Explaining the Differential Distribution of School Engagement among 10 to 15-year old
Canadian Students: Do Ethnicity and Parental Immigration Status Make a Difference?

by
Erin Marie Krzyzanowski, B.A. (Hons.), B.Ed.

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of

Master of Arts

Department of Sociology and Anthropology
Carleton University
Ottawa, Ontario
September 12, 2008
©2008 Erin Marie Krzyzanowski

Library and
Archives Canada

Bibliothèque et
Archives Canada

Published Heritage
Branch

Direction du
Patrimoine de l'édition

395 Wellington Street
Ottawa ON K1A 0N4
Canada

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file   Votre référence

ISBN: 978-0-494-43471-0

Our file   Notre référence

ISBN: 978-0-494-43471-0

NOTICE:

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

AVIS:

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protègent cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

Canada

Abstract

Recent literature addresses the differentials in school engagement – both as participation in academic activities and belonging in the school environment – among ethnic groups and by gender. Little work, however, has addressed the school engagement of Canadian youth. Using data from the National Longitudinal Survey of Children and Youth, this thesis uses Bourdieu and Passeron’s theory of social and cultural reproduction to examine school engagement in young Canadian adolescents aged 10-15. The results indicate that there are significant differences in school engagement depending on a student’s gender and parental immigration and minority status. Further, possession of economic and cultural capital does, in some instances, affect school engagement and reduces the relationship between a student’s immigration and minority status and participation engagement.

Acknowledgements

I would like to express my sincere thanks to my supervisor, Rania Tfaily, as well as Zhiqiu Lin, both of whom have provided valuable advice and helped bring this project into fruition. In addition I would like to thank my parents, who encouraged me to pursue yet another degree, Mark for getting and returning many library books essential to this project for me and Brandon for his continuing support and encouragement. Thank you as well to Jean-Michel Billette at the COOL Research Data Centre.

Table of Contents

Abstract	ii
Acknowledgements	ii
List of Tables	v
Chapter 1: Introduction	1
Chapter 2: Conceptualizing School Engagement	8
2.1.1 Alienation	8
2.1.2 Social Bonding	11
2.1.3 Social and Cultural Reproduction	13
2.2.1 Aboriginal Education	17
2.2.2 History of Immigration	20
2.2.3 Structure and History of the Canadian School System	22
Chapter 3: Data and Methods	25
3.1 The Survey	25
3.2 The Sample	26
3.3 Measures	27
3.4 The Statistical Method	34
3.5 Analytic Approach	36
3.6 Distribution of the Variables	36
3.7 Non-Response Analysis	39
Chapter 4: Findings	44
4.1 Bivariate Descriptive Statistical Analysis	44
4.2 Step-Wise Regression Results: Participation and Demographic Characteristics	49
4.2.1 Effect of Youth Characteristics	52
4.2.2 Effects of Family and Geographic Characteristics	53
4.2.3 Effects of Economic Characteristics	55
4.3 Step-Wise Regression Results: Participation and Measures of Capital	56
4.3.1 Effects of Economic and Reference Resources	58
4.3.2 Effects of Cultural Activities	60
4.3.3 Effects of PMK's Value Placed on Grades	60

4.4 Summary	62
Chapter 5: Discussion	63
5.1.1 Gender	63
5.1.2 Immigration and Minority Status	65
5.1.3 Cultural Capital	71
5.2 Limitations of the Theoretical Approach	73
5.3 New Evidence for School Engagement	74
5.4 Implications	77
Chapter 6: Conclusions	79
6.1 Limitations	80
6.2 Recommendations	81
6.3 Conclusion	84
References	86
Appendix A	91

List of Tables

Table 1: Distribution of the Variables Used in the Regression Analysis	37
Table 2: Non-Response Analysis	40
Table 3: Distribution of Independent Variables as a Percentage by Immigration and Minority status	46
Table 4: Distribution of Independent Variables as a Mean by Immigration and Minority status	47
Table 5: Distribution of Ethnicity amongst Visible Minority Youth	49
Table 6: Regression Models of Participation Engagement and Youth, Family, and Economic Characteristics	51
Table 7: Regression Models of Participation Engagement and Capital	57

Chapter 1: Introduction

The engagement of students in learning is a concern for today's educators and policy makers. Participation in learning activities and developing a sense of belonging to the school community are important schooling outcomes that teach skills necessary for the world beyond the classroom. It can be expected that a student's interest and participation in school during the formative years will influence his/her decision whether or not to pursue post-secondary studies – a decision that is closely tied to future economic and overall well-being (Willms, 2003). Students who do not engage with their learning through participation in academic activities and developing an emotional connection to their school and peers are more susceptible to academic difficulties or withdrawal from school (Klem & Connell, 2004; Norris et al., 2003).

Students who drop out of school, whether at the high school or post-secondary level, can expect long terms consequences that include less labour force participation, greater unemployment, and lower earnings. In 2006, labour force participation among those aged 15 and older ranged from 41.9% for adults with less than high school to 80.1% for those with a university degree. Meanwhile, the unemployment rate topped out at 12.3% for adults with less than high school and dropped to 4% for those with a university degree (Chawla, 2008). In 2000, average annual earnings for couples with a male partner aged 25-34 stood at \$33,600 when both spouses had not completed high school, \$49,500 when both partners had completed high school, and \$90,200 when both members of the couple had a university degree. Similar differentials are found in couples at later stages of their working lives (Morissette & Johnson, 2004).

It is especially important to acknowledge the ethnic and gender differences in education. While minority youth are aware of the linguistic and behavioural currencies that are deemed acceptable in formal settings such as schools, a lack of conformity to these practices creates inequalities in grades and treatment by teachers for minority students when compared to their majority group peers (Carter, 2003). Likewise, there are gender disparities in education. On average, women are faring better in school and achieving higher levels of education than men (Mickelson, 2003).

Social inequality in education has undergone change in recent years. There are evident ethnic inequalities in high school completion and post-secondary attendance. Research using data from the Youth in Transitions Survey indicates that of youths aged 18-20, 12% of First Nations students were high school dropouts compared to 5% of visible minority immigrants, 9% of European immigrants, 5% of Canadian-born visible minorities, and 7% of Canadian-born Europeans. In this same group of youths, First Nations students were less likely to be enrolled in post-secondary education (50%) than their immigrant or Canadian-born peers, who had attendance rates ranging from 72 to 80% (Thiessen, 2007).

Immigration and minority status could be linked to school engagement through mechanisms such as parents' socio-economic status and parents' interest in their child's education. Immigrant parents often have higher levels of education than the average Canadian adult. In contrast, Aboriginal adults average fewer years of education than that of the adult Canadian population. These differences may translate into varying degrees of support for children's education and differentials in the levels of school engagement

amongst children of the various population groups. Likewise, immigrant parents can face lower household income due to a lack of Canadian credentials in their field of expertise, and Aboriginal parents may experience low income attributable to their fewer years of education. Research has shown that parental interest in education is influential in reducing the financial disadvantage on educational qualifications attained by adulthood, especially when interest is displayed by the father (Hango, 2007). Therefore, it is possible that any negative effect of low income on school engagement could be overcome by greater parental interest in educational outcomes.

Research in the United States indicates that there are ethnic differences in early educational investments, including parental expectations, school involvement, educational resources available in the household, cultural capital, and savings for college. Early educational investments are also linked to later educational investments that help prepare students for post-secondary education. African-American, Hispanic, and Native American students are disadvantaged in terms of parental investments in comparison to whites and Asian students are advantaged relative to whites (Charles et al., 2007). While ethnic differences in early educational investments disappear given equal financial resources, the distribution of income amongst various population groups is not equal. As a result, it is possible that a relationship between ethnicity and school engagement is mediated by income and early educational investments, with those population groups living in higher income benefiting from increased parental investments.

Furthermore, the school climate, including relations with peers and supportiveness of teachers, could lead to differentials in school engagement between the population

groups. Latino students who experience support from their peers and who perceive their teachers as having positive attitudes and behaviours have higher school engagement scores than students who do not have this type of encouragement (Garcia-Reid et al., 2005). Similarly, African American parents of economically disadvantaged families report greater involvement in their child's education when they feel their child's school is receptive to and welcoming of parents (Overstreet et al., 2005).

A widening of the gender gap in education is underway. Today, middle-class girls are at the head of the pack in terms of educational achievement because of their keen understanding of the expectations and values of the educational system (Mickelson, 2003). Girls are also socialized to behave in a manner that is rewarded in the school system. Recent research into school engagement trajectories and their predictive relations to dropout among students in Quebec shows that girls are more likely than boys to be in stable engagement trajectories between ages 12 and 16. Students in stable trajectories have moderate to very high levels of engagement and are shown to have much lower rates of high school dropout by age 16 than students in non-stable trajectories (Janosz et al., 2008).

The gender gap in education is specific to certain levels of schooling and subject matters. In kindergarten through third grade, male and female students perform much the same on general knowledge and reading assessments. Mathematics achievement is also similar between the genders in the early years of schooling, although male students begin to slightly outperform female students by the third grade. Results from the Program for International Student Assessment indicate that 15-year girls outperform their male peers

in reading while male students achieve higher results in mathematics than females in 13 of the 28 participating countries. However, the average gender gap in the mathematics assessment which favors boys (11 points) is narrower than the typical gap in reading achievement which is higher for girls (32 points) (Freeman, 2004). The disparity continues at the college and university level with 77% of Canadian women having participated in postsecondary education by age 20-22 years compared to 66% of Canadian men. Young men are also somewhat less likely to complete a college or university program than young women, with 17% of men leaving post-secondary schooling compared to 13% of women. Youths who participate in post-secondary education are more likely to have reported high levels of academic and social engagement in high school. Likewise, young adults who leave post-secondary studies without completing their program tend to have been less engaged in high school (Lambert et al., 2004). While it would be alarmist to say that there is a gender crisis in education, the educational needs of males, including their school engagement, requires close attention.

Previous research in the field of student engagement includes international samples (Willms, 2003) and both national and local samples in the United States (Voelkl, 1997; Finn, 1993; Kirkpatrick Johnson et al., 2001 & Garcia-Reid et al., 2005). Little research has focused on how Canadian students fare in their engagement to school, with the exception of Canada's participation in The Programme for International Student Assessment, an international study of students that includes an overlook of school engagement. Recently, trajectories of school engagement and high school dropout have also been examined using a sample of students from the province of Quebec (Janosz et al., 2008). An examination of ethnic and gender differences in school engagement among

sectors of the Canadian youth population is therefore necessary to obtaining a portrait of this current issue in education. There are unique considerations to the study of ethnic differences in patterns of school engagement among Canadian youth. A historic undercurrent of educational mistreatment of First Nations youth exists as well as a pattern of selectivity in the Canadian immigration system.

Before delving into the state of student engagement amongst Canadian youths, it is first necessary to fully explain the concept of school engagement. The concept of school engagement is based upon the idea of active involvement or commitment to school. Researchers in the field of engagement generally agree that there is more than one type of engagement, although there is some variation in what aspects are included under each type of engagement. All researchers describe a behavioural component and a psychological element to engagement. The behavioural component is referred to as participation or academic engagement. It can involve absenteeism/skipping class, attention paid to the teacher, behaviour in the classroom, completion of homework and participation in student government or school sports teams (Willms, 2003; Voelkl, 1997; Finn, 1993; Kirkpatrick Johnson et al., 2001). There seems to be little consensus about what aspects fit under the umbrella of participation; rather each researcher determines their measure of participation according to the data available from the survey they are working with. The psychological aspect of engagement is known as belonging, identification, or attachment. This part of engagement has been included in more recent studies of engagement (Willms, 2003; Voelkl, 1997 & Kirkpatrick Johnson et al., 2001). This component always measures whether students feel they belong at school. Some researchers also include the value the student places on school related outcomes into the

category of identification with school (Voelkl, 1997). Fredricks et al. (2004) describe a third type of engagement: cognitive, which involves investment, or the willingness to exert the effort required to master difficult skills. This type of engagement is more difficult to measure and as of yet has only been theorized and not researched.

One part of understanding the bigger picture of inequality in education is gaining insight into how school participation varies by gender and ethnicity at a relatively early age. This thesis seeks to answer the following questions. First, how does school participation among Canadian students aged 10 – 15 years differ by gender and minority and immigrant status? Second, to what extent do parental education and income explain the minority and immigrant status differentials in school engagement? Third, how does cultural capital help to explain differences among young adolescents in school engagement? Therefore, the main purpose is to determine whether the theory of cultural capital can explain differential school engagement by ethnic and immigration status or if ethnic differences in patterns of school engagement persist after considering child and family characteristics, as well as indicators of cultural and economic capital. To address these questions, I undertook a study of school engagement using multiple regression analysis with data from the third cycle of the National Longitudinal Survey of Children and Youth. The results indicate that levels of participation engagement are similar across immigration and minority status groups once youth, family, economic, and capital characteristics are controlled. Still, some differences in levels of school participation do exist, as male students, First Nations students, and youth from non-intact families generally have lower school engagement.

Chapter 2: Conceptualizing School Engagement

To gain a more detailed understanding of the topic of school engagement it is necessary to see how engagement can be theoretically framed. Researchers in the area of student engagement present several theories to explain varying levels of attachment and commitment to school. Of these theories, three have appeared often in work on student engagement: alienation (Voelkl, 1997; Willms, 2003), social bonding (Berends, 1995; Garcia-Reid et al., 2005), and cultural and social reproduction theory (Woolley & Bowen, 2007) and they will be explained here in detail. Further, relevant studies on the topic of school engagement will be presented and discussed in relation to the theoretical perspectives on engagement. I will also provide reasoning for my selection of Bourdieu's theory of capital to frame a study of student engagement. Finally, a brief history of Aboriginal education, Canadian immigration, and the Canadian school system will be presented to provide a background on the immigration and minority status groups that will be analyzed in this thesis and an overview of the educational climate in which these young adolescents exist.

2.1.1 Alienation

Alienation, most commonly associated with Marx's writings on the relation of the labourer to capitalist society, can also be applied to schooling. Although Marx never mentions education in his discussion of alienation, he believes alienation pervades our social reality. As such, the concept of alienation should be closely tied to the area of learning. Specifically, the alienation of students has been linked to two aspects of Marx's

concept of alienation: alienation from one's species-being and alienation of the individual from other human beings (Small, 2005).

Using Marx's theories on the labourer, the learner who acquires skills and knowledge is similar to the worker who produces a commodity. The systematic alienation of the student from their own learning, through the hierarchical distribution of authority within schools and a disconnection between the student and the curriculum gives the student very little ownership of their scholastic activities (Small, 2005). When work, or here, scholastic activity, does not provide satisfaction the student would expect to receive for his or her effort because of structure that dominates and guides the learning process, the student becomes alienated (Gereluk, 1974).

Most important to understand when applying the concept of alienation to schooling is to understand that alienation is not a state of mind but a state of the whole person (Small, 2005). The concept of alienation as it has been applied to students and schooling has been criticized for the manner in which a problem is identified. The alienation explanation has been used to classify the problem as a feature of the student him or herself, stemming from a negative attitude or disposition. Essentially, the alienation explanation assumes that the state of the student is complete in itself, that is to say, that the problem of alienation is only the student's problem and not that of the education system, school, classroom, or teacher (Gereluk, 1974). Therefore the problem of alienation lies in the *situation* of the student, not just the student himself. The elimination of the alienation problem will only happen through a real change of the situation. It is not just the student alone, nor the classroom that needs to make

adjustments; rather, a radical transformation of education is needed to address the alienation problem (Small, 2005).

