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Cultural Capital, Habitus and Academic Achievement

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CULTURAL CAPITAL, HABITUS AND ACADEMIC ACHIEVEMENT

by

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B.A. May 2018, Old Dominion University

A Thesis Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF ARTS

APPLIED SOCIOLOGY

OLD DOMINION UNIVERSITY
May 2020

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ABSTRACT

CULTURAL CAPITAL, HABITUS AND ACADEMIC ACHIEVEMENT

Tevin Vaughan
Old Dominion University, 2020
Director: Dr. Roderick Graham

Education in the United States is directly tied to social mobility for students with low socioeconomic status. The fact that these same students are less likely to succeed academically and that the interaction between cultural capital (knowledge, skills, mannerisms, etc.) and habitus (dispositions and attitudes) are understudied has led to the formulation of this study. This study looks to identify a mechanism that can be leveraged by low SES students for educational attainment. This research will follow an exploratory, cross-sectional design, that will use quantitative methods to examine the influence that cultural capital and habitus on low income student academic achievement. There are 3 research questions that guide this study: What is the relationship between participating in cultural activities (cultural capital) and academic achievement? What is the relationship between the parenting activities of the child (habitus) and academic achievement? Do low income students benefit more from cultural capital and habitus than higher income students?

Results show that doing things like attending school events, school meetings, PTA meetings, parent teacher conferences, participating in fundraisers, school committees, and volunteering will have a significant positive effect on the academic achievement of disadvantaged students, and that low income students have more to gain from habitus than their higher income counterparts.

ACKNOWLEDGMENTS

Completion of this thesis could not have been achieved without the unrelenting support, helpful guidance, and positive encouragement of my thesis committee, and my family and friends. This acknowledgement serves as an embodiment of the appreciation and gratitude I hold for these individuals.

Firstly, I wish to thank Dr. Roderick Graham, my thesis chair, who has served a mentor to me throughout the second half of this master's program. He has helped me figure out a lot about myself as a scholar, a writer, and as a person. His willingness to help has shown me that leaders make time for those that they lead, and that is exactly what he is, a leader. He has shown complete belief in my ability as a student, as a writer, and even as a father which has pushed me to do the best I can in each of those aspects. I truly would have not been able to complete this process without him, so I would like to give him much thanks. Dr. Melvina Sumter has also been a mentor to me in this thesis process, providing tremendous amounts of knowledge on the very process itself. The amount of knowledge Dr. Sumter has on the thesis process is admirable, better yet, the amount of knowledge Dr. Sumter has in general is admirable. She is also amazing at helping students make real world connections and providing opportunities. The number of events I was invited to, people I was invited to meet, and opportunities I was given from Dr. Sumter cannot be overstated. I am truly grateful to have been fortunate enough to work with Dr. Sumter. Dr. Jeehye Kang is another person who has been a great help in this thesis process, as she possesses a great deal of knowledge about the research writing process. Without her, I would have not been able to properly formulate and write this thesis manuscript. I have great appreciation for her and would like to give her much thanks.

I would also like to thank the others in the department of Sociology, including the program director Dr. Whitaker, any professors I had the honor of working with, and my peers in the program. Again, this would not have been possible without any of them. Dr. Whitaker's suggestion to apply for the program is a part reason why I began the master's program.

Big thanks to my mother Vernet Vaughan, who has pushed me all my life to want and do better for myself. She is another part of the reason of the reason I entered the master's program, because she believed in my abilities as a student. She has been my biggest supporter outside of classes and campus, and I would not be here without her. I would also like thank the Mother of my child and soon to be wife Josette Thompson, as she gives me a reason to keep going. Her and my child are constant reminders that I need to keep working hard in life, no matter the amount of stress. I would like to also give them thanks.

Lastly, I would like to thank all my friends and family that have been supporting me throughout the program. I would like to thank the faculty and staff at Old Dominion University, as they have provided a welcoming environment, which is one of the most important parts in the wellbeing of students.

