the province generally.

This study recommends several changes to Ontario's education system. First and foremost, this study recommends that Ontario destreams grade 9 at the very least. To better ensure the success of this change, this study recommends: that teachers be receptive to dialogue about destreaming; that teachers attend more professional development on destreaming and how to differentiate instruction to a wide variety of learners; that pre-service teachers receive similar professional development; that school boards expand their destreaming pilot projects, and promulgate the success of the initial projects to encourage other boards to destream; that universities and advocacy groups continue their investigations of streaming and destreaming, and persist in their efforts to promote destreaming; and that the Ministry of Education continues its tacit support for destreaming, and considers reducing the class size cap, to make destreaming more successful for teachers and students alike.

This study is a platform on which to conduct further research. For example, it could be useful to interview a wider sample of teachers, and also gain the perspectives of students and parents. Furthermore, it would be interesting to conduct research into the career trajectories of students in Ontario, based on stream. Two other areas of potential further research include investigating the link between academic stream and level of parental advocacy, and investigating how to use theories of neuroplasticity and growth mindset to increase the success of destreaming. This study recommends that Ontario destream grade 9; further research into the advantages and disadvantages of extending destreaming to later grades could be useful.

Ontario has made much social progress toward equality, and has an internationally acclaimed education system. Yet within this system, academic streaming remains an obstacle in the pursuit of racial and socioeconomic equality. It is time to move forward and actively pursue the destreaming of grade 9 in Ontario, so as to better serve all students, and society at large.

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Appendix A: Interview Consent Letter

UNIVERSITY OF TORONTO
OISE | ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION

Date:

Dear _____,

My name is Emily Kinnon and I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on the effects of academic streaming on Ontario high school students. I am interested in interviewing teachers who have taught in Ontario for five or more years and who have an opinion (either positive or negative) on the policy of academic streaming in this province. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one 30 to 45 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates and/or potentially at a research conference or publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. This data will be stored on my password-protected computer and the only people who will have access to the research data will be my course instructor, Arlo Kempf. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks or benefits to participation.

Please sign this consent form, if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,

Emily Kinnon

647-861-7996

emilykinnon@gmail.com

Course Instructor's Name: _____

Contact Info: _____

Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw from this research study at any time without penalty.

I have read the letter provided to me by _____ and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.

Signature: _____

Name: (printed) _____

Date: _____

Appendix B: Interview Protocol

Section 1: Background Information

1) What subjects have you taught?
    a. And what are you teaching now?
2) What kinds of schools have you taught in?
3) How many years have you worked as a teacher?
    a. And how long have you been teaching at your current school?
4) Have you had any direct experience helping students to select their courses for grades 9-12?
5) So I can better understand the student body with which you work, what are your students like? It would be helpful if you could share about the ethnicity, age, socioeconomic background, and academic ability of the students.

Section 2: Teacher Experience

6) We're now going to move to some questions about streaming in Ontario. Did you have experience of the pre-1999 Ontario system, either as a teacher or student? If so, do you think the current streaming system is an improvement over the old one? Why or why not?

Section 3: Beliefs and Values

7) Do you think the current system of academic, applied, locally developed, university, college, open courses is working for <u>students</u>? If so, why?
8) Do you think the current system of academic streaming is working for <u>teachers</u>? If so, why?
9) Ontario students choose their courses at the end of Grade 8: do you think this is a good age to begin the streaming process and why?

Section 4: Influencing Factors

10) Can you give me an example of a student you worked with who benefited from streaming?

11) Can you give me an example of a student you worked with for whom streaming was detrimental?
    a. How did this manifest in terms of race/socioeconomic status, etc?
12) Have you seen any correlation between academic stream and socioeconomic status?
    a. How about between academic stream and race?
    b. And mental health?
    c. And English Language Learners?
    d. And students with learning disabilities?
13) Do you think that applied curricula (generally speaking) prompt students to learn critical thinking skills?
    a. And how about a love of learning?
14) I'm going to read a quote from my literature review and then ask you what your impression is in relation to streaming: "Labeling theory acknowledges that labels used to describe people can influence self-identity and behaviour" (Kinnon, 2014). Do you think that the labels of "academic" or "applied" affect students' confidence?
    a. And how about affects on performance?

Section 5: Next Steps

15) What changes to the current system of streaming, if any, would you propose to make it better for <u>students</u>?
16) What changes to the current system of streaming, if any, would you propose to make it better for <u>teachers</u>?
17) Lastly, and feel free to interpret this question however you like: what does an ideal classroom look like to you?