Likewise, the student is distanced from their peers through competition for top grades and attention from teachers. Faced with this system of competition for recognition, some students may withdraw from the learning process. Most interestingly, Marx asserts that it is the workers who are most directly confronted with alienation. Therefore, in terms of schooling, it is the normal and thriving student, rather than the disconnected or dropout youth who is subject to alienation (Small, 2005).

When applying the concept of alienation to school participation Moyer and Motta (1982) showed that African-American students who scored greater than one standard deviation above the mean of the Adolescent Alienation Index employed in their study (highly alienated) were less involved in school activities, had lower grades, held fewer positions of responsibility, and had more incidences of suspension than non-alienated students. In contrast, there were no demographic or socio-economic differences between alienated and non-alienated white students.

Delving further into the topic of alienation Voelkl (1997) sought to uncover the process by which students develop identification or dis-identification with school. She explains that identification can represent an attachment that forms between an individual and an institution, such as the attachment that forms between a student and their school. Voelkl goes on to argue that during childhood and adolescence schooling plays such an important in everyday life that the school experience can become central to the individual's self-view. Her study involved both white and African-American eighth grade students and tested the link between academic achievement and classroom participation

in grades 4, 7, and 8 and identification with school in grade 8. The results of Voelkl's research indicate that students with higher academic scores and higher levels of classroom participation had higher degrees of identification with school. Stronger links were made between more recent achievement and participation and belonging (behaviours observed in the fourth grade held less importance). Ethnic patterns were also noted, with African-American students having significantly higher levels of identification with school than their white peers (Voelkl, 1997).¹

2.1.2 Social Bonding

Social bonding is a type of control theory that has its roots in Durkheim's theory of anomie. As Durkheim explains, "The more weakened the groups to which [the individual] belongs, the less he depends on them, the more he consequently depends only on himself and recognizes no other rules of conduct than what are founded on his private interests" (1951; 209). Though Hirschi uses social bonding to explain delinquency, its elements can also be found in school engagement. The first of these elements is attachment, the extent to which an individual is bound to others and to meeting their expectations for normative behaviour (Hirschi, 1969). Many students build a relationship with their teacher(s) and strive to meet the expectations the teacher sets out for them. The second component of control is commitment. The extent to which an individual has invested time and effort into achievement causes him to consider the consequences

---

¹ While it may seem that the results of the research conducted by Moyer and Motta and Voelkl are contradictory, these two research projects examined different types of engagement. The items taken under consideration by Moyer and Motta (involvement in school activities and behavioural issues) are more characteristic of participation engagement, while Voelkl studies belonging engagement.

“deviant” behaviour could have on this investment (Hirschi, 1969). This aspect of social bonding would probably be more readily observable in high school students who are nearing the end of their studies. An infringement of the rules or less than satisfactory effort could have serious consequences on future educational or career goals. Next is involvement; individuals who are occupied with conventional doings have little time to become involved in deviant activities (Hirschi, 1969). Students who regularly participate in academic activities do not have time to think about dropping out or to behave in ways that could impede their academic success. Finally, there is belief. The degree to which an individual believes in the legitimacy of norms and morals decreases the probability that she will engage in delinquent acts (Hirschi, 1969). Students who value education and the opportunities that education can provide probably demonstrate higher levels of school engagement. Hirschi also believes that there is a relation between each of these elements of control. He indicates, “the more closely a person is tied to conventional society in any of these ways, the more closely he is likely to be tied in other ways” (1969; 27).

Using social bonding theory, Berends (1995) sought to examine whether tracking students into different academic streams contributed to the students bonding to their school. He hypothesized that teachers and students would communicate more successfully when both of them placed similar value and meaning on the educational process. His study follows over 25,000 American students who were in the tenth grade in the base year of the survey and the twelfth grade in the follow-up wave. Students were categorized into two “tracks” with students who usually took college-oriented courses grouped into the academic track and students who took general or vocational courses grouped into the non-academic track. After accounting for those students who dropped

out between the two survey waves and for school bonding in the tenth grade, students in the general and vocational tracks had lower college expectations, had more disciplinary problems, and were less engaged than students in the academic track (Berends, 1995).

The effects of social support, including support from teachers, friends, parents, and neighbours, on school engagement were studied by Garcia-Reid et al. (2005) in a sample of Latino middle-schoolers from New Jersey. These researchers sought to examine the interrelationship between school, neighbourhood, and school engagement as well as the buffering effect of social support for students deemed “at-risk”. Their findings reveal direct and indirect relationships among these indicators. Neighbourhood youth behavior was found to have an indirect effect on school engagement through its relationship with parent support. Parent support was directly related to school engagement, with students who reported greater frequency of supportive behaviours from their parents also exhibiting more positive engagement. Likewise, neighbourhood safety had indirect effects on school engagement through relationships with parent and teacher support and friend support was related to school engagement. Latino youth who thought their teachers had positive attitudes and who had trust and closeness with their friends were more likely to be engaged in school (Garcia-Reid et al., 2005).

2.1.3 Social and Cultural Reproduction

Bourdieu defines capital as “accumulated labor which, when appropriated on a private... basis by agents or groups of agents, enable them to appropriate social energy in the form of reified or living labor” (1986; 241). He goes on to explain that capital is a principle that underlies and regulates society and maintains against providing equal

chance at success to everyone. Bourdieu identifies three types of capital: cultural, social, and economic, each of which contribute social and educational advantage. Under certain conditions, the first two types of capital can be transformed into economic capital (Bourdieu, 1986).

Cultural capital takes three forms: the embodied, objectified, and institutionalized states. The embodied state of capital requires a personal investment of time to develop oneself and acquire capital that is passed on through the family. This acquisition of capital is limited only by the time available free from economic necessity. The objectified state consists of material objects such as writings, paintings, monuments, and instruments. Cultural goods can be appropriated materially, which requires economic capital, or symbolically, which involves embodied capital (Bourdieu, 1986). For example, to acquire an educational object such as a dictionary requires economic means, but to use a dictionary for its specific purpose involves embodied capital. Finally, the institutionalized state of cultural capital takes the form of academic qualifications which provide conventional, constant, and legally guaranteed value to the holder (Bourdieu, 1986).

Social capital is derived through membership to groups which provide its members with “credentials” that entitle them symbolic or material credit. These groups can include a family, a social class, a school, or a workplace. Exchanges between group members transform the things exchanged into signs of group membership and in turn reproduce the group and social capital. Exchange also defines the limits of the group, the confines beyond which a legitimate exchange cannot take place (Bourdieu, 1986).

The conversion of economic capital into cultural or social capital is certainly possible, but not without a degree of effort. Material goods may be acquired relatively easily for those with a wealth of economic capital, but membership to exclusive social networks and the privileges they afford requires longstanding relationships that have been cultivated over a period of time (Bourdieu, 1986).

Cultural and social reproduction theory attempts to explain the inequalities in educational attainment of students from different social classes. According to this theory, knowledge and skills of the dominant class are valued in the educational system while the know-how of the minority group is illegitimated. Bourdieu and Passeron identify museum visits, theatre attendance, and classical music appreciation as some “sufficient” indicators of cultural capital that can be passed on to youth of the dominant class. Young adolescents who have not been exposed to cultural capital lack skills and styles that are rewarded by teachers. Eventually, due to imposition of a culture that they do not fully understand, the minority group gets squeezed out of the educational system (Bourdieu & Passeron, 1990).

Linguistic capital highlights the importance placed on style in language in the educational system and how one’s success is determined in part by the complexity of language passed on by one’s family. Bourdieu remarks that the influence of linguistic capital is especially important in the early school years, when understanding and use of the dominant language are skills on which teachers make assessments. Linguistic style continues to be taken into account, whether implicitly or explicitly, at every level of schooling (Bourdieu & Passeron, 1990).

The effects of social capital on behavioural engagement were assessed by Woolley and Bowen (2007). Student-reported data from middle –school students across five states revealed that social capital did have definite effects on school engagement and that social capital and contextual risks varied across ethnic groups. The results suggest that social assets mediate the negative influence of contextual risks, such as living in an unsafe neighbourhood and attending a school where students carry weapons. Overall, social capital could explain 9% of variation in school engagement scores. Furthermore, patterns of ethnic differences suggest that increasing levels of social capital or decreasing environmental risk factors would go a long way to improving engagement outcomes for Black and Hispanic youth (Woolley & Bowen, 2007).

Carter (2003) illustrates how African-American students struggle to balance cultural capital of the dominant and minority group. While her work does not examine effects of cultural capital on school engagement, she does explore how cultural capital comes into play in the school system. Carter interviewed 44 African-American youth aged 13 to 20 from low-income families to ascertain how perceptions of race, ethnicity, and gender dictated their behavior at school and career aspirations. The interviews reveal that African-American youth draw cultural lines for expression and language between school, home, and “the street.” Dominant language is employed at school or in the workplace while using this type of language outside of formal institutions would lead to one being ridiculed by peers. Students reported struggling between pursuing socio-economic benefits by using dominant linguistic codes and seeking acceptance within the African-American community with the use of “black” cultural capital. The interviewees also described how students conforming to “black” cultural capital within the school

environment are ignored or sanctioned for their language, behavior, and dress (Carter, 2003).

After considering these three theories for use as a framework in my research on participation engagement, I decided Bourdieu and Passeron's theory of cultural and social reproduction was most suitable to the type of analysis I was undertaking and dataset I would be using. The Alienation theory seems more suited to a longitudinal study, since students who are already disengaged are not considered to be alienated. I believe the relationship between alienation and school engagement would best be studied as a process over time, which is beyond the scope of my research project. Further, this theory would require more extensive information about the school system in which the student is being educated, the classroom climate, and the teacher than could have been provided with the variables available in the NLSCY. Social bonding, on the other hand, could readily be studied using variables on peer relationships, teacher support, and parental involvement in education found in the NLSCY. However, this theory is more directly related to belonging engagement, rather than participation engagement, which is the type of engagement under study here. Economic and cultural capital are most easily studied using variables available in the NLSCY since the survey contains a variety of indicators measuring socio-economic status, participation in literacy activities, and interest in the youth's education and this theory is directly relatable to participation engagement.

2.2.1 Aboriginal Education

In addition to developing a theoretical framework under which to study school engagement, there are other historic factors that can add insight to the study of

participation engagement. To gain a better understanding of the young adolescents under study here, it is necessary to explain the context of Aboriginal education, immigration, and the structure and history of the Canadian school system. Each of these elements has a unique history in Canada that is different from the situations in other countries and could play an important role in determining school engagement.

The creation of section 91:24 of the British North America Act of 1867 established that the Canadian Government held a paternal responsibility for Aboriginal people. The list of responsibilities included, among other things, the education of Aboriginal children. The responsibility for Aboriginal education was soon delegated to various church denominations and residential schools were established across Canada, with the exception of New Brunswick and Prince Edward Island (Milloy, 1999). The history of residential schools is one rife with child labour, humiliation of students, loss of Native languages, poor sanitation, and physical and sexual abuse. Although Canada's last residential school closed its doors in 1988 and First Nations children have been "permitted" to attend public schools since 1951, the struggle for Aboriginal youth to obtain equal and culturally sensitive education is not over. Further, the negative educational experiences of the elder generations mean that some Aboriginal parents are not eager to become involved in their child's education (Friesen & Lyons, 2002).

Teachers of First Nations students often know little about Aboriginal history and traditions and sometimes experience difficulty in communication with their students (Friesen & Lyons, 2002). Taylor (1995) describes the challenges in communication between those who use high-context and low-context styles of exchange. While high-context communication, the style traditionally used by Native peoples, is characterized by

situational cues and little emphasis is placed on the spoken word, low-context communication, which is more Euro-centric, is highly verbal and explicit. The philosophy of Aboriginal education is based on the three “L’s”: looking, listening, and learning (Miller, 1996). This method of passing on knowledge is more informal and less structured than the typical Canadian classroom routine. At the post-secondary level, Aboriginal students are shown to respond better to teachers with a pedagogical approach centered on interpersonal relationships and caring rather than an orientation towards professionalism (Wilson, 1994).

Likewise, the community and family both influence the educational experience of Aboriginal youth. Schissel and Wotherspoon (2003) cite the lack of career and educational opportunities after high school as a reason why some students, including Aboriginal youth, disengage or drop out of school. Opportunities may be more limited in some types of communities, such as remote areas, than others. Those involved in Aboriginal education continue to look forward to the future. Beginning in 1972, with the adoption of a policy of “Indian control of Indian education”, the National Indian Brotherhood (now followed by the Assembly of First Nations) has sought to regain control of Aboriginal learning. This includes stronger cooperation between parents and schools, and increased involvement in the schools by parents, Elders, and other Aboriginal community members (Schissel & Wotherspoon, 2003).

2.2.2 History of Immigration

The history of Canadian immigration policy is rampant with discrimination. While in the very early years of settlement new arrivals of all walks of life were encouraged to come to Canada to “fill up” the country, this position on immigration did not last. Starting in 1872, criminals, paupers, and destitutes were forbidden from immigrating (Knowles, 2007). Between 1881 and 1884 an estimated 15, 700 Chinese males came to Canada to construct the Canadian Pacific Railway, but this flood of immigration was quickly stopped with a restrictive head tax of \$50 in 1885. The head tax continued to climb to discourage Chinese immigration, reaching \$500 in 1903 (Li, 1998). Around the same time, the Canadian Government sought out agriculturalists to farm the Prairies and labourers to work for railroad, mining, and lumber companies but denied entry to black farmers as the government wanted to distance themselves from the racial troubles brewing in the United States (Avery, 1995). Immigration Acts established in 1906 and 1910 further limited the immigration of visible minorities to Canada by decreeing the amount of money immigrants must have upon landing, levying taxes for immigration, allowing for deportation on political and moral grounds and barring the entry of, “immigrants belonging to any race deemed unsuited to the climate or requirements of Canada” (Canada, 1909-1910; 27:38:14). The year 1907 saw the immigration of Japanese citizens limited to 400 people per year after riots broke out in British Columbia based on fears of Japanese expansion in Canada. Likewise, the continuous voyage regulation of 1908 required that all immigrants come directly to Canada from their country of origin on a continuous journey. This eradicated immigration from India as there was no direct travel service available between the two countries and

further limited entry to Japanese people who had been arriving through Hawaii (Knowles, 2007).

Modifications to immigration policy in 1962 meant the elimination of racial discrimination from the immigration process. The decision to accept immigrants became based on education, skills, or other qualifications, a policy that more closely resembled the one in place today. During the 1970s, Canada saw the largest, best-educated group of immigrants it had ever received in the form of young, college-educated, middle-class men dodging the Vietnam War draft in the United States. The face of immigration continued to change during the 1980s with the increased arrival of people of Asian, Caribbean, Central and South American, Middle Eastern, and African ethnicity (Knowles, 2007).

Today, the Canadian immigration system accepts newcomers in four main classes: skilled workers, refugees, business, and family. Recently, legislature has been put forward to allow Citizenship and Immigration Canada to process applications more quickly for workers skilled in the types of jobs experiencing labour shortages in Canada (2008a). The selection of skilled workers is based on a points system with categories for education, fluency in English and/or French, work experience, age, arranged employment in Canada, and adaptability. Of great emphasis in the points-based system is education (Citizenship and Immigration Canada, 2008b). In 2005, immigrants in the family class represented 24.2% of all immigrants, while those in the skilled workers, business, refugees, and others comprised 54.5%, 5.1%, 13.6%, and 2.6%, respectively (Citizenship and Immigration Canada, 2005). As a result, the population of Canadians who are immigrants is more highly educated than non-immigrant residents. In 2006, about 32% of

landed immigrants who had been in Canada for less than five years had a bachelor's degree, while approximately 29% of those who immigrated 5 to 10 years ago and roughly 16% of Canadian born residents held the same qualification. Similar disparities are seen amongst those with education above a bachelor's degree: this level of education has been attained by only 5% of Canadian born residents but levels among Canadian immigrants range from about 17 to 20% (Zietsma, 2007).