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CHAPTER I

INTRODUCTION

Social mobility in the United States is tied to educational attainment. Historically, the sons and daughters of disadvantaged groups have leveraged America's educational system – both secondary and post-secondary – to enter the middle class. For example, in the second half of the 20th century, the boom in America's middle class has been linked to servicemen, many of them from Italian, Irish, and Jewish backgrounds, used the GI Bill to attend college and enter into middle class professions. Similarly, the relative growth of the Black Middle class has been tied to the educational opportunities available through desegregation of universities and Affirmative Action. The link between education and moving out of poverty is clear.

The necessity of formal education has only increased in recent decades. American society has moved from an industrial economy to a knowledge economy. The ticket to the middle class is now given after completion of a two- or four-year degree. Young people in the 21st century are tasked with excelling in primary school in order to position themselves for entry into quality colleges and universities that will grant them the credentials they can leverage on the marketplace.

Cultural Capital

Given the importance of education in breaking a cycle of poverty, parents, educators, and scholars have a stake in identifying factors that can increase the educational success of students from low income and poor households. One possible means through which children from these households can increase their success, particularly in grade school, is through the acquisition of

cultural capital. According to a recent review of cultural capital literature by Davies and Rizk (2018), the concept cultural capital has taken on several forms since it's original formulation by Pierre Bourdieu. However, in "its most generic version, the term 'cultural capital' refers to cultural traits that are rewarded in fields like education." (Davies and Rizk 2018:332). Winkle-Wagner (2010), gives a more expansive definition:

> "Cultural capital can be grasped as those culturally based resources that can act as a form of 'capital.' Culturally based resources can include such things as cultural awareness, knowledge about educational institutions (schools), educational credentials, and aesthetic preferences (such as taste in music, art, or food) ...It also includes skills, abilities, or mannerisms, which are primarily habituated and may not be consciously noticed." (p.5).

This awareness, knowledge, credentials, and mannerisms only become capital when they are used to distinguish between social groups – including those who have and excluding those who do not.   For example, having a degree from a Northeastern Liberal Arts school has cache to many elites in the United States. Someone holding a degree from one of these schools will have more access to elite social networks than someone holding a degree with the same major from a Midwestern public college. Historically, knowledge of the "classics" in literature, music, and architecture have been seen as forms of cultural capital. However, the content of cultural capital changes. As such, Wildhagen (2010), argues that the ability to use technology effectively – digital literacy – may be a form of modern cultural capital.

Since Bourdieu's original formulation, cultural capital has become a commonly used concept used in educational research. According to Davis and Rizk (2018), three strands of inquiry can be identified. Paul DiMaggio has been at the forefront of a quantitative strand, using survey research linking cultural capital to educational outcomes. Annette Lareau's research has been at the forefront of qualitative research exploring cultural capital in homes. Finally, Randall

Collins has been the major figure behind studies looking at how cultural capital influences micro level interactions between individuals. This thesis will fall within the DiMaggio strand, and will use survey research to explore the impact of cultural capital on low income students.

According to DiMaggio (1982), "active participation in prestigious status cultures may be a practical and useful strategy for low status students who aspire towards upward mobility". Even though students in the highest strata of socioeconomic status have the highest participation rate in cultural activities (Dumais, 2006), research suggests that the number of cultural activities in which students participate does not have a significant effect on academic achievement, but the interaction between cultural activities and socioeconomic status does (Dumais, 2006). Findings from past research reveal that the benefits of cultural capital are higher for low-socioeconomic status children than for high socioeconomic status children (Jaeger and Karlson, 2018). Another part of the answer in educational inequality lies in the interconnected relationship between schools' formal and informal evaluation criteria, the level of segregation in educational systems, parents' skills, resources and strategies to advance their child's schooling, and the ways in which students respond to their cultural resources (Tramonte and Willms, 2010).

Habitus

A second important concept developed by Pierre Bourdieu's original research is the concept of habitus (Bourdieu 1977). Bourdieu identified the consistent association between a person's objective position in society (wealthy, middle class, working class) and their evaluation of life chances (educational choices, occupational choices, friendship networks). These evaluations and eventual actions lead to individuals reproducing their class status. In the simplest sense, poor people make poor people decisions. Thus, class differences are reproduced

across generations because of people in different class positions acquire and embody different collections of cultural capital. This embodiment of cultural capital is called habitus.

For example, middle class and wealthy people may judge potential occupations, business opportunities, and educational institutions differently. Consider two high school students with identical test scores and levels of mental aptitude. One is born into wealth and may evaluate a humanities degree (music, literature) from an Ivy League institution as something worth attaining. He or she has been exposed to certain cultural markers that suggest to the student and her wealthy parents, that these cultural markers and the people associated with those markers are more important than the "hard skills" one can gain in college. The other student is middle class and, urged by middle class parents, will eschew such degrees and focus on more practical majors such as computer science – even if he or she attains this degree at a public university. Upon entering the marketplace, the middle-class graduate will inevitably find a well-paying middle-class job that reproduces his or her class status. Meanwhile, the person from a wealthy background has made the connections necessary to either marry into wealth, gain entry into the fast track to management, or developed the critical thinking and language skills necessary to excel at a top Ivy League graduate school.

This logic can be applied to students in primary schools. Parents and children from a poor or low-income home may make decisions – regardless of the child's ability – that leads them down a path to poverty. For example, as Annette Lareau (2003) has observed in her landmark book *Unequal Childhoods: Class, Race, and Family Life,* middle class parents teach their children, and expose their children to a variety of educational, artistic, and athletic experiences. They teach their children how to navigate social institutions and develop internal justifications for their actions. This approach is called "concerted cultivation". Meanwhile,

working class parents teach their children to follow the rules set by authority and develop their interests naturally. The emphasis is on providing a safe home environment, and children are not encouraged to explore different spaces. This approach is called "natural growth". While there are advantages and disadvantages to both parenting styles, Lareau argues that children from middle class homes develop the skills and disposition (i.e. habitus) necessary to succeed in higher education.

One can imagine that children from middle class homes will develop aspirations for jobs that are internally rewarding and that may require years of investment. They will seek out and negotiate career paths with teachers and counselors and choose college disciplines that may not be remunerative initially, but nonetheless rewarding. These students then attend graduate schools and become members of the managerial class. Meanwhile, students raised in working class or poor homes may eschew higher education because of their apprehension of educational institutions. Or they may attend college because of an external notion that it is beneficial but not have developed an internal justification of its purpose. These students may become disinterested in college or drop out altogether.

Habitus has been shown to also have a strong relationship with academic achievement (Gaddis, 2013), with some indication that this relationship is strongly positive in lower income groups. In one study, the students who performed better tended to have an elite habitus and more cultural capital (Andersen and Hansen, 2012). However, other research had different results, showing that parental support to take on new activities had a positive impact on student's reading comprehension and math achievement in low to medium socioeconomic environments but no effect in high socioeconomic environments (Jaeger, 2011).

Linking Cultural Capital, Habitus, and Educational Attainment to Low Income Students

The above considerations suggest three arguments. First, cultural capital – culturally based resources that act as a type of capital to be leveraged for gains – has been linked to academic achievement:

Cultural capital $\rightarrow$ Academic Achievement

Second, habitus can be an independent factor in academic achievement, or a mediating force between cultural capital and academic achievement, such that a person's cultural capital is embodied in and filtered through their class habitus

Cultural Capital + Habitus $\rightarrow$ Academic Achievement

Third, there is evidence that students at the tails of the class distribution – the wealthy and the poor, benefit disproportionately from cultural capital:

Social Class + Cultural Capital $\rightarrow$ Academic Achievement

These theoretical relationships form the basis of the research questions that follow.

PURPOSE OF THE STUDY

The purpose of this study is to examine the relationship between cultural capital and academic achievement. There are 3 research questions that guide this study:

1. What is the relationship between participating in cultural activities (cultural capital) and academic achievement?

2. What is the relationship between the parenting activities of the child (habitus) and academic achievement?

3. Do low income students benefit more from cultural capital and habitus than higher income students?

RESEARCH DESIGN

This research follows an exploratory, cross-sectional design, that will use quantitative methods to examine the influence that cultural capital, habitus, and involvement in extracurricular activities has on the educational achievement of students in the United States. The sample of this study includes around 14,075 participants from the National Household Education Surveys Program of 2016.