2.2.3 Structure and History of the Canadian School System

The structure and history of the Canadian education system is also distinctive. Canada is the only industrialized country that has no federal office or department of education; instead, education is provincially controlled as prescribed under the British North America Act of 1867. The exceptions are federal departments who provide education or funding for education for children of members of the armed forces, inmates in penitentiaries, and First Nations youth living on reserve. Prior to the British North America Act, education was funded and run locally when property owners would meet, select trustees, and hire a teacher (Young & Levin, 1998). From the late 1830s to the 1850s, the topic of the centralization of education was hotly debated. The Reform party was against the centralization of education, while the Upper-Canadian Conservatives fought against "local ignorance" and wanted the administration of schooling to become centralized (Curtis, 1988).

The structure of the educational administration system is quite similar among the provinces and territories although schools in each province and territory have unique language and religious rights. Every province and territory has a central educational

authority in the form of a ministry or department of education, which decides on legislation brought forward to the provincial government, formulates educational policies, supervises the implementation of new policies, controls finances, sets curriculum and assessments, organizes special education, and is responsible for the renovations of schools. School boards are then responsible for setting individual school budgets with the monies allotted by the ministry of education, hiring personnel, and arranging for school transportation. Schools in British Columbia and Manitoba are non-denominational, while there are both public and separate school boards in Alberta, Saskatchewan, and Ontario and this division is protected by law. In New Brunswick, Nova Scotia, and Prince Edward Island, some Roman Catholic schools do exist in addition to the regular public schools, but these separate schools are not legally necessary. Quebec has some protected separate schools, but for the most part board divisions are by language. In Newfoundland, there are interdenominational school boards but the schools within a board can be either restricted to one denomination or be inter-denominational. Finally, in the territories, the decision to have denominational schools is an administrative decision at the school board level (Young & Levin, 1998).

Funding for education is provided through the provincial government (about 58% of funds) and local taxes. Previously, schools were funded through fees, property taxes, and church monies but now elementary and secondary education is provided free of charge to all students so that no student is prevented from attaining a basic education due to lack of funds. Revenue from the provinces comes mainly from money provided by the federal government. This influences how much money a province has to devote to the area of education. The federal government can provide up to 40% of a province's

revenues to ensure that all Canadians receive a set standard of social services (Young & Levin, 1998).

Chapter 3: Data and Methods

3.1 The Survey

The data for the analysis comes from the third cycle of the National Longitudinal Survey of Children and Youth, a nationally representative sample of non-institutionalized Canadian children and youth living in the ten provinces at the time of data collection. The NLSCY is a longitudinal survey that has been conducted by Statistics Canada and sponsored by Human Resources and Social Development Canada since 1994. The main goal of the NLSCY is to monitor the development and well-being of Canadian children from birth to adulthood. The NLSCY sample design is determined by the Labour Force Survey sample design and uses a stratified, multistage design employing probability sampling at all stages of the design. Primary strata are created by dividing each province into economic and employment insurance economic regions, which are both geographic areas of roughly the same size, but with different definitions. The intersections of these two types of regions form the primary strata, which are then classified into three types of areas: rural, urban, and remote. The secondary strata are created by dividing urban and rural areas based on population density and socio-economic characteristics. Finally, each stratum is divided into clusters, a sample of clusters is selected, and dwellings are sampled from the sampled clusters (Statistics Canada, 2001).

I chose this data set for several reasons. First, the NLSCY contains a wealth of information about the youth and his or her family and home life. Second, the data rely on multiple sources: information about the youth and the family is collected from the person

most knowledgeable about the child (PMK)², the youth's classroom teacher provides information about the youth's behaviour and work habits in the classroom, and the youth him or herself gives details about academic resources available in the home. Teacher reports of student engagement are stronger predictors of academic performance than student reports (Klem & Connell, 2004). Third, the survey covers young adolescents living in all ten provinces, leading to the possibility of results that can be generalized about the state of student engagement in Canada as a whole (Statistics Canada, 2001).

3.2 The Sample

The NLSCY consists of multiple birth cohorts. The longitudinal cohort (the cohort under study here) includes children who were aged 0-11 in 1994 and it is the only birth cohort that is followed beyond age 5. The longitudinal birth cohort can be used in cross-sectional analysis only up to the year 2000 since this birth cohort has never been topped up for immigrants, and it is no longer considered representative of the current population. Instead, the longitudinal cohort is representative only of young people who were aged 0-11 and living in Canada in 1994. Of the 6377 youth aged 10-15 who participated in cycle 3 (1998-1999), 3054 had responses provided to the teacher's questionnaire by their classroom or language teacher (approximately 48%). The survey weights take into account non-response such that the sample is nationally representative after the weights are applied (Statistics Canada, 2001). The education component

---

² The PMK is the person who is most knowledgeable about the child and is consequently the primary respondent to the survey. The PMK answers questions about themselves, their spouse, the child, and the household. Typically, the PMK is the mother, although it can also be the father or another family member.

(teacher-completed questionnaire) of the survey received a poor response rate in cycle 4 and estimates using a combination of variables from the education and primary (PMK completed) cycle 4 files are not reliable. Therefore, it was necessary to use data from cycle 3 in order to make use of the most recent cross-sectional data from the education, primary, and the youth self-completed files. A non-response analysis pertaining to the teacher's questionnaire at cycle 3 is presented and discussed later in this chapter.

3.3 Measures

School engagement Information on the dependent variable, school engagement, comes from 13 questionnaire items asked of the youth's classroom teacher or language teacher pertaining to participation, including questions about the youth's behaviour, work habits, and ability to work with other students. Principal components analysis of these 13 items was undertaken on cycle one NLSCY data by researchers at Statistics Canada. The sample of young adolescents with a response to the items was split in half to produce an exploratory sample and a confirmatory sample. The items were found to load on the same factor with a Cronbach's Alpha of 0.93 in the exploratory sample and 0.94 in the confirmatory sample, indicating acceptable internal consistency reliability (Norris et al., 2003). The 13 participation items were summed to create a scale with possible values ranging from 0 to 44, with a higher score indicating greater participation.³ The questions

---

³ Initially, I had intended to undertake an analysis of belonging at school as well, however after further reading and a primary analysis of the items intended to measure belonging, I determined that these items could not be used to construct a valid belonging scale. The items seemed to measure general social support or belonging and were not specific to the child's belonging in their school environment.

used to create the participation scale as well as the specific questions for items used as independent variables can be seen in Appendix A.

Gender Youth gender is measured as a dichotomous variable, with male coded 0 and female coded 1. The effect of gender on school engagement has been widely studied. The findings consistently reveal that gender is a significant predictor of engagement with female students having higher levels of engagement than male students (Berends, 1995; Finn, 1993; Johnson et al., 2001; Willms, 2003; Woolley & Bowen, 2007).

Age This is a continuous variable and is defined as the youth's age in years. This variable is based on the concept of effective age (year of the survey minus year of birth). This study is focused on youth aged 10-15 years at cycle 3. The effect of age on school engagement has been found to be significant in several studies where students from a range of ages were included in the research project. Overall, younger students have been found to be more engaged than older ones (Johnson et al., 2001; Woolley & Bowen, 2007).

Immigration and minority status The youth's immigration and minority status is a categorical variable that has 5 groupings: Canadian-born White, Aboriginal, Canadian-born visible minority, immigrant White, and immigrant visible minority.⁴ It is important to note that the NLSCY does not sample Aboriginal youth living on reserve; therefore, any findings about the school participation of Aboriginal youth apply only to off-reserve youth living in one of the 10 provinces. The NLSCY does not specifically target any

---

⁴ Initially, I had intended to include the child's ethnicity as an independent variable in the regression; however, many of the ethnic groups were small in size, so the decision was made to categorize the children according to their minority status.

ethnic group, so interpretation of findings needs to take into account the sample sizes for each population group. As almost all of the young adolescents sampled for the NLSCY in 1994 were born in Canada, the immigration portion of this variable is based upon the PMK's immigration status: whether he/she has ever been a landed immigrant. As is the case with gender, the effect of ethnicity on school engagement has been studied extensively. The conclusions reached by various researchers in the United States about the differences in engagement among youth of different ethnic groups are not always consistent. Some researchers find that while ethnicity does matter, the impact of ethnicity is not statistically significant once measures of social capital are taken into account (Woolley & Bowen, 2007). Other researchers conclude that Asian and White young adolescents have higher school participation than Black and Hispanic youth (Finn, 1993). Still other researchers find that African-American students are more engaged than White or Hispanic youth (Johnson et al., 2001). To this end, it is especially important to get a sense of the impact of minority and immigration status on school engagement among Canadian youth.

Family Structure Family structure is a categorical variable with three possible responses: intact, step/blended, or single-parent. A youth lives in an intact family if he/she is the natural or adopted child of both adults. A youth is a member of a step or blended family when he/she lives with a married or common-law couple and he/she is the biological or adopted child of one of the parents but not the other. Youth in the single parent group live with only one parent. Most NLSCY youth live in intact families, and this category is used as the reference group for comparison in the analysis. Young people living in intact families have been found to have higher engagement than those who do

not live in intact families (Johnson et al., 2001). Other than the work of Johnson and her colleagues (2001) the effect of family structure on school engagement has been neglected in previous research. Still, family structure has been shown to be related to child academic outcomes and overall child well-being with children in intact families faring better academically and emotionally (Cavanagh et al., 2006; Adams & Ryan, 2000). For this reason, I thought it was important to include family structure as one of the demographic control variables.

PMK's Age PMK's age is a continuous variable measured in years. The effect of parental age on school engagement has not been examined in previous research. Age can be expected to be positively associated with higher education and income.

Community Size Community size is a dichotomous variable with rural coded 0 and urban coded 1. Dropout rates vary across Canada along the rural-urban divide. During the 2004-2005 school year, the national rural dropout rate was 16.4%, while within Census Metropolitan Areas and Census Agglomerations the rate was 9.2% (Bowlby, 2005). Since dropout can be one of the results of school disengagement, I believe it is important to examine rural-urban differences in school engagement.

Siblings Number of siblings is a continuous variable that takes into account the number of siblings the youth has that live in the same household. Previously, sibship size has not been taken into account when examining school engagement. However, the number of siblings in a household has been shown to have an inverse effect on educational performance since parental resources are diluted when they are shared amongst more children (Downey, 1995).

Region of residence The provinces of Canada were divided into regions: Atlantic (Prince Edward Island, Nova Scotia, Newfoundland, and New Brunswick), Quebec, Ontario, Prairies (Manitoba, Alberta, and Saskatchewan), and British Columbia. This division of provinces has been used by other researchers working with NLSCY data (Canadian Council on Social Development, 1997; Department of Justice, 2004; Thomas, 2004). Ontario was the reference group for the regression analysis. Given the diverse school structures and the two official languages used in instruction in various provinces it seems worthwhile to examine whether there are differences in school engagement by region of residence.

Household Income It includes income from all sources and all household members before taxes and deductions. Income was first adjusted for household size by dividing the household income by the square root of the number of people living in the household. The resulting income variable was then divided into quartiles. The creation of income quartiles was done to address the issue of non-linearity, since the degree impact of economic resources may vary from one income level or dollar amount to another. The lowest income quartile served as the reference group for the regression analysis. Socio-economic status (SES) has been used as a control variable in multivariate analysis of school engagement with the finding that SES contributes significantly to school engagement (Marks, 2000).

PMK's Highest Level of Schooling PMK's highest level of schooling is a categorical variable with 3 possible responses: less than high school, high school completion, and post-secondary completion. Johnson et al. (2001) found that parental education was not a

significant predictor of school engagement. Parental education is often used as a proxy for cultural capital, although some theorists argue that using parental education alone to measure cultural capital is insufficient (Sullivan, 2001). For this reason, other measures of cultural capital are used in addition to parental education to see if the relationship between school engagement and youth immigration and minority status is mediated by other indicators of cultural capital.

The following variables are used to measure cultural capital through the everyday cultural activities in which the PMK participates and the resources he or she makes available to the youth to demonstrate the importance of school. Similar indicators have been used in studies of school achievement (Downey, 1995) and in research projects testing theories of social and cultural capital (De Graaf et al., 2000; Woolley & Bowen, 2007). Using these types of variables to measure cultural capital ensures that the theory is relevant to North American society, as opposed to more traditional measures of cultural capital (theatre attendance, for example) which are not as culturally relevant.

Youth Has a Place to Study/Do Homework at Home How often the youth has a place to study or do homework at home is a categorical variable with five possible responses: never, rarely, some of the time, most of the time, and all of the time. This variable was recoded into a smaller categorical measure with never, rarely, and some of the time blended to form a “not usually” category while the remaining two responses were left alone. The “not usually” category became the reference category against which the other responses were compared.

Youth Has Access to a Computer at Home Whether the youth has access to a computer at home is a dichotomous variable coded 1 for yes and 0 for no.

Reference resources PMKs were asked if they had in their home: a set of encyclopedias and a dictionary. These were dichotomous variables with yes coded 1 and no coded 0.

The two variables were combined to create an index measuring educational resources available in the home. Similar indicators have been used as control variables in studies of child academic achievement (Downey, 1995).

Cultural Activities PMK's frequency of reading books and frequency of reading the newspaper are categorical variables that originally had six response categories ranging from daily to never. The two variables were combined to create a cultural activities scale, with higher values representing greater participation in there before mentioned activities.

Frequency of PMK's Library Use This variable originally had six response categories ranging from daily to never. The categories are combined to create a dichotomous variable with categories of "often" and "not often". PMKs who reported using the public library several times a year or more were classified under "often" (coded 1), while those who used the library only once or twice a year or never were grouped into the "not often" category (coded 0). This variable, along with the cultural activities scale, is used as a measure of cultural capital, as similar indicators have been used to gauge this concept in other studies (De Graaf et al., 2000; Sullivan, 2001).

Importance of Youth's Grades to PMK The importance that the PMK places on the youth getting good grades is a categorical variable that originally had four response

categories: very important, important, somewhat important, not important at all. The variable was recoded into a dichotomous variable with “very important” and “important” combined to create an “important” category (coded 1) and responses of “somewhat important” and “not important at all” added to generate a “not very important” category (coded 0).

3.4 The Statistical Method

Given that the dependent variable of interest, participation, is an interval-ratio level index, ordinary least squares (OLS) regression was selected as the most appropriate method of analysis. To answer the research questions, “Does immigration and visible minority status impact a youth’s school participation?” and “Does this impact continue even after controlling for demographic and socioeconomic factors and measures of capital?” regression is the most suitable method. The questions are broad, seeking evidence for an association between immigration and minority status and academic engagement as well as possible mediation by demographic and socioeconomic characteristics and types of capital. Using the OLS method, I will be able to study the relationship between demographic characteristics, socioeconomic factors, capital and participation. This method shows how one independent variable (gender, for example) affects the dependent variable (school participation) while holding other independent variables constant. This method allows the inclusion of multiple independent variables.