SIGNIFICANCE OF THE STUDY

This study adds to the literature on cultural capital generally and cultural mobility specifically by incorporating both habitus measures and cultural capital measures. The interaction between cultural capital (knowledge, skills, mannerisms, etc.) and habitus (dispositions and attitudes) are understudied. Second and most importantly, this study looks to identify a mechanism that can be leveraged by low income students for educational attainment.

The next chapter will provide an overview of past empirical studies that have examined the relationship between cultural capital and academic achievement.

CHAPTER II

LITERATURE REVIEW

This chapter discusses studies the relationship between cultural capital and academic achievement. The first section of this chapter discusses the theoretical framework guiding this study, cultural mobility theory. The next section discusses research that addresses the cultural mobility theory as it relates to cultural capital and academic achievement; the relationship of cultural capital, habitus and how this relationship influences cultural reproduction; and extracurricular activities used as a form of cultural capital. The chapter then concludes with a critique and summary of the reviewed literature, and the identification of this study's research questions.

THEORETICAL FRAMEWORK

Research on the relationship between cultural capital often has either the theoretical perspective of cultural reproduction or cultural mobility. Cultural Mobility is the theory that will guide this research, as it incorporates cultural capital and habitus which are measures in the research. This section will provide a succinct discussion of cultural mobility theory as well as an explanation of how it will guide my research. The section will conclude with a brief discussion of the two major components of cultural mobility theory: cultural capital and habitus.

Cultural Mobility Theory

Cultural mobility theory examines the merit of Bourdieu's cultural reproduction theory by testing the idea of status as a "cultural process" rather than an "attribute of individuals" (DiMaggio, 1982). According to DiMaggio (1982), it would be more accurate to think of the idea as "status culture participation" rather than "status group membership". The participation in

cultural activities should allow for cultural mobility in low socioeconomic status students since

DiMaggio's (1982) findings show that the impact of cultural capital is greater on the academic

achievement of less advantaged students compared to more advantaged students. Other research

backs up this finding, as Jaeger and Karlson (2018), provide results that show the relationship

between cultural capital and academic achievement being higher for more disadvantaged

students. Cultural Reproduction theory posits that because high socioeconomic status parents

have more cultural capital than low socioeconomic parents, this would mean that they transmit

more of it to their children, who would then perform better in school environments that award

the possession of cultural capital (Jaeger and Karlson, 2018). The cultural reproduction approach

may be true in some circumstances, but cultural mobility theory considers the acquisition of

cultural capital in less advantaged students, which the cultural reproduction theory does not.

Cultural mobility theory argues that participation in cultural activities may be practical and

useful for low socioeconomic status students who may could use the cultural capital for upward

mobility (DiMaggio, 1982). Habitus then becomes relevant as high socioeconomic status and

stagnated low socioeconomic status students interact with cultural capital differently than the

mobile group of low socioeconomic students (DiMaggio, 1982). Habitus is the component that

would determine whether a disadvantaged student will have upward mobility of remain

nonmobile.

     Cultural mobility theory guides my research by helping me figure out which measures

will be useful. Being as cultural capital and habitus are both components of the cultural mobility

theory, they will both be independent variables measured against the dependent variable of

academic achievement in this study. Cultural mobility theory has also helped formulate the

research questions used in this study. Cultural mobility theory will also help choose the most relevant control variables for the study.

Cultural Capital

Cultural capital is a form of currency that, like other forms of capital, can be appropriated by an individual and used as a medium of exchange. Research has shown cultural capital to be attitudes about culture, participation in high-status activities, cultural knowledge, and cultural understanding. Cultural mobility theory views cultural capital as participation in status culture (DiMaggio, 1982). Research has shown that while higher socioeconomic classes tend to inherently possess more cultural capital, lower socioeconomic classes tend to benefit more from the acquisition of cultural capital, especially in relation to academic achievement. This study will measure cultural capital as participation in cultural activities.

Habitus

Habitus is an internalized viewpoint from which a person sees the world. While it is an unconscious internalization of one's class position and the expectations of that class, it is also the learned disposition of one's standing in society. Habitus can influence how well a person thinks they can do something. Research has shown that habitus has a strong effect on educational achievement (Gaddis, 2013). Cultural mobility theory views habitus as the difference between nonmobile low status students and low status students who pursue upward mobility (DiMaggio, 1982). This study will measure habitus as things the student does at home that could influence their worldview.

In reviewing the literature, cultural capital inputs are shown to be more impactful for disadvantaged students compared to their non-disadvantaged counterparts (Jaeger and Karlson, 2018), dynamic cultural capital having stronger effects on students' schooling outcomes than

static cultural capital which has more modest effects (Tramonte and Willms, 2010). A student who is classified as belonging to the low socioeconomic class is more likely to benefit from cultural participation compared to their high socioeconomic counterparts (Dumais, 2006), which falls in line with the findings presented by Paul DiMaggio that show the impact of cultural capital being greater on the grades of less advantaged youth (DiMaggio, 1982). These findings support Paul DiMaggio's model of cultural mobility by exhibiting that "the acquisition and display of prestigious cultural resources may be a vital part of upward mobility" (DiMaggio, 1982). Michael Gaddis demonstrated that habitus has a stronger effect on educational achievement than cultural capital (Gaddis, 2013). Andersen and Hansen (2012), demonstrated the idea that basically the classes with the most cultural capital perform better on tests, which is connected to cultural reproduction and highlights the implication of class inequality in education. Dumais (2006), exhibited a general pattern that as SES increases, the percentage of children participating in cultural activities increases. Participation in public or formal cultural activities is shown to have little to no effect on intellectual resources that could give an advantage in school, while reading is shown to positively impact the intellectual resources of students (Sullivan, 2001). An earlier study from Jaeger shows "that parental encouragement to take on hobbies has a positive effect on children's reading comprehension and math achievement in low and medium SES environments but no effect in high SES environments", (Jaeger, 2011). In a study conducted by Covay and Carbonaro it is revealed that "participation in sports, clubs, dance, music, art, and performing arts is significantly and positively related to an increase in reading test scores" (Covay and Carbonaro, 2010), which is similar to a finding that students who took an art class outside of school, as well as other extracurricular activities between the 8th and 10th grades have a

higher likelihood of attending college, as well as museum going being an activity that increases this likelihood (Kaufman and Gabler, 2004).

CULTURAL CAPITAL AND ACADEMIC ACHIEVEMENT

The theme of this section is the relationship between cultural capital and academic achievement. This section will review and discuss research that presents findings exhibiting the significant positive relationship between cultural capital and academic achievement, which supports Paul DiMaggio's theory of cultural mobility. The research here comes from DiMaggio (1982), Dumais (2006), Tramonte and Willms (2010), and Jaeger and Karlson (2018). DiMaggio, (1982), discusses the inequality in academic achievement and cultural mobility as a product of lower levels of cultural capital in the lower strata of socioeconomic status. Jaeger and Karlson (2018), discuss the impact of cultural capital being higher for more disadvantaged students in terms of academic achievement. Tramonte and Willms (2010), discuss the ways in which students respond to various forms of cultural inputs. Dumais (2006), discusses the interaction between cultural activities and socioeconomic status, and how this interaction influences academic achievement.