Ordinary least squares are used to estimate the parameter of the regression equation

$$Y' = a + b_1X_1 + b_2X_2 \dots + b_kX_k + e.$$

Here, Y' is the observed school engagement score where $b_1, b_2, \dots, b_k$ are regression coefficients associated with the independent variables $X_1, X_2, \dots, X_k$ and e is the error or residual. The regression coefficients are estimated such that they minimize the sum of squared residuals between the observed and predicted dependent values. Multiple regression provides an estimate of the magnitude of the effect of the independent variable(s) on the dependent variable, controlling for other variables in the model. A positive or negative unstandardized coefficient (b) is produced for each independent variable that indicates how the dependent variable will change with a 1-unit alteration in the independent variable, holding other variables constant. This also holds in the case of dummy variables, such as gender. For instance, when regressing school engagement on gender (with males coded 0 and females coded 1), a regression coefficient of 0.5, means that females, on average, score 0.5 higher on the school engagement scale than males, holding other variables constant.

Likewise, multiple regression produces standardized coefficients (β) that can be used to infer the relative importance of one independent variable over another. Standardizing coefficients involves transforming each variable so that the coefficient presented represents the change (measured in standard deviations) in the response for each one standard deviation change in the predictor variable, controlling for other variables. This process allows for the comparison of variables measured in different units. The coefficient of determination, R^2 , gives the proportion of variability in school engagement that is explained by the independent variables in the model.

3.5 Analytic Approach

In this thesis, I examine disparities in school engagement by immigration and minority status using six regression models. The first regression model shows differences in school engagement between each of the immigration and minority groups (Aboriginal, Canadian-born visible minority, immigrant White, and immigrant visible minority) and the reference category of Canadian-born White youth, controlling for demographic variables that describe the characteristics of the youth, including gender and age. The second model adds measures about the PMK and the youth's family such as the family structure, the PMK's age, the size of the community in which the youth resides, the number of siblings the youth has, and the youth's region of residence. The third model includes information on economic resources, namely education and household income. The fourth, fifth, and sixth models add variables that measure various types of capital: study space in the home, educational objects in the home, frequency the PMK participates in everyday cultural activities, frequency the PMK visits the public library, and importance that the PMK places on the youth getting good grades. This is similar to the approach taken by Woolley and Bowen (2007) who conducted their regression on school engagement in three blocks, one each for demographics, risk exposure, and social capital.

3.6 Distribution of the Variables

The distribution of both the dependent and independent variables are presented in Table 1. As can be seen from this table, the majority of youth for whom responses are available to the NLSCY teacher's questionnaire at cycle 3 are Canadian-born white youth

from intact families who have relatively well-educated PMKs. Still, there exists a reasonable sized sample of young adolescents from other immigration and ethnic backgrounds with who to make comparisons, as almost 20% of the sample is not of Canadian-born white background. The mean score on the teacher-rated participation index, 32.6, is fairly high, indicating that teachers rated the youth as quite engaged based on behaviour, work habits, and ability to work with other students.

Table 1: Distribution of the Variables Used in the Regression Analysis

Variable Name	Description	Metric	Mean/ Percentage (S.E.)
<i>Demographic</i>			
Youth gender		0=male 1=female	50.2 49.8
Youth age	Youth's effective age (year of survey minus year of birth).	Years	12.3 (0.05)
Youth's minority/immigration status	Group that best describes the youth's race or colour and immigration status of the PMK. This variable is recoded into dummy variables with Canadian-born white as the reference group in the regression analysis.	Canadian-born white Aboriginal Canadian-born visible minority Immigrant white Immigrant visible Minority	81.0 1.8 1.5 9.0 6.7
Family structure	Type of family to which the youth belongs. This variable is recoded into dummy variables with intact family as the reference group in the regression analysis.	0=intact family 1=blended/step family 2=single parent Family	71.8 10.0 18.4
PMK's age		Years	40.4 (0.17)
Community size	Size of the community in which the youth resides. This variable is recoded into dummy variables with rural as the reference group in the regression analysis.	Urban Rural	84.3 15.7
Siblings	Total number of siblings (of the youth) living in the household		1.4 (0.03)
Region	Region of Canada in which the youth resides. This variable is recoded into dummy variables with Ontario as the reference group in the regression analysis.	Atlantic Quebec Ontario Prairies British Columbia	10.4 19.8 35.3 21.8 12.7

Variable Name	Description	Metric	Mean/ Percentage (S.E.)
PMK's highest level of schooling	Highest level of schooling the PMK has attained. This variable is recoded into dummy variables with post-secondary completion as the reference group in the regression analysis.	Less than high school	12.3
		High school completion	47.2
		Post-secondary Completion	40.5
<i>Economic Resources</i>			
Household income quartile	Total household income from all household members and all sources, before taxes and deductions divided by the square root of the number of people in the household. The income distribution was then divided into quartiles and dummy variables were created for the regression analysis with the lowest income quartile as the reference category.	High income	58863.4 (2139.2)
		Mid-high income	32155.6 (149.9)
		Mid-low income	22424.3 (150.5)
		Low income	11922.1 (226.9)
Study space in home	How often the youth has a space to study or do homework in the home. Never, rarely, and some of the time are categorized as "not usually", while other responses retain their original categories.	Not usually	10.1
		Most of the time	14.1
		All of the time	74.6
		No homework	1.2
Computer in the home	Whether or not the youth has access to a computer at home.	1=yes	23.5
		0=no	76.5
<i>Cultural Capital</i>			
Reference resources	Summed score of responses to the presence of a set of encyclopedias in home and a dictionary in home.	Sum of items.	1.7 (0.01)
Cultural activities	Summed score of responses to the frequency of reading books and daily newspapers.	Sum of items.	7.8 (0.06)
How often PMK visits the library	Responses of daily to several times a year are classified as "often" while once or twice a year and never are categorized as "not often."	Often	57.9
		Not often	42.1
Importance of grades	Responses of "very important" and "important" are categorized as "important", while "somewhat important" and "not important" are classified as "not very important"	0=important	93.2
		1=not very important	6.8
<i>Participation</i>			
Participation score	Summed score of 13 items related to youth's behaviour, work habits, and ability to work with other students.	Sum of items.	32.6 (0.22)

Source: National Longitudinal Survey of Children and Youth, 1998

3.7 Non-Response Analysis

Overall, response to the teacher's questionnaire was relatively low. Once the data was weighted, the response rate for the participation items was approximately 44%.⁵ The NLSCY user guide suggests that garnering response to the teacher's questionnaire was difficult due to multiple layers of permission that had to be sought for the questionnaire to be completed. First, written permission to allow collection of information about the youth from the teacher had to be given by the PMK. Next, the school board of each youth had to be contacted and had to agree to participate in the survey. Finally, the questionnaire was mailed to the teacher for completion. These different levels of permission for participation led to possible dropout from the teacher's questionnaire at three different points in time. I undertook a non-response analysis to gain a better understanding of the differences and similarities between respondents and non-respondents. Here, *respondents* are youth for whom a classroom or language teacher provided responses to the participation scale items, while *non-respondents* are youth whose teacher did not provide answers for these items (the teacher may have responded to some sections of the teacher's questionnaire, but he or she did not answer the items used to build the participation index).

---

⁵ Response rates in this range are not uncommon. For example, another survey of professionals, the 2004 National Physician Survey, had a national response rate of 35.85% (Canadian Institute for Health Information, 2005). Similarly, the Fall 2002 Survey of First Nations People Living On-Reserve achieved a response rate of 49.5% (Indian and Northern Affairs Canada, 2004).

Table 2: Non-Response Analysis

Variable	Percentage/mean for youth with a response to the teacher's file	Percentage/mean for youth without a response to the teacher's file	F or t value (p-value)
Youth's age			
10 years	21.9	16.0	14.73 (0.0001)
11 years	15.0	12.1	4.91 (0.0267)
12 years	20.7	17.5	4.59 (0.0322)
13 years	13.0	13.4	0.10 (0.7564)
14 years	17.1	21.6	7.97 (0.0048)
15 years	12.3	19.5	22.47 (0.0000)
Youth's gender			
Male	50.1	52.3	1.22
Female	49.9	47.7	(0.2699)
Youth's minority and immigration status			
Canadian-born white	81.0	80.2	0.16 (0.6926)
Aboriginal	1.8	1.7	0.03 (0.8675)
Canadian-born visible minority	1.5	1.5	0.00 (0.9935)
Immigrant white	9.0	9.0	0.08 (0.7730)
Immigrant visible minority	6.7	8.0	0.75 (0.3857)
Family structure			
Intact family	71.8	70.0	1.08 (0.2979)
Blended/step family	9.8	10.1	0.04 (0.8456)
Single parent family	18.4	20.0	1.09 (0.2963)
PMK's age (mean)	40.4	40.9	5.73 (0.0167)
Community size			
Rural	15.7	13.4	5.15
Urban	84.3	86.6	(0.0232)
Number of siblings (mean)	1.4	1.4	3.12 (0.0776)
Region of residence			
Atlantic	10.4	6.2	48.92 (0.0000)
Quebec	19.8	24.6	8.27 (0.0040)
Ontario	35.3	39.3	3.88 (0.0489)
Prairies	21.8	16.8	17.09 (0.0000)
British Columbia	12.7	13.1	0.07 (0.7952)
PMK's highest level of schooling			
Less than high school	12.3	13.8	1.46 (0.2275)
High school complete	47.2	46.0	0.39 (0.5302)
Post-secondary complete	40.5	40.2	0.03 (0.8642)
Income quartile			
High income	25.7	24.4	0.56 (0.4556)
Mid-high income	25.0	25.0	0.00 (0.9693)
Mid-low income	26.0	24.2	1.30 (0.2542)
Low income	23.3	26.4	3.34 (0.0677)

Variable	Percentage/mean for youth with a response to the teacher's file	Percentage/mean for youth without a response to the teacher's file	F or t value (p-value)
Youth has a place to study	10.1	9.8	0.04 (0.8481)
Not usually	14.1	16.2	1.79 (0.1816)
Most of the time	74.6	72.4	1.43 (0.2316)
All of the time			
Youth has no homework	1.2	1.6	0.99 (0.3204)
Youth has access to a computer at home			
No	76.5	75.0	0.78
Yes	23.5	25.0	(0.3778)
Reference resources (mean)	1.7	1.7	1.36
			(0.2441)
Cultural activities (mean)	9.7	9.6	0.20
			(0.6557)
How often PMK uses the library			
Often	57.9	54.6	2.95
Not often	42.1	45.4	(0.0859)
Importance of grades			
Important	93.2	93.5	0.13
Not very important	6.8	6.5	(0.7229)

Source: National Longitudinal Survey of Children and Youth, 1998

The results of the non-response analysis indicate that respondents and non-respondents are similar in many respects (see Table 2). No statistically significant differences in response were found based on youth's gender, youth's immigration and minority status, family characteristics, or cultural capital indicators. Differences were found in response by province, with a high proportion of non-respondents among the highly populated provinces of Ontario, and Quebec (youth in Ontario comprised 35.3% of respondents but 39.3% of non-respondents while students in Quebec were 19.8% of respondents but 24.6% of non-respondents). The NLSCY team also noted high overall non-response to the teacher's questionnaire in Ontario and Quebec, possibly due to a low teacher return rate. While the teacher questionnaire return rate was average in British

Columbia, the NLSCY team suggests that low response may have been due to a lower school board consent rate (Statistics Canada, 2001).

Differences in response were also found by the youth's age. Response to the participation items seems to have dropped as the youth's age increased, even though the return rate of the questionnaire was quite similar across these age groups. While it is not possible to know exactly why there is a difference in response by the youth's age, I can speculate that teachers of older students may spend less time with specific students due to larger class sizes and different teachers teaching each subject in the older grades. A teacher who has not spent a lot of time with a student may feel ill-equipped to answer questions about the youth's behaviour and work habits (items measured for participation) but could more readily obtain information about academic performance (items measured in other parts of the teacher's questionnaire) from student files available at the school.

A slight variation was discovered in the mean age of PMKs of respondents versus non-respondents, with the mean age being about half a year older for the PMKs of non-respondents. The final difference in response is by community size. Young adolescents living in urban communities have slightly higher non-response than youth from rural communities (urban youth represent 84.3% of respondents but 86.6% of non-respondents). The discrepancy in response by community size could be a reflection of the difference in response seen at the provincial level since the provinces with more highly populated, urban areas (Ontario, Quebec, and British Columbia) had lower response.

Although non-response to the participation items on the teacher's questionnaire was high the NLSCY still provides the most complete source of national data on school

engagement among preteens and young teenagers. While the results of this research project will have to be interpreted with caution for the discrepancies in response, there remains a moderately sized sample from which to gain insight on the link between youth's gender and immigration and minority status and school engagement, as well as the relationship between cultural capital and school engagement.

Chapter 4: Findings

This chapter presents findings related to participation engagement and demographic, economic, and capital characteristics of the youth and his/her family. The first section examines the distribution of each independent variable in close detail depending upon the PMK's immigration and the youth's minority status. This lends a better understanding of how the distribution of each independent variable varies by immigration and minority status. This information will provide crucial insight on background patterns when interpreting the multivariate regression results. Following is a presentation of the results of the multivariate, stepwise regression models.

Before discussing the results, the aim of this research project should be re-stated. I am seeking to examine how school participation among Canadian students aged 10 – 15 years differs by gender and minority and immigrant status and to what extent any differences can be explained away by other factors such as parental education, income, and cultural capital. I would like to find out if substantial differences in school engagement are due only to gender and ethnic differences or whether family characteristics and resources account for some or all of the differential levels of school engagement.

4.1 Bivariate Descriptive Statistical Analysis

Tables 3 and 4 show the relationships between the immigration and minority status variable and the other independent variables used in the multivariate analysis. Each immigration and minority status is presented along with the individual distribution of

each independent variable according to the youth's population group. Table 3 provides information on independent variables that can be measured in proportion, for example, the proportion of male and female youth in each population group, while Table 4 provides similar information for independent variables that have scores, such as the mean age of students in each population group.

Across the minority and immigration status groups, the mean youth age is fairly similar, with the Aboriginal and white immigrant groups sharing the highest mean youth age at 12.6 years and Canadian-born visible minority youth having the lowest mean age at 11.8 years. A similar pattern is seen in the PMK's mean age, with PMKs of Canadian-born visible minority students being younger overall (11.8 years versus 12-12.6 years in the other groups). More noticeable differences occur in the distribution of young adolescents by gender. While the distribution of male and female youth is almost exactly equal amongst Canadian-born white youth, there are a greater proportion of Aboriginal and Canadian-born visible minority female youth than male youth by almost one third. On the contrary, amongst both white and visible minority immigrant youth the proportion of males slightly exceeds that of females (53.6% and 54.1% male).

Table 3: Distribution of Independent Variables as a Percentage by Immigration and Minority Status

Independent Variables (Percentage Distribution)	Immigration and Minority Status				
	Canadian-born white	Aboriginal	Canadian-born visible minority	Immigrant white	Immigrant visible minority
<i>Youth gender</i>					
Male	50.3	36.1	35.7	53.6	54.1
Female	49.7	64.0	64.4	46.4	45.9
<i>Family structure</i>					
Intact family	71.5	53.2	51.4	84.6	73.9
Blended/step family	10.7	6.1	21.4	3.7	9.5
Single parent family	17.8	40.7	27.2	11.7	16.6
<i>Community size¹</i>					
Rural	18.3	15.1	5.3	7.0	0.0
Urban	81.7	84.9	94.7	93.0	100.0
<i>PMK's schooling</i>					
Less than high school	12.8	20.0	24.2	6.9	9.7
High school complete	47.4	52.2	59.8	39.9	44.5
Post-secondary complete	39.8	27.8	16.0	53.2	45.8
<i>Income quartile</i>					
Low income	20.3	50.8	32.1	14.3	48.0
Mid-low income	25.9	16.4	26.9	30.3	29.4
Mid-high income	27.3	9.8	41.0 ²	18.0	15.4
High income	26.5	23.1		37.4	7.3
<i>Access to a computer at home</i>					
No	75.9	57.5	80.8	86.7	75.3
Yes	24.2	42.5	19.2	13.3	24.7
<i>PMK's use of library</i>					
Not often	44.2	49.1	41.8	19.8	37.6
Often	55.8	50.1	58.2	80.2	58.4

Source: National Longitudinal Survey of Children and Youth, 1998

¹ As well, there is multicollinearity in the analysis between the youth's immigration and minority status and the size of the community in which the youth resides. Only one category of youth, visible minority immigrant, is affected

² This percentage represents youth in both the high and mid-high income quartiles. The two top quartiles were combined for Canadian-born visible minorities since the number of youth in each quartile was too small to report alone.

Table 4: Distribution of Independent Variables as a Mean by Immigration and Minority Status

Independent Variables (Mean)	Immigration and Minority Status				
	Canadian-born white	Aboriginal	Canadian-born visible minority	Immigrant white	Immigrant visible minority
<i>Youth age</i>	12.3	12.6	11.8	12.6	12.0
<i>PMK's age</i>	40.0	41.2	37.9	42.5	42.5
<i>Siblings</i>	1.4	1.1	1.5	1.5	1.9
<i>Reference resources</i>	1.7	1.5	1.8	1.6	1.5
<i>Cultural activities</i>	7.8	7.3	8.7	8.0	7.6

Source: National Longitudinal Survey of Children and Youth, 1998

While intact families constitute the most common family status in all ethnic and minority statuses, many Aboriginal and Canadian-born young adolescents are also living in single parent families (40.7% and 27.2%). Most Canadian youth sampled for the NLSCY live in urban areas, although Canadian-born white and Aboriginal youth (18.3% and 15.1%) seem more likely to be living in a rural area than Canadian-born visible minority or immigrant youth (5.3%, 7.0%, and 0%). While the majority of PMKs have high school completion as their highest level of schooling, the selectivity of Canada's immigration system is noticeable in that immigrant PMKs have higher rates of post-secondary completion (45.8-53.2%) than other non-immigrant parents (16-39.8%).

The distribution of income varies widely. Canadian-born white youth are fairly evenly distributed between the income quartiles, with a smaller proportion resting in the bottom quartile (20.3%) and a larger proportion in the top quartile (26.5%). In sharp contrast, more Aboriginal youth are located in the bottom income quartile (50.8%) than any other position. Within the Canadian-born visible minority group a higher proportion of young adolescents reside in the two lowest income groupings (59%) than the two

highest income levels (41%). The children of white immigrant parents appear to live in families that are financially rewarded for high levels of post-secondary completion since more than a third (37.4%) are sitting in the highest income quartile. On the contrary, visible minority immigrant youth are most likely to be located in the lowest income quartile (48%) and have the lowest percentage of any immigration and minority status group in high income (7.3%).

Looking at the indicators related to capital, differences by immigration and minority status are apparent in some instances and negligible in others. In all cases, the majority of youth did not have access to a computer at home.⁶ The percentage of youth with computers at home was highest amongst Aboriginal youth (42.5%) and lowest for white immigrant youth (13.3%). The mean score on reference resources was very similar for all immigration and minority status groups. Likewise, the mean cultural activities score is comparable across the groups, although it peaks for Canadian-born visible minority youth (8.7 for Canadian-born visible minorities versus 7.3-8.0 for the other groups). The proportion of PMKs who visit the public library often is highest for white immigrants (80.2%) and lowest for Aboriginal youth (50.1%).

Table 5 shows the distribution of ethnicity amongst youth of visible minority status. Visible minority youth whose PMK is Canadian-born are mainly of Asian (44.8%) or Black ethnicity (15.3), with small numbers of youth being identified as Arab/West Asian, Filipino, Korean, and unidentified ethnicities (39.9%). This is consistent with the

---

⁶ The data under study was collected in 1998-1999 and having a computer in the home was not as common as it is today.

pattern of immigration between initial settlement and the introduction of the points system in 1967. At this time, non-white immigrants hailed mainly from China and the Caribbean. The ethnic distribution of visible minority youth with an immigrant PMK is more diverse. There are a growing proportion of young adolescents of South Asian (25.5%) and South East Asian (9.5%) origin, as well as a more sizeable number of youth of Arab/West Asian (8.6%) and Filipino (4.8%) ethnicity. This reflects the changing pattern in immigration in more recent years.

Table 5: Distribution of Ethnicity amongst Visible Minority Youth

Canadian-born visible minority		Immigrant visible minority	
Ethnic group ¹	Percentage	Ethnic group	Percentage
Asian ²	44.8	Chinese	21.2
Black	15.3	South Asian	25.5
Other ³	39.9	Black	11.3
		Arab/West Asian	8.6
		Filipino	4.8
		South East Asian	9.5
		Other ⁴	19.2

Source: National Longitudinal Survey of Children and Youth, 1998

¹ Ethnic groups have been combined where sample sizes are too small to report alone.

² "Asian" includes youth whose ethnicity was identified as Chinese or South Asian

³ "Other" includes youth whose ethnicity was identified as Arab/West Asian, Filipino, Korean, or Other

⁴ "Other" includes youth whose ethnicity was identified as Latin-American or Other

4.2 Step-Wise Regression Results: Participation and Demographic Characteristics

Table 6 summarizes results from the multivariate regression analysis that consisted of three models: youth characteristics, family and geographic characteristics, and economic characteristics. Using this method of dividing the analysis into stages allows us to see how the addition of different types of characteristics changes the regression coefficients and adds to the variation in participation that can be explained by

the model. The unstandardized coefficients depicted in the models represent how the dependent variable, school participation, will change with a 1-unit alteration in the independent variable, holding other variables constant (b).

Table 6: Regression Models of Participation Engagement and Youth, Family, and Economic Characteristics

Variable	Model 1: Youth characteristics		Model 2: Family and geographic characteristics		Model 3: Economic characteristics	
	b	S.E.	b	S.E.	b	S.E.
Constant	29.5***	1.5	26.2***	2.0	26.9***	2.0
Youth age	.06	.1	-.04	.1	-.03	.1
Female	5.1***	.4	5.2***	.4	5.2***	.4
<i>Immigration and minority status</i>						
Aboriginal	-4.9***	1.4	-3.3**	1.3	-2.8*	1.3
Canadian-born visible minority	-1.6	2.7	-1.2	2.2	-.7	2.2
White immigrant	2.4**	.8	1.4 [†]	.8	1.4 [†]	.8
Visible minority immigrant	3.1**	1.2	2.5*	1.1	2.9*	1.1
Minority status missing	-2.8*	1.2	-2.5 [†]	1.3	-2.3 [†]	1.3
Blended/step family			-4.1***	.6	-4.0***	.6
Single parent family			-4.9***	.6	-4.3***	.6
PMK's age			.1**	.04	.08 [†]	.04
Urban			.5	.4	.1	.4
Siblings			.3 [†]	.2	.4*	.2
Atlantic			.6	.5	.9 [†]	.5
Quebec			1.3*	.6	1.5*	.6
Prairies			.2	.5	.3	.5
British Columbia			.7	.8	.7	.8
<i>Highest level of schooling completed</i>						
Less than high school					-2.1***	.6
High school graduation					-1.1*	.4
<i>Income quartile</i>						
High income					1.1 [†]	.7
Mid-high income					1.4*	.6
Mid-low income					1.3*	.6
Number of cases	3054		3008		3007	
R ²	0.1159		0.1904		0.2020	

Source: National Longitudinal Survey of Children and Youth, 1998

[†] p < .1   * p < .05   ** p < .01   *** p < .001

Reference categories are male, Canadian-born White, intact family, rural, Ontario, post-secondary completion, and low income

4.2.1 Effects of Youth Characteristics

The model 1 takes into account only characteristics of the youth, including the youth's age, gender, and immigration and minority status. Of these three variables, the effects of gender and immigration and minority status are significant while the youth's age is not. Gender holds the most predictive power in determining school engagement. Here, female youth are predicted to score about five points higher on the participation index than the reference group of males. This seems in line with the findings of other researchers on gender and school engagement, as females have consistently been found to be more engaged than males (Finn, 1993; Johnson et al., 2001; Willms, 2003; Woolley & Bowen, 2007). Compared to Canadian-born white youth (the reference group), Aboriginal youth score lower on engagement. The negative effect for Canadian-born visible minority youth is not statistically different from the reference group; however, this may be due to the small sample size of Canadian-born minority youth (they comprise the smallest population group under study here). Likewise, those young adolescents for whom either no ethnicity or no immigration status was reported are also predicted to score lower on participation. In contrast, both immigrant groups were predicted to score several points higher on engagement than the reference group. This could be due to the high levels of education among immigrant parents and parental encouragement for academics. These findings provide unique insight into how school engagement varies by immigration and ethnicity. While I suspected that there would be differences in engagement due to the documented differences in educational achievement among Canadian youth by immigration and ethnic background (Thiessen, 2007) the tangible

variations in school participation contribute to general knowledge of school behaviours within different groups of Canadian students.

4.2.2 Effects of Family and Geographic Characteristics

The second model of the regression adds indicators of family and geographic characteristics such as family structure, the PMK's age, the size of the community in which the youth resides, and the youth's region of residence. Before discussing the effects of the family and geographic indicators it is worthwhile to note the changes that occur in the youth characteristics. An increase in youth's age now causes a negative change in engagement, although the actual change remains miniscule and the effect is not significant. This finding does not confirm the results of previous research indicating that youth's age has a significant negative effect on school engagement (Johnson et al., 2001; Woolley & Bowen, 2007). This may be due to the difference in age from one study to another, or the wider range of ages under study here. The youth in Johnson et al.'s study were in grades 7-12 while the students in Woolley and Bowen's research were in grades 6-8, compared to young adolescents aged 10-15, or approximately grades 5-10 under study here. The effect sizes for each of the immigration and minority status groups decrease, especially for Aboriginal youth. In the Aboriginal group, the predicted deduction in engagement is lessened by about 1.5 points. There seems to be early evidence indicating that family characteristics can explain some of the variations in school engagement by immigration and minority status.

Compared to young adolescents from intact families, youth living in step or blended families and single parent families fare worse in school engagement. This finding supports the work of Johnson et al. (2001), who showed that youth from intact, two biological parent, families fare significantly better on school engagement than youth from other types of families. My finding is important as I distinguished two types of non-intact families, step or blended and lone parent, and found that youth from both of these types of families have different outcomes than youth from intact families. In addition, youth with older PMKs are predicted to be more engaged. This is most likely because older PMKs have greater resources to provide a youth due to higher levels of education and income. A 10-year increase in the PMK's age results in a full-point augmentation of the youth's engagement score. Similarly, for each sibling a youth has that lives in the same household, there is a small but significant increase in the participation score. Perhaps this is due to the fact that some resources, such as books or a computer can be shared between many children, or maybe youth from larger families receive academic encouragement from both their parents and their siblings. Young adolescents residing in urban areas are predicted to be slightly more engaged than youth from rural areas, although this finding is not significant. All regions of Canada surpass Ontario in terms of predicted school engagement although this difference is only statistically significant between Quebec and Ontario.

4.2.3 Effects of Economic Characteristics

The third model of the regression includes the addition of indicators measuring economic characteristics like the PMK's highest level of schooling and the income quartile in which the family is located. Again, it is important to note the changes that occur in the youth, family, and geographic characteristics after the addition of economic variables. In comparison to the reference group of Canadian-born white youth, the coefficients for Aboriginal (significant difference from the reference group) and Canadian-born visible minority students (non-significant) continue to shrink, while the effect for white immigrant youth remains the same and the effect for visible minority immigrants rises slightly. In addition, the effect for those youth without an identified immigration and minority status declines slightly. This gives further evidence that economic factors, in addition to family characteristics, play a role in explaining differential levels of school engagement amongst the population groups. The outcome for young adolescents in single parent families improves to a small extent and likewise, the effects for siblings. Compared to students living in Ontario, those residing in the Atlantic region demonstrate a small, but significant increase in school engagement. Further, students living in Quebec show small increases in participation engagement when compared to youth living in Ontario.

Youth whose PMK has not completed high school score roughly two points lower on school engagement than those whose PMK has graduated from a post-secondary program. Similarly, children of PMKs with only a high school diploma fare about one point worse on the participation index than children of PMKs with post-secondary

completion. This is in opposition to the finding of Johnson et al. (2001) who found that parental education was not a significant predictor of engagement. PMKs with higher levels of education probably place a higher value on their child's education and devote more resources to encouraging their child's academic pursuits. There is also a measureable effect of income on school engagement. When compared to youth whose family incomes rank in the bottom quartile of the income distribution, students living in households with high, mid-high, and mid-low income levels each rank around one point higher on the participation index. While it seems odd that differences in school engagement are small between the income quartiles, perhaps parents with higher income spend the extra funds on items that do not further academic skills or that distract young adolescents from educational pursuits, such as video games or sports.

4.3 Step-Wise Regression Results: Participation and Economic and Cultural Capital

This section presents findings related to participation engagement and measures of the capital available to the youth. Included here are two measures of capital: economic and cultural, as well as a measure of value placed on academic achievement by the PMK. Again, stepwise regression was used to build on the results generated by examining the effect of youth, family, geographic, and economic indicators on the youth's participation engagement score.