DiMaggio (1982), found that the cultural mobility model shows that the impact of cultural capital will be greater on grades of less advantaged students compared when compared to their high SES counterparts. Data in this study was collected from a sample of 2,906 men and women (1427 men and 1479 women) in the 11th grade. The dataset came from PROJECT TALENT included only white respondents, which is by far one its biggest limitations, however the data from PROJECT TALENT included the most robust variety of measures of cultural activities, information and attitudes during the time in which the study was conducted

(DiMaggio, 1982). Another limitation of the study is the use of self-reported grades and involvement in cultural activities, which included art, music and literature (DiMaggio, 1982). Taking that into consideration, the dependent variable was the students' grades and cultural activities and attitudes were the measurement variables of interest. The hypotheses from this study state that cultural capital is positively related to school success, in this case, to high school grades, cultural capital mediates the relationship between family background and school outcomes and returns to cultural capital are highest for students who are least advantaged respectively (DiMaggio, 1982). The results for hypothesis 2, provided confirmation that cultural capital is positively related to grades of the respondents; being as the standardized regression coefficients were significant at the $p \leq .001$ level for men and women in all subjects except for mathematics (DiMaggio, 1982). Hypothesis 3a was inconclusive, being that the findings provide limited support about the extent to which cultural capital mediates the relationship between family background and school success (DiMaggio, 1982). Hypothesis 4b, which focuses on the cultural mobility model, is supported by the findings that show the impact of cultural capital being greater on the grades of less advantaged students, which allows for a certain degree of upward mobility (DiMaggio, 1982).

  Jaeger and Karlson (2018), use data from the 1979 National Longitudinal Survey of Youth and its Child and young adult supplement. The sample included 12,686 respondents aged 14 to 22 years old in 1979. Their final analytical sample was restricted to 2,986 children born between 1975 and 1987 to 1,965 mothers. The sample was reduced to consider the outcome variable of educational attainment and missing responses. Jaeger and Karlson (2018), conceptualized how differences in the parent's cultural capital input in their children according to SES level, and in children's benefits from cultural capital according to SES level, would affect the children's

educational attainment. Jaeger and Karlson (2018), use a counterfactual approach, in order to analyze the role of cultural capital on a macro level. The dependent variable in this study was the children's highest reported years of schooling completed; the independent variables, cultural capital and parental socioeconomic status, had summary scales constructed that would serve as measures for the concepts (Jaeger and Karlson). Cultural Capital's scale was captured using aspects of cultural capital that could be measured such as familiarity with legitimate culture (Jaeger and Karlson, 2018). Familiarity with legitimate culture was captured by three indicators: how often the child is taken to an outing, reading, cultural communication and extracurricular activities (Jaeger and Karlson, 2018). Parental socioeconomic status is captured by indicators that include average annual family income over childhood, highest socioeconomic status ever reported by a parent, and mother's years of completed schooling (Jaeger and Karlson, 2018). Control variables include mother's marital status, number of siblings, race and gender (Jaeger and Karlson, 2018). The empirical framework of this study has two major components that work together. The first component is endogenous switching regression models, used to estimate factual and counterfactual distributions of children's educational attainment (Jaeger and Karlson, 2018). The second component uses the predictions from the endogenous switching regression models to calculate the socioeconomic gradient in children's education (Jaeger and Karlson, 2018). Jaeger and Karlson (2018), use the predictions from the endogenous switching regression models to calculate children's expected years of completed schooling under different scenarios. The results indicated that at the macro level, interventions that target the group of parents who provide low cultural capital inputs would be less effective in reducing educational inequality than interventions that target different socioeconomic groups and different cultural capital input groups (Jaeger and Karlson, 2018).

Findings in this study show that the benefits of cultural capital is higher for low-socioeconomic status children than for high socioeconomic status children (Jaeger and Karlson, 2018). These results are consistent with past research that has found at the individual level, the effect of cultural capital is higher for low socioeconomic status children than for high socioeconomic status children on academic achievement and attainment (Jaeger and Karlson, 2018). Limitations from this study include the fact that it only includes 2 socioeconomic groups and 2 cultural capital input groups, which makes the analysis simpler, but takes away from the macro approach (Jaeger and Karlson, 2018), and some of the missing controls, which could have been due to the age of the dataset. This research's findings show that the effect of cultural capital is higher for more disadvantaged students in terms of academic achievement (Jaeger and Karlson, 2018), which should allow for a degree of cultural mobility (DiMaggio, 1982).