Table 7: Regression Models of School Engagement and Economic and Social Capital and Parental Involvement in Education

Variable	Model 4: Economic and reference resources		Model 5: Cultural activities		Model 6: Grades	
	b	S.E.	b	S.E.	b	S.E.
Constant	26.8***	2.3	26.3***	2.4	25.1***	2.6
Youth age	-.08	.1	-.05	.1	-.04	.1
Female	5.3***	.4	5.2***	.4	5.0***	.4
<i>Minority and immigration status</i>						
Aboriginal	-2.7*	1.2	-2.7*	1.2	-3.0*	1.3
Canadian-born visible minority	-1.3	2.2	-1.2	2.2	-1.5	2.2
White immigrant	1.2	.8	1.0	.8	.9	.8
Visible minority immigrant	2.3*	1.1	2.3*	1.1	1.8	1.2
Minority status missing	-2.2 [†]	1.3	-2.1	1.3	-2.8*	1.4
Blended/step family	-3.9***	.6	-3.8***	.6	-3.5***	.7
Single parent family	-4.1***	.6	-4.0***	.6	-3.7***	.6
PMK's age	.09*	.04	.08 [†]	.04	.09 [†]	.04
Urban	-.004	.4	-.1	.4	-.1	.5
Siblings	.4 [†]	.2	.3	.2	.3 [†]	.2
<i>Region of residence</i>						
Atlantic	1.1*	.5	1.3*	.5	1.2*	.5
Quebec	1.7**	.6	1.7**	.6	1.6*	.6
Prairies	.4	.5	.5	.5	.4	.5
British Columbia	.9	.8	.8	.8	1.2	.8
<i>Highest level of schooling completed</i>						
Less than high school	-1.8**	.7	-1.4*	.7	-1.7*	.7
High school graduation	-1.0*	.4	-.9*	.4	-1.0*	.5
<i>Income quartile</i>						
High income	1.2 [†]	.6	1.2 [†]	.7	1.3 [†]	.7
Mid-high income	1.5**	.6	1.5**	.6	1.6**	.6
Mid-low income	1.4**	.6	1.4**	.6	1.6**	.6

Variable	Model 4: Economic and reference resources		Model 5: Cultural activities		Model 6: Grades	
	b	S.E.	b	S.E.	b	S.E.
<i>Youth has a place to study</i>						
Most of the time	1.0	.7	.9	.7	.7	.8
All of the time	2.0***	.6	1.9**	.6	2.0***	1.6
Response to study missing	1.9*	.9	1.8 [†]	.9	1.7 [†]	1.0
<i>Youth has access to a computer at home</i>						
Response to computer missing	-1.8*	.8	-1.8*	.9	-1.5	.9
Reference resources	-.5	.4	-.4	.4	-.5	.4
Cultural activities			-.06	.1	-.07	.1
PMK uses library often			1.4**	.4	1.2**	.4
Grades are important					1.4 [†]	.8
Number of cases	2996		2994		2832	
R ²	0.2119		0.2171		0.2068	

Source: National Longitudinal Survey of Children and Youth, 1998

[†] p < .1   * p < .05   ** p < .01   *** p < .001

Reference categories are male, Canadian-born White, intact family, rural, Ontario, post-secondary completion, low income, not usually having a place to study, no access to a computer, PMK does not use library often, and grades are not very important

4.3.1 Effects of Economic and Reference Resources

The capital portion of the regression begins with the inclusion of indicators measuring economic capital and reference resources available to the youth, such as the provision of a place to study and do homework, access to a computer in the home, and whether reference resources (a dictionary and a set of encyclopedias) are available in the home. The addition of these new variables causes some changes in the regression coefficients of the variables that were included in the previous model. In particular, the

negative effect of being a Canadian-born youth of visible minority compared to being of Canadian-born white status almost doubles from $-.7$ to -1.3 , although this variable remains non-significant. This might be due to the levels of access to a computer in the home reported by this group. On the other hand, the positive effect of being a visible minority immigrant drops by just more than half a point, perhaps because this group has the lowest reported access to reference resources. The differences in participation engagement between white immigrant youth and the reference group of Canadian-born whites are no longer statistically significant, giving even further reason to believe that outside factors, including economic capital, reduce any differentials in school engagement based on ethnicity and immigration status. The region effects climb slightly and differences between the reference group of Ontario and the Atlantic region as well as the province of Quebec remain statistically significant. The negative effects of the PMK having less than post-secondary education decline somewhat but remain statistically significant.

In regards to the measures of economic and reference capital newly added to the regression, youth who have a place to study or do homework, either sometimes or all of the time, score several points higher on school engagement than their peers who do not usually have a place to complete school work in the home, although this effect is significant only for youth who always have a place to study. Surprisingly, the effect of having access to a computer in the home is negative and non-significant. This may be related to the fact that Aboriginal youth reported the highest instance to having a computer in the home of any minority and immigration status group and these young adolescents also experience lower engagement than any other ethnic and immigration

group. Likewise, the effect of having reference resources in the home is negative and not statistically significant, perhaps reflecting the relatively high instance of reference resources among all minority and immigration groups.

4.3.2 Effects of Cultural Activities

Next, indicators of cultural capital were added to the regression. Cultural capital was measured by the frequency of which the PMK reads books, reads the newspaper, and uses the public library. The addition of these new variables does not result in much change in the indicators previously included in the model. The negative effect of having a PMK with less than high school level education lessens slightly, but otherwise the effects remain fairly stable. While cultural activities do not produce a significant effect on school engagement, the PMK using the library often results in a positive, significant impact on the youth's engagement. This seems to fit with the distribution of library usage by immigration and minority status. A parent who makes frequent use of the public library probably values literacy and education in general and tries to instill these values in their child.

4.3.3 Effects of PMK's Value Placed on Grades

The final model of the regression involved adding a variable regarding the importance of the youth's grades to the PMK. There are some minor shifts that occur as the result of adding this indicator to the model, mostly in the area of the youth's ethnic and immigration background. The negative result of being of Aboriginal ancestry

compared to being of Canadian-born white background on school engagement increases slightly after declining steadily as family characteristics, economic well-being, and capital were added to the model. Similarly, the up and down pattern of effect for youth of Canadian-born visible minority status ends on a downward swing, at -1.5 from -.7 at the third stage of the regression. However, this effect is still non-significant. The positive effect for visible minority immigrant youth lessens by about half a point and no longer accounts for a significant difference. The negative effect for youth for whom minority and immigration status is unknown increases by just over half a point. While it is difficult to compare my findings, based upon immigration and minority status groups, with those of other researchers who studied specific ethnic groups (Finn, 1993; Johnson et al., 2001; Woolley & Bowen, 2007), there exists only insignificant differences between the school engagement of Canadian-born white youth and their peers belonging to different immigrant and minority statuses. The end result is similar to that achieved by Woolley and Bowen (2007): after controlling for measures of economic and cultural capital, as well as the emphasis placed on the youth's grades, the differences between ethnic groups are no longer statistically significant. The one exception to this is the Aboriginal group, who remain at a significant disadvantage even after controlling for family and economic characteristics and indicators of economic and cultural capital. Perhaps differentials among Aboriginal youth are better explained by historical factors or the classroom environment. Consequently, differences in participation engagement do not seem to be inherent to a particular ethnic group, but rather are determined by a multitude of factors. The effect of other variables remains much the same. A young adolescent with a PMK who considers grades to be important results in an increase of almost one and a half

points on the school engagement scale compared to youth with a PMK who does not deem grades to be of much importance. PMKs who place such a high value on academic achievement probably encourage their children to adopt the same attitude towards scholastic endeavors.

4.4 Summary

In the end, there were a number of indicators with statistically significant effects on youth's school engagement, including gender, being of Aboriginal ethnicity, family structure, PMK's age, number of siblings living in the same household, living in Atlantic Canada or Quebec, PMK's level of schooling, income, having a place to study, PMK's frequency of using the library, and the value the PMK places on the youth's grades.

While there was evidence for differing levels of school engagement depending upon a youth's immigration and minority status, the impact did not continue after controlling for measures of capital, with the exception of Aboriginal youth. It seems that resources provided to the youth and cultural activities of the parent help in explaining some of the inequalities in levels of engagement, including inequalities that were seen by immigration and minority status.

Chapter 5: Discussion

This research project investigated participation engagement among Canadian youth aged 10 to 15 and examined the relationship between school engagement, immigration and minority status and various demographic, socio-economic, and economic and cultural capital indicators. The analysis was separated into blocks, with additional indicators being added to the model in each block. This approach allows us to see how the addition of various types of indicators affects the relationship between school engagement and immigration and minority status. The major findings and implications are discussed below.

5.1.1 Gender

Throughout the analysis, the youth's gender holds a significant effect on school engagement, with girls being more engaged than boys. This finding is consistent with previous research on school engagement that found female students to have higher levels of engagement than male students (Berends, 1995; Finn, 1993; Johnson et al., 2001; Voelkl, 1997; Willms, 2003; Woolley & Bowen, 2007). Further, the higher levels of school engagement among female students seem to be present at different levels of schooling, including elementary school (Voelkl, 1997), middle school (Finn, 1993; Johnson et al., 2001; Woolley & Bowen, 2007) and high school (Berends, 1995; Willms, 2003).

To garner an explanation for the differing levels of school engagement by gender in my research project I believe it is necessary to look towards the specific items that measure engagement. The questions asked of the youth's teacher include such things as

“How often does the student work cooperatively with other students?”, “How often does the student listen attentively?”, and “How often does the student work neatly and carefully?” (For a full list of the items forming the participation engagement scale, see Appendix A). Arguably, these are characteristics more likely to be displayed by females than males, due to gender socialization. Behaviours and expressions of emotion deemed appropriate for each gender are reinforced through “agents of socialization” such as parents, teachers, and peers who respond more favourably to different types of behaviours and emotions from male and female children, which in turn reinforces these actions. The reinforcement results in many girls displaying “submissive” types of emotions such as sadness and empathy, which are emotions directed towards caring and unselfishness. Parents of boys, on the other hand, respond more readily to “disharmonious” emotions such as anger and frustration (Chaplin et al., 2005). Likewise, young children are often given toys by their parents that emphasize gender roles before the children are old enough to express their preference for certain types of toys. Girls are more likely to have dolls, fictional characters, and furniture while boys possess more sports equipment, tools, and vehicles (Pomerleau et al., 1990). The toys given to girls seem to promote caring, and perhaps use of language if the fictional characters come from books. Conversely, the toys received by boys seem to stress physical activity and being able to fix things.

The socialization received by boys and girls through response to emotions and behaviours as well as the toys they are given may result in girls being more attuned to being attentive to others, cooperative, and tidy, all of which are attributes taken into consideration in the questions used to build the engagement scale. Boys, on the other

hand, seem to be socialized to act more rough and independent, perhaps leading teachers to rate boys as less likely to follow rules and directions and to demonstrate concentration and attention in the scale used to measure participation engagement in this research project.

5.1.2 Immigration and Minority Status

The relationship between immigration and minority status and school engagement evolves as controls for socio-economic and capital indicators are added to the regression models. While Aboriginal, white immigrant, and visible minority immigrant youth were all initially found to have significantly different levels of school engagement than Canadian-born white youth (the reference group), these differences diminished as control variables were added to the regression models until only Aboriginal youth's school engagement was below the reference group. The disparities between the immigration and ethnic groups can probably be explained by historical patterns of immigration and treatment of First Nations people.

Historic patterns of immigration seem to come into play in the results. Canadian born visible minority is the smallest population group under study here, reflecting the racialized nature of Canada's immigration policy in the years prior to 1962. From the beginning of Canada's settlement until the introduction of the points system in 1962, immigration of visible minorities was severely limited through head taxes, the continuous voyage policy, caps on immigration, and refusal to accept immigrants deemed "unsuited" to Canada's climate (Knowles, 2007). American draft dodgers during the 1970s led to an

influx of well-educated, middle-class immigrants (Knowles, 2007) whose characteristics could be echoed within the white immigrant category used in this analysis.

More recent patterns in immigration probably explain some of the relationships that can be seen in the results of this research project. The results indicate that both white and visible minority immigrants surpass Canadian-born white youth in participation engagement. The first possible explanation for this variation in school engagement lies in the selectivity of Canada's immigration system. The process of selection for immigration to Canada in the skilled worker category (the largest category of arrivals to Canada) is based on a points system. Out of 100 possible points, an applicant must earn 67 in recent years, or 75 in past years, to be approved for immigration. The selection factors include education, ability to speak one of Canada's official languages, work experience, age, pre-arranged employment, and adaptability (Satzewich & Liodakis, 2006). Arguably, most of these skills would be useful in providing support to a child's learning outcomes. Selection for immigration is further refined by the placement of Canadian immigration offices around the world. Immigration is controlled by Canadian officials who decide where to place these offices and the number of staff allocated to each office to process applications (Satzewich & Liodakis, 2006). Many children of parents who have immigrated to Canada have thus undergone a rigorous selection process and may have parents with greater resources to support and promote learning.

The second factor that may come into play between immigration status and participation engagement is family structure. White immigrant youth and visible minority immigrant students both had high rates of living in intact families. These rates were especially high when compared to Canadian born visible minorities and Aboriginal young

adolescents. Intact families have two adults in the household who could viably contribute resources and pass on knowledge to improve a youth's learning outcomes. Youth living in lone parent families with higher income actually have more difficulties in their school performance, probably due to less support and availability of the parent figure (Adams & Ryan, 2000). Likewise, changes in family structure, either through the loss of a parent due to marital dissolution or the addition of a parent through marriage or remarriage can have negative implications on a youth academically, possibly including school engagement (Cavanagh et al., 2006).

No previous research on school engagement has taken parental immigration status into consideration. However, similarities can be found with Canadian research on the topic of parental immigration, and child school achievement reveals that children of immigrant parents who speak English or French perform at least as well as children of Canadian-born parents during the elementary years (Worswick, 2001). The pattern continues at the post-secondary level, with youth of immigrant and Canadian born parents having similar levels of attendance, although attendance rates for Aboriginal youth fall below those of their peers (Thiessen, 2007).

Although some disparities between immigration and minority groups are revealed in the findings of this research project, the use of minority status groups can be problematic. Each group contains individual youth from a wide variety of ethnic backgrounds and nationalities. Combining youth from these various ethnicities and nationalities can hide differences that might be present between specific ethnic groups. For example, research on school engagement in the United States reveals that Hispanic and Black students have lower levels of engagement than white students (Woolley &

Bowen, 2007) and that Asian-American students have the highest levels of participation engagement (Finn, 1993). In this research project, Latin American, Black, and Asian (Chinese, Korean, Japanese) students are combined into visible minority categories, depending on their PMK's immigration status and it is not possible to highlight the differences or similarities in school engagement between these ethnic groups. While it would be interesting to know the patterns of participation engagement that exist by ethnicity, the small sample sizes of the ethnic groups did not permit this type of analysis.

First Nations youth have significantly lower participation engagement than Canadian-born white youth throughout the steps of the data analysis. There are a number of plausible reasons for this discrepancy. The explanation for lower engagement among Aboriginal youth could lie in the climate in the classroom. Many teachers are not fully aware and appreciative of First Nations culture and traditions. For example, spirituality is an integral part of traditional Aboriginal learning and life in general. In most publicly funded schools, however, spirituality is not part of the learning process. The transition from the emphasis on spiritual learning at home to secular learning at school can be confusing and off-putting (Friesen & Lyons, 2002). This may result in Aboriginal students giving less effort or being less involved in their school work because they do not feel a connection between what and how they are learning at school and their life at home. Likewise, there can be barriers in communication between teachers of Canadian-European background who use a highly verbal and explicit style of sharing information and First Nations students who use situational cues and less verbal forms of communication (Taylor, 1995). The different style of communication could leave teachers believing that their Aboriginal students are less attentive and engaged than other

students. In this research project, each youth's participation engagement score is fully determined by the youth's teacher. Therefore, it seems reasonable that teachers with a poor understanding of First Nations culture and problematic communication with their Aboriginal students could have rated these students lower in the various aspects of participation engagement than their peers.

Further, there is a regrettable history of mistreatment of Aboriginal peoples by the Canadian government. This misconduct includes, but is not limited to, the residential school system. At the peak of the residential school era more than 105,000 First Nations children were attending these institutions (The First Nations Leadership Council, 2008). The ill effects of the residential school system are long-lasting and the indirect effects continue for Aboriginal youth today. Many of today's Aboriginal youth have relatives who suffered the abuses and lack of proper educational training of residential schools. These experiences have left some First Nations parents unwilling or unable to become involved in promoting their children's education. Research has demonstrated that parental support for education and parental expectations for education are critical factors in students' school engagement (Garcia-Reid et al., 2005; Johnson et al., 2001; Woolley & Bowen, 2007).

In addition, the family situation of the Aboriginal youth in the sample for this research project is quite different than that of any other immigration and minority status group. Aboriginal youth have the highest instance of living in lone parent families. While disparities were noted between intact and blended or step-families, both of these family structures involve two parent figures. Single parents often have fewer resources, time, and energy to devote to promoting an appetite for learning in their children. Lone parents

who strive to build economic resources for their family may spread their time and personal resources too thin, resulting in negative emotional and academic consequences for their children (Adams & Ryan, 2000).