Tramonte and Willms (2010), used a sample of 224,058 students in 8364 schools from 28 countries who were all around the age of 15 (Tramonte and Willms, 2010). The data used in this research accounted for a comprehensive test of reading literacy, student background, family structure, education and occupation of the mother and father; various measures of the attitudes, habits and expectations of students and the relationships of students with their peers, parents, and teachers (Tramonte and Willms, 2010). Using that, Tramonte and Willms (2010), measured reading literacy and sense of belonging at school, which were dependent variables; occupational aspirations, parent's level of education, parental occupation, and sex, which were control variables; static and relational cultural capital using indexes, and variation between in-school reading literacy which were the outcome measures of interest. Static cultural capital refers to participation in highbrow activities and practices of parents, and relational cultural capital is cultural interactions and communications between parents and children (Tramonte and Willms,

2010). For each of the outcome measures they used a basic regression model for each country, using OLS estimation (Tramonte and Willms, 2010). The results provide evidence that the relational form of cultural capital has strong effects on students' schooling outcomes, while the static form has less noticeable effects (Tramonte and Willms, 2010). The findings also suggest that the effects of relational and static cultural capital are related to the extent to which students are allocated to schools, as measured by the proportion of variance in reading performance that is among schools (Tramonte and Willms, 2010). Tramonte and Willms' (2010) findings suggest that part of the answer in educational inequality lies in an interconnected relationship between various schools' formal and informal evaluation criteria, the level of segregation in educational systems, parents' skills, resources and strategies to advance their child's schooling, and the ways in which students respond to their cultural resources.

Using data from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–1999, Dumais (2006) had a final sample that contained 7290 White, African American, and Hispanic students from public schools in the United States (Dumais, 2006). Instead of using reported grades, this study uses a rating of the children's language arts skills compared to other students in the same class and the teacher's rating of students' mathematical skills; these were the dependent variables (Dumais, 2006). Independent variables include race and gender which both used dummy variables, socioeconomic status of the household at the time of the study which was captured using 5 components: father/male guardian's education; mother/female guardian's education; father/male guardian's occupation (recoded as a prestige score); mother/female guardian's occupation (recoded as a prestige score); and household income (Dumais, 2006). The principal variables of measure included two types of cultural activities: "one-time cultural activities" and "long-term lessons" (Dumais, 2006). Findings shown that in both types of cultural

activities, students in the highest strata of socioeconomic status had the highest participation rate, and students on the lowest socioeconomic strata had the lowest amount of involvement (Dumais, 2006). The general pattern from these findings show that as socioeconomic status increases the percentage of participation increases, with the differences in participation rates between each socioeconomic quantile being significant for every activity (Dumais, 2006). Findings also suggest that the number of cultural activities in which students participate does not have a significant effect on the teacher's evaluations, but the interaction between cultural activities and socioeconomic status does (Dumais, 2006). Similar to other findings in this section, low socioeconomic status students were found to be more likely to benefit from cultural capital inputs than their higher socioeconomic status counterparts (Dumais, 2006).

INFLUENCE OF HABITUS ON ACADEMIC ACHIEVEMENT

The research examined in this section focuses on the theme of including habitus alongside cultural capital in analyses that look at academic achievement. The research here ties into the theory of cultural reproduction, being as they confirm the cultural reproduction model. Gaddis (2013), discusses the relationship between habitus and academic achievement and compares it to the relationship between cultural capital and academic achievement. Andersen and Hansen (2012), discuss habitus working in conjunction with cultural capital to benefit students from higher classes as a result of the cultural reproduction theory. Jaeger (2011), discusses the relationship between encouragement to participate in cultural capital activities and academic achievement. Sullivan (2001), examines how cultural capital is distributed across the various social classes and educational levels, the extent to which cultural capital is passed down from parent to child, and the effect cultural capital has on academic achievement.

Gaddis (2013), first evaluated the effect cultural capital has on GPA, then included habitus in the model to test its influence in the relationship between cultural capital and educational achievement. The sample included 959 youth between the ages of 9 and 16 who were Big Brothers and Big Sisters applicants waiting for assignment to a mentor in eight selected cities (Philadelphia, PA; Rochester, NY; Minneapolis, MN; Columbus, OH; Wichita, KS; Houston, TX; San Antonio, TX; and Phoenix, AZ), (Gaddis, 2013). The study included 4 operationalizations of cultural capital, 2 operationalizations of habitus, and other variables of interest. The main dependent variable of interest was GPA, and the control variables included age, sex, race, socioeconomic status, location (city), urbanicity, family household structure, number of siblings, and if a youth has a learning disability (Gaddis, 2013). Analysis included a first difference model to examine the variables at the beginning of the study and at the end of the study, since it is longitudinal study. Gaddis (2013), tested the indirect effect of cultural capital on GPA by multiplying the effect of cultural capital on habitus with the effect of habitus on GPA. Limitations include a limited number of outcome variables, self-report bias of the self-reported GPA, the short time frame of the longitudinal design (18 months), the age range, and the sample not being nationally representative. Results shown strong positive effects for habitus on GPA even when controlling for cultural capital and prior ability via first differences tests (Gaddis, 2013). However, adding habitus measures into the models erases any significant effects of cultural capital on GPA (Gaddis, 2013). Various measures of cultural capital have significant effects on both GPA and habitus for youth, and the inclusion of the habitus variables in the models predicting GPA indicates that cultural capital may have direct effects on habitus (Gaddis, 2013). According to Gaddis (2013), the results show that habitus has a stronger effect on educational achievement than cultural capital.

Andersen and Hansen's (2012) sample consisted of the complete Norwegian cohorts leaving lower secondary level school at the age of 16 years in the years 2003-2006, approximately 280,000 individuals. Being that this was a longitudinal study, the students were followed up with 3 years after the initial data collection, at the end of their secondary schooling (Andersen and Hansen, 2012). Andersen and Hansen (2012), collected data on grades and school performance for the students and occupation, income, and education of the parents from public registers available on the cohorts. Andersen and Hansen (2012), used 13 class classifications from the Oslo Register Data Class Scheme (ORDC) for the purpose of this study. Each class had three factions which included: cultural, economic, and professional, which related to their respective occupations. Andersen and Hansen (2012), used a cultural dominance approach for analysis, meaning that they used the highest class grouping out of the parents. For example, if the mom was high class, and the dad was middle class, then they would have used the mother's class status for the study. Andersen and Hansen (2012), used OLS regression to study variations in the different fields of study, they then used fixed effects regression analyses testing for differences in the impact of class on the results on oral and written exams. The last set of analysis focused on the development of the impact of class during the educational career (Andersen and Hansen, 2012). The higher classes tended to have the highest level of performance, and on the same class level those originating in the cultural faction had the best results (Andersen and Hansen, 2012). A further striking finding is that this pattern is found in all educational fields (Andresen and Hansen, 2012). At the elite level, it is the students originating in the cultural faction that has the highest level of performance, whereas those originating in the economic elite score lowest (Andersen and Hansen, 2012). This pattern is also found among the upper-middle and lower-middle classes (Andersen and Hansen, 2012). The third hypothesis is also confirmed by the data,

showing that class inequalities exist in the results of oral exams (Andersen and Hansen, 2012).

Basically, the classes with the most cultural capital and habitus best suited for academics

performed better in school (Andersen and Hansen, 2012). The implications of this confirm the

cultural reproduction model as it involved habitus working in conjunction with cultural capital to

benefit students from higher classes. The students who performed better tended to have better

habitus and more cultural capital, as shown by Andersen and Hansen (2012).

Using data collected from the National Longitudinal Survey of Youth–Children and

Young Adults survey, Jaeger (2011), used a sample of 12,686 men and women aged 14 to 22 to

examine the effect cultural capital has on academic achievement. The study itself focused on the

offspring of the original sample, who were ages 6 through 14 for the purposes of the study

(Jaeger, 2011). Jaeger's (2011) dependent variable was academic achievement which was

measured using performance on the Peabody Individual Achievement Tests (PIAT) which

measured reading recognition, reading comprehension, and math ability (Jaeger