No previous researcher has specifically examined the participation engagement of Aboriginal children or youth, thus there is no body of research with which to compare the findings of this project. Woolley and Bowen (2007) had initially intended to examine differences in school engagement by ethnicity; however, a number of ethnic groups, including American Indian/Alaska Native, had to be eliminated due to small sample sizes. Still, a body of research does exist on the academic achievement and level of schooling of Aboriginal youth with which to make comparisons. Since academic achievement or school dropout and school engagement have been shown to be related (Finn, 1993; Janosz et al., 2008, Voelkl, 1997) it seems reasonable to make comparisons between these two outcomes. The results of my data analysis indicate that Aboriginal youth, on average, have lower levels of student engagement than any other immigration and minority status group. In a similar vein, research using Statistics Canada's Youth in Transition Survey (YITS) shows that First Nations youth have somewhat lower marks in school than other immigration and minority status groups. First Nations youth are also the most likely to drop out of school and least likely to have enrolled in a university program by age 20-22 of any population group (Thiessen, 2007). Therefore, my findings seem to be consistent with the overall academic performance of Aboriginal youth.

5.1.3 Cultural Capital

The results of this research project lend some credence to the cultural capital theory. After the introduction of measures of capital, the effects of some other variables (most notably, immigration and minority status) were reduced to the point of no longer being statistically significant. The exception to this is youth identified as being of Aboriginal ancestry who maintain a statistically significant decline in school engagement compared to Canadian-born white youth throughout each step of the analysis. Other researchers have found a similar pattern, concluding that cultural capital provides a relative but not exhaustive explanation for differences in learning outcomes. Measures of socio-economic status or social class are statistically significant before and after the addition of indicators of cultural capital to the analysis (Barone, 2006; De Graaf et al., 2000; Sullivan, 2001) while ethnicity is no longer significant after the addition of cultural capital variables (Woolley & Bowen, 2007).

Of the variables used in the analysis to measure cultural capital, the PMK's frequency of using the public library stands out as having a moderate and statistically significant effect on a youth's participation engagement. Usage of the public library is certainly indicative of some variables already controlled in the analysis, such as community size, for example. Adults living in urban communities probably have easier access to libraries with a greater variety of resources. Beyond the variables under study here, there is likely some other factors that explain the relationship between greater PMK library usage and higher levels of student engagement. Perhaps PMKs who visit the library often take their children with them, passing on an appreciation for higher learning.

It is also conceivable that PMKs who frequently use the public library value reading and education in general and strive to instill and support these values in their children.

Moreover, an analysis of PISA data reveals that indicators of cultural capital seem to have a lesser relationship with schooling outcomes to youth living in countries where “cultural codes” are not deemed as important. For example, the outcomes of youth living in France are much more heavily influenced by cultural capital than those of young adolescents living in Canada (Barone, 2006). This seems logical as the patterns of immigration and the acceptance of various cultural practices are very different between countries such as Canada and France. In Canada, net international migration accounted for about two-thirds of the annual population growth between 2005 and 2006 (Statistics Canada, 2006), compared to migratory movements in France which accounted for just one fourth of the population growth in 2006 (INSEE, 2007). Bourdieu and Passeron explain that the French school system has a “very special capacity to decree and impose hierarchies” and state that universities in other countries have more successfully moved away from “the medieval tradition” than has the French education system (1990; 149).

Further, it seems as though the characteristics likely to be possessed by almost all families are less important indicators of capital, and in turn, school engagement, than those that are held by only a select group. For example, having access to reference resources (a dictionary and a set of encyclopedias) was quite common and was non-significant, while having a place to study all of the time was more unusual and was a highly significant indicator of school engagement. It may be that maintaining an appropriate study space all of the time represents a larger investment in a youth and the youth’s education than does purchasing a dictionary. Perhaps larger investments in

capital result in larger returns in school engagement. If expectations for school performance are made clear and resources that go beyond the basic necessities are provided, perhaps youth have more support for their educational pursuits or more stringent expectations set upon them for performance which results in greater school engagement.

5.2 Limitations of the Theoretical Approach

While Bourdieu's theories on capital are the theoretical approach best suited to this research project, they do not pass without criticism and controversy. Bourdieu is often critiqued for not being specific enough about what elements and resources can be considered cultural capital (Sullivan, 2001). Some theorists identify cultural capital as prestigious cultural practices. For example, DiMaggio (1982) defines cultural capital according to Weber's notion of elite status groups as "specific distinctive cultural traits, tastes, and styles" shared by "collectivities bound together by personal ties and a common sense of honor based upon and reinforced by shared conventions" (189). Other theorists suggest that Bourdieu was not referring to "highbrow" cultural practices such as the appreciation of fine art and classical music and they include instead reading, television viewing, training in interactions with institutions, and parental intervention in education among measures of cultural capital (De Graaf et al., 2000; Lareau & Weininger, 2003). Here, I have made use of measures of economic and cultural capital that are less "highbrow" including possession of educational resources, literacy activities of the PMK, and value placed on the youth achieving high grades.

As well, the methods Bourdieu used to prove his theories of capital have been deemed insufficient. While Bourdieu demonstrates a correlation between high parental education and high levels of parental cultural capital, he does not demonstrate how cultural capital is passed on to youths in these advantaged families (Sullivan, 2001). Further, some researchers argue that social classes may not display strong cultural identities, and boundaries between status groups are sometimes weak, changing, and difficult to identify (Barone, 2006). Bourdieu's theory of social and cultural reproduction is based on the more stringently and historically defined cultural boundaries in France, which may not be as present in North American society. Despite these shortcomings and debates, economic and cultural capital seems to explain at least some of the variations in levels of school engagement among Canadian youth.

5.3 New Evidence for School Engagement

One of the most important aspects of any research project is the contribution it makes to the body of knowledge on a specific topic. Several contributions can be made to the understanding of school engagement as a result of this project, especially in the respect to the link to Canadian youth.

Previously, the impact of the student's family structure on school engagement has not been fully explored. Most studies (Berends, 1995; Finn, 1993; Voelkl, 1997; Woolley & Bowen, 2007) neglected this critical indicator of family life and those who did investigate this avenue either did not differentiate between types of non-intact families (Johnson et al., 2001) or types of two-parent families (Willms, 2003). My research included family structure and found evidence to support differing levels of engagement

among youth from intact, blended and step-, and single parent families. Young adolescents from blended and step-families, as well as youth from lone parent homes, fared significantly worse in school engagement than youth from intact families. This finding is consistent with that of Johnson and her colleagues (2001) as well as previous research linking family structure and child academic and emotional well-being (Cavanagh et al., 2006; Adams & Ryan, 2000). Conversely, Willms (2003) found that youth from lone parent families had greater odds of having low participation than students from two-parent families. This seems to contradict my finding that youth from blended or step families have lower engagement than youth from intact families, even though both structures have two parents. Canada's divorce rate in 2002 was 37.6% (Statistics Canada, 2004); therefore, it is likely that many young people will find themselves living in a single parent, blended, or step-family at some point in their lives. For this reason, it is important to understand the impact of belonging to a non-intact family on youth outcomes, including school engagement.

The theoretical contribution of this project comes from the application of Bourdieu's theories on capital. Here, three types of capital (economic capital, cultural capital, and value placed on academic achievement) were added to the regression models to assess the impact of capital on school engagement. Since the application of theory to the study of school engagement has largely been neglected, little previous research, with the exception of Woolley and Bowen (2007) has examined school engagement in light of capital contributed by parents or possessed by youth. It was found that there is a relationship between capital and school engagement, but that capital does not provide a complete explanation of the variations in a youth's participation engagement. The

influences of being female, being of Aboriginal ancestry, living in a non-intact family, having a PMK without a post-secondary degree, and living in lower income persist even after considering the capital provided by the family. While some types of capital were important predictors of participation engagement, others were not. Reference resources, with the exception of having a place to study, were not significant determinants of engagement, nor was participation in everyday cultural activities by the PMK. Conversely, PMK's library use and value placed on the youth's grades were key indicators for a relationship between capital and participation engagement. This information is valuable and can give theoretical direction to future research projects on school engagement.

This research project also makes contributions of the study of the school engagement of immigrant versus native-born youth. Earlier research on the topic of school engagement has never classified students according to their parental immigration status. The results acquired here indicate almost all immigration and minority groups are quite similar in their school engagement once family, economic, and capital characteristics have been taken into consideration. Children of immigrants, whether visible minorities or of European ancestry, slightly outscore Canadian-born white youth in school engagement, while Canadian-born visible minorities and First Nations youth are rated somewhat worse (with the difference between Canadian-born Europeans and Aboriginal youth being statistically significant). These findings add to what is already known about ethnic differences in school engagement. With immigration to Canada remaining high and the established link between school engagement and higher

education, it is imperative to know how children of immigrants are faring in various outcomes, including school engagement, compared to their Canadian-born peers.

Prior research on the school engagement of Canadian youth is quite limited. It includes comparisons among OECD nations, including Canada, with a limited measure of participation engagement (Willms, 2003) and a longitudinal study of students from low socioeconomic middle and high schools in the province of Quebec (Janosz, 2008). Research involving a more extensive set of demographic and family indicators, a more complete measure of participation engagement, students from a range of SES backgrounds, and a national sample was thus needed. Although the results of my research project display many similarities with studies from the United States, these consistencies have now been confirmed. Further, there is some evidence for regional differences in school engagement, as students in the Atlantic provinces and Quebec had slightly higher, statistically significant scores on participation engagement than students living in Ontario. While this could be due to an unequal distribution of educational resources, it is not possible to know the reason for regional differences and this could provide a direction for future Canadian research on school engagement. Similarly, the finding of lower participation engagement amongst First Nations youth provides a uniquely Canadian perspective to this topic.

5.4 Implications

The results of this study hold serious implications for parents, educators, and policy makers. The positive influence of parental cultural activities and support for education are affirmed in this research project. Parents who hold high expectations for

their child's academic achievement and who provide resources to help their children scholastically foster engagement in learning for their children. Educators need to be aware of groups of students who are at risk for low levels of engagement in school. Care needs to be taken to reach out to students undergoing changes in their family structure. As well, teachers need to remain conscious of a gender bias in their instruction and evaluation styles that exclude male students from positive involvement in the classroom. The needs of First Nations students also need to be addressed as educators may continue to fall short in this area. The involvement of parents and community leaders is required to engage Aboriginal students and develop learning that is relatable to everyday life. Finally, policy makers need to be attentive to findings on school engagement as they modify and develop curriculum content to create programming that is culturally and socially relevant to students from a variety of backgrounds.

Chapter 6: Conclusions

The focus of this research has been to explore school engagement through the lens of social and cultural reproduction theory. The analysis was divided into six models to show how the effect of demographic characteristics such as gender and immigration and minority status on participation engagement changed with the addition of indicators measuring family, economic, and capital characteristics. This approach addressed the lack of application of theoretical frameworks in previous school engagement research. In addition, indicators that had been neglected in previous research, namely family structure and immigration status, were incorporated into this thesis to provide a more complete portrait of factors that influence participation engagement.

As expected, based on previous research, there were differences in participation engagement by gender, with girls, on average, being rated higher by their teachers than boys. Likewise, there were initial differences in participation engagement by immigration and minority status, with Aboriginal and Canadian-born visible minority students faring worse than their Canadian-born white peers and both immigrant groups surpassing the reference group. This finding is particularly interesting, as immigrant youth are outperforming native-born Canadians in school engagement. These differences seem to be partially explained by income and parental education differentials as PMKs who were visible minority immigrants had higher levels of post-secondary education, yet also lived in lower income. Further research is required to assess whether the influence of high school engagement persists into the post-secondary years and whether engagement can counter effect the economic barriers to higher education faced by immigrant families. There was also some evidence to support cultural and economic capital as an explanation

for variation in participation engagement. Young adolescents who always had a place to study and complete their homework, as well as youth with PMKs who used the library often and who valued high grades outperformed their peers on the participation engagement scale. Furthermore, youth from blended and step-families, as well as those from lone parent households have lower participation engagement.

6.1 Limitations

There are some limitations in this research project that need to be considered. The first limitation is the theoretical framework. As previously discussed, there is some controversy about what kinds of activities can be considered cultural capital. I believe that Bourdieu's theory is open to the inclusion of indicators of "everyday" cultural capital". Further, this thesis includes limited measures of cultural capital since indicators of economic capital, such as a place to study, academic resources, and a computer in the home, were more readily available in the NLSCY. Given the opportunity to include a more detailed profile of the PMK and youth's cultural activities, I would have taken further indicators of cultural capital into consideration.

The response rate to the teacher's questionnaire, from which the participation engagement scale was developed, was problematic. Only about 44% of teachers provided information about their students' engagement, possibly due to multiple layers of permission that had to be sought in order for the questionnaire to be completed. However, this response rate was consistent with that of other surveys of professionals. In addition, youth in this dataset whose teachers responded to the questionnaire had similar characteristics to those whose teachers did not provide a response. The NLSCY is the

only national survey to provide information about school engagement in the young adolescent population, and the survey was mined for all the information it could provide in this analysis.

There were also several other limitations to the data, the first of which is the small sample size of various ethnic groups. Since the NLSCY does not specifically target ethnic groups, youth of diverse ethnic backgrounds were combined in the analysis to create minority status groups. The immigration and minority groups had acceptable sample sizes on which to base the multiple regression analysis. However, it would have been more useful to include separate categories for each of the main ethnic groups in Canada as it is likely that school engagement differs among visible minority students of different ethnicities. As well, the NLSCY does not sample from Canada's territories, so the school engagement of students in these areas is not documented in this research project. In the future, it would be worthwhile to examine the differentials in participation engagement in the territories. Finally, there is no coverage of immigrants who arrived to Canada after 1994. The sample under study here was selected in 1994 and was never topped up for immigrants arriving between 1995 and 1998. Therefore, while the sample does provide information about children of immigrants who arrived in 1994 or prior, it does not include data on Canada's most recently arrived immigrants and the immigrant population under study here is smaller than Canada's current immigrant population.

6.2 Recommendations

The results of my data analysis and the process of undertaking this research project leave me with several recommendations for future survey design and research

direction. First of all, I would like to address the high non-response to the teacher's questionnaire associated with the NLSCY. This portion of the survey has since been dropped and there exists no national data gathered from elementary to high school teachers. It is unlikely that any federally sponsored survey will address issues of schooling outcomes from a teacher's perspective since education at this level is a provincial jurisdiction. I think the best option for gaining high quality data with high response rates would be to reach teachers through their governing bodies at a provincial level. For example, teachers in Ontario are licensed through the Ontario College of Teachers. A request for information from a governing body might be met with more respect and attention than a request that is passed from parent to school board to teacher. Further to the need for data with higher response rates and larger sample sizes is the need for better measures of capital. As the unit of analysis in the NLSCY is the youth, indicators related to the cultural activities of the parents are somewhat lacking. Information on cultural activities attended by the parents such as plays and visits to art galleries could provide greater evidence for or against a relationship between capital and school engagement. Likewise, information on cultural activities of the youth, including participation in art, music, or drama lessons could provide greater knowledge of the relationship between youth cultural capital and school engagement.

Many researchers, including myself, have examined participation engagement. Likewise, belonging engagement has been widely studied in the United States (Finn, 1993; Johnson et al., 2001; Voelkl, 1997) but research in this domain of school engagement is lacking in Canada. Given the unique immigration and minority status findings of my own research, I suggest that examining differentials in school belonging is

an excellent avenue for furthering the research of school engagement in Canada.

Moreover, the third type of engagement, cognitive engagement, described by Fredricks et al. (2004) requires study. This type of engagement focuses more on the student and the investment the individual is willing to make to master more difficult skills. The study of cognitive engagement could complement the study of participation engagement, since cognitive engagement seems to be a quality that could be measured as participants get older – perhaps in the late high school or post-secondary years.

This thesis provides only a snapshot of participation engagement in a group of students at one point in time. To gain more detailed information about how school engagement evolves throughout a student's school years longitudinal research is needed. Although some research on school engagement has had a longitudinal focus, this area requires further study. Prior research has followed students from elementary school to middle school (Voelkl, 1997). As previously mentioned, cognitive engagement remains unexplored. A study that follows students from elementary school through post-secondary education (if the student achieves this level of education) could provide important information about all three types of engagement and when each type is most influential on the student's schooling outcomes.

The disparities in school engagement shown in this thesis between First Nations youth and Canadian-born youth of European background provide direction for future study. Here, these two ethnic groups have been compared but future research could examine patterns of school engagement exclusively in Aboriginal youth since comparison is sometimes problematic due to differences in culture and communication. Furthermore, this research project examines only First Nations youth living off reserve. An estimated

58% of Canadian Status Indians live on reserve, leaving a large portion of Aboriginal youth unstudied (Friesen & Lyons, 2002). The study of school engagement among First Nations youth living on reserve requires a different approach than the large scale surveys that have been used to gather data on this topic in the general population. An approach that incorporates the Aboriginal community, including parents, students, and community leaders, such as participatory action research is probably more suitable.

Finally, this research project creates questions that could be answered with further research to allow comparisons between Canada and other nations. Future research could track the link between history and culture of a nation and school engagement. For example, capital was found to account for some, but not all, differences in school engagement. The research of Barone (2006) seems to suggest that capital may play a more prominent role in determining school outcomes in countries where social standing holds greater weight. Likewise, the history of immigration and of the treatment of First Nations people appears to have determined patterns of school engagement in Canadian youth. Future research could determine whether historical patterns have the same effect in other nations.

6.3 Conclusion

Overall, the results of this thesis provide nationally relevant information on the school engagement of Canadian youth. In general, youth aged 10-15 years are quite engaged with their schooling, with youth of immigrant parents faring the best, followed by Canadian-born white youth, Canadian-born visible minorities, and Aboriginal youth. Youth gender, family socio-economic characteristics, and economic and cultural capital

all play a role in determining levels of school engagement in this sample of youth.

Building upon the groundwork laid in this thesis, future research could examine the continuing patterns of school engagement as young people finish high school and enter their post-secondary years and assess the relationship between immigration and minority status and belonging engagement in the Canadian population.

References

- Adams, G. & Ryan, B. (2000). A longitudinal analysis of family relationships and children's school achievement in one- and two-parent families. (Catalogue No. W-01-1-8E). Hull: Human Resources Development Canada – Applied Research Branch.
- Avery, D. (1995). Reluctant host: Canada's response to immigrant workers, 1896-1994. Toronto: McClelland and Stewart.
- Barone, C. (2006). Cultural capital, ambition, and the explanation of inequalities in learning outcomes: a comparative analysis. Sociology, 40(6) 1039-1058.
- Berends, M. (1995). Educational stratification and students' bonding to school. British Journal of Sociology of Education, 16(3) 327-351.
- Bourdieu, P. (1986). The forms of capital. In Richardson, J. (Ed.), Handbook of theory and research for the sociology of education (pp. 241-258). New York: Greenwood.
- Bourdieu, P. & Passeron, J-C. ([1970] 1990). Reproduction in education, society, and culture (2nd ed.) London: Sage.
- Bowlby, G. (2005). Provincial dropout rates – trends and consequences. Education Matters: insights on education, learning and training in Canada. Statistics Canada (Catalogue No. 81-004-XIE).
- Canada. (1909-1910). Statutes of Canada, vol. 1.
- Canadian Council on Social Development. (1997). Does family income affect the healthy development of children? Retrieved August 9, 2008 from <http://www.ccsd.ca/perception/211/p211fi.htm>
- Canadian Institute for Health Information. (2005). 2004 National Physician Survey response rates and comparability of physician demographic distributions with those of the physician population. Retrieved July 8, 2008 from http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=bl_npsmay2005_e
- Carter, P. (2003). "Black" cultural capital, status positioning, and schooling conflicts for low-income African-American youth. Social Problems, 50(1) 136-155.
- Cavanagh, S., Schiller, K. & Riegle-Crumb, C. (2006). Marital transitions, parenting, and schooling: Exploring the link between family-structure history and adolescents' academic status. Sociology of Education, 79(4) 329-354.
- Chaplin, T., Cole, P. & Zahn-Wexler, C. (2005). Parental socialization of emotion expression: Gender differences and relations to child adjustment. Emotion, 5(1) 80-88.

- Charles, C., Roscigno, V. & Torres, K. (2007). Racial inequality and college attendance: the mediating role of parental investments. Social Science Research, 36 329-352.
- Chawla, R. (2008). Provincial labour force difference by level of education. Perspectives on Labour and Income, 9(5) 24-35.
- Citizenship and Immigration Canada. (2008a). Reducing Canada's immigration backlog. Retrieved June 18, 2008 from <http://www.cic.gc.ca/english/departement/laws-policy/irpa.asp>
- Citizenship and Immigration Canada. (2008b). Immigrating to Canada. Retrieved June 18, 2008 from <http://www.cic.gc.ca/english/immigrate/index.asp>
- Citizenship and Immigration Canada. (2005). Facts and figures 2005: immigration overview. Retrieved June 18, 2008 from <http://cic.gc.ca/english/pub/facts2005/overview/1.html>
- Curtis, B. (1988). Building the educational state: Canada West, 1836-1871. London: The Althouse Press.
- De Graaf, N., De Graaf, P. & Kraaykamp, G. (2000). Parental cultural capital and educational attainment in the Netherlands: a refinement of the cultural capital perspective. Sociology of Education, 73(2) 92-111.
- Department of Justice. (2004). When parents separate: Further findings from the National Longitudinal Survey of Children and Youth. Retrieved August 9, 2008 from http://www.justice.gc.ca/eng/pi/pad-rpad/rep-rap/2004_6/p2.html#f2_2a
- DiMaggio, P. (1982). Cultural capital and school success: the impact of status culture participation on the grades of U.S. high school students. American Sociological Review, 47(2) 189-201.
- Downey, D. (1995). When bigger is not better: Family size, parental resources, and children's educational performance. American Sociological Review, 60(5) 746-761.
- Durkheim, E. (1951). Suicide: a study in sociology. New York: The Free Press.
- Finn, J. (1993). School engagement and students at risk. Washington: National Center for Education Statistics Research and Development Reports.
- Fredricks, J., Blumenfeld, P. & Paris, A. (2004). School engagement: Potential of the concept, state of the evidence. Review of Educational Research, 74(1) 59-109.
- Freeman, C. (2004). Trends in educational equity of girls and women: 2004. Washington: National Center for Education Statistics.
- Friesen, J. & V. (2002). Aboriginal education in Canada: a plea for integration. Calgary: Detselig Enterprises.

- Garcia-Reid, P., Reid, R. & Peterson, N. (2005). School engagement among Latino youth in an urban middle school context. Education and Urban Society, 37(3) 257-275.
- Gereluk, W. (1974). Alienation in education: a Marxian re-definition. McGill Journal of Education, 9(1) 34-50.
- Hango, D. (2007). Parental investment in childhood and educational qualifications: Can greater parental involvement mediate the effects of socioeconomic disadvantage? Social Science Research, 36, 1371-1390.
- Hirschi, T. (1969). Causes of delinquency. Berkley: University of California Press.
- Indian and Northern Affairs Canada. (2004). Fall 2002 survey of First Nations people living on-reserve survey response rate. Retrieved July 8, 2008 from http://www.ainc-inac.gc.ca/pr/pub/srv/srv-apdxB_e.html
- INSEE. (2007). Demographic balance sheet 2006: a record natural increase. Retrieved July 21, 2008 from http://www.insee.fr/en/themes/document.asp?reg_id=0&ref_id=ip1118#inter7
- Johnson, M., Crosnoe, R. & Elder, G. Jr. (2001). Students' attachment and academic engagement: the role of race and ethnicity. Sociology of Education, 74(4) 318-340.
- King, J. (2000). Gender equity in higher education: Are male students at a disadvantage? Washington: American Council on Education.
- Klem, A. & Connell, J. (2004). Relationships matter: Linking teacher support to student engagement and achievement. Journal of School Health, 74(7) 262-273.
- Knowles, V. (2007). Strangers at our gates: Canadian immigration and immigration policy, 1540-2006 (revised ed.) Toronto: Dundurn Press.
- Lambert, M., Zeman, K., Allen, M. & Bussière, P. (2004). Who pursues postsecondary education, who leaves and why: Results from the Youth in Transition Survey. Ottawa: Statistics Canada.
- Lareau, A. & Weininger, E. (2003). Cultural capital in educational research: a critical assessment. Theory and Society, 32 567-606.
- Li, P. (1998). The Chinese in Canada. (2nd ed.). Toronto: Oxford University Press.
- Marks, H. (2000). Student engagement in instructional activity: Patterns in the elementary, middle, and high school years. American Educational Research Journal, 37(1) 153-184.
- Miller, J.R. (1996). Shingwauk's vision: a history of Native residential schools. Toronto: University of Toronto Press.

- Milloy, J. (1999). A national crime: the Canadian government and the residential school system, 1879 to 1986. Winnipeg: University of Manitoba Press.
- Morissette, R. & Johnson, A. (2004). Earnings of couples with high and low levels of education, 1980-2000. Ottawa: Statistics Canada.
- Moyer, T. & Motta, R. (1982). Alienation and school adjustment among black and white adolescents. The Journal of Psychology, 112 21-28.
- Norris, C., Pignal, J., & Lipps, G. (2003). Measuring school engagement. Statistics Canada Educational Quarterly Review, 9(2) 25-34.
- Overstreet, S., Devine, J., Bevans, K., & Efreom, Y. (2005). Predicting parental involvement in children's schooling within an economically disadvantaged African American sample. Psychology in the Schools, 42(1) 101-111.
- Pomerleau, A., Bolduc, D., Malcuit, G. & Cossette, L. (1990). Pink or blue: Environmental gender stereotypes in the first two years of life. Sex Roles, 22(5/6) 359-367.
- Satzewich, V. & Liodakis, N. (2006). 'Race' and ethnicity in Canada: a critical introduction. Toronto: Oxford University Press.
- Schissel, B. & Wotherspoon, T. (2003). The legacy of school for Aboriginal people: Education, oppression, and emancipation. Toronto: Oxford University Press.
- Small, R. (2005). Marx and education. Hampshire: Ashgate.
- Statistics Canada. (2004). The Daily: Divorces. Retrieved July 15, 2008 from <http://www.statcan.ca/Daily/English/040504/d040504a.htm>
- Statistics Canada. (2006). The Daily: Canada's population. Retrieved July 21, 2008 from <http://www.statcan.ca/Daily/English/060927/d060927a.htm>
- Sullivan, A. (2001). Cultural capital and educational attainment. Sociology, 35(4) 893-912.
- Taylor, J. (1995). Non-native teachers teaching in native communities. In M. Baltiste & J. Barman (Eds.), First Nations education in Canada: the circle unfolds (pp. 224-242). Vancouver: UBC Press.
- The First Nations Leadership Council. (2008). Backgrounder: History of Canada's Indian residential school system. Retrieved July 16, 2008 from http://www.fns.bc.ca/pdf/Backgrounder_ResidentialSchoolHistory.pdf
- Thiessen, V. (2007). Academic performance, human capital skill formation, and post-secondary education: a comparison of First Nation, immigrant, visible minority, and other native-born Canadian youth (Working paper No. 1). Halifax: Canadian Labour Market and Skills Researcher Network. Retrieved May 27, 2008 from

www.econ.ubc.ca/clsrn/publications/workingpapers/Thiessen_workshop_cover%20page.pdf -

- Thomas, E. (2004). Aggressive behaviour outcomes for young children: Change in parenting environment predicts change in behaviour. (Catalogue No. 89-599-MIE). Ottawa: Statistics Canada.
- Voelkl, K. (1997). Identification with school. American Journal of Education, 105(3) 294-318.
- Willms, D. (2003). Student engagement at school: a sense of belonging and participation. Results from PISA 2000. Paris: Organisation for Economic Co-operation and Development.
- Wilson, P. (1994). The professor/student relationship: Key factors in minority student performance and achievement. Canadian Journal of Native Studies, 14(2) 305-317.
- Woolley, M. & Bowen, G. (2007). In the context of risk: Supportive adults and the school engagement of middle school students. Family Relations, 56(1) 92-104.
- Worswick, C. (2001). School performance of the children of immigrants in Canada, 1994-1998. Ottawa: Statistics Canada.
- Young, J. & Levin, B. (1998). Understanding Canadian schools: an introduction to educational administration. Toronto: Harcourt Brace.
- Zietsma, D. (2007). The Canadian immigrant labour market in 2006: First results from Canada's Labour Force Survey. (Catalogue No. 71-606-XIE). Ottawa: Statistics Canada.

Appendix A: Description of Variables

Dependent Variable

The teacher-reported participation index was constructed by summing the corresponding values for the responses given by each youth's teacher to the following questions:

How often does/is the student...?

1. Work cooperatively with other students
2. Follow rules
3. Follow instructions
4. Listen attentively
5. Follow directions
6. Complete work on time
7. Take care of materials
8. Work neatly and carefully
9. Give up easily
10. Inattentive
11. Fail to complete homework
12. Disobedient at school
13. Not concentrate for long

The possible responses to items 1-8 and 11 were:

01	Never
02	Rarely
03	Sometimes
04	Often
05	Always

The possible responses to items 9-10 and 12-13 were:

01	Never or not true
02	Sometimes or somewhat true
03	Often or very true

Items 9-13 were reverse-coded so that a higher value represented a positive behaviour. In addition, the scores for each item were reduced by one so that the lowest value for each item was zero. This resulted in a participation index with possible values ranging from 0 to 44.

Independent Variables

Age of child (in years)

Gender of child

Child's immigration and minority status: created from two variables

1. How would you best describe [the child's] race or colour and
2. Are you now, or have you ever been a landed immigrant [PMK]

Child's intact family status:

- 01 Child is a member of an intact family (child is the natural and/or adopted child of both adults)
- 02 Child is a member of a couple census family (child is a member of a step or blended family where the child is the natural and or adopted child of only one parent)
- 03 Child is a member of a single parent family
- 04 Child does not live with a parent (lives with foster parents, lives with a non-biological adult, or lives in another circumstance)

Age of PMK (in years)

Size of the area of residence in which the child lives, according to 1996 Census counts:

- 01 Rural area
- 02 Urban, population < 30,000
- 03 Urban, population 30,000 to 99,999
- 04 Urban, population 100,000 to 499,999
- 05 Urban, population 500,000 or over

Total number of siblings (of the child) living in the household

Province of residence

PMK's highest level of schooling obtained

- 01 Less than secondary
- 02 Secondary school graduation
- 03 Beyond high school
- 04 College or university degree

What is your best estimate of your total household income from all sources in the past 12 months, that is the total income from all household members, before taxes and deductions?

I have a place to do homework or study:

- 01 All of the time
- 02 Most of the time
- 03 Some of the time
- 04 Rarely
- 05 Never
- 06 I have no homework

Do you have access to a computer at home?

01 Yes

02 No

Reference resources index, created from:

Which of the following materials do you currently have in your home: a (multi-volume) encyclopedia, a dictionary?

Cultural activities index, created from:

Excluding for work or school, please tell me if you [PMK] do each of them daily, weekly, monthly, several times a year, once or twice a year, or never: read newspapers or magazines, read books

Excluding for work or school, please tell me if you [PMK] do each of them daily, weekly, monthly, several times a year, once or twice a year, or never: use a public library

How important is it to you that the child has good grades in school?

01 Very important

02 Important

03 Somewhat important

04 Not important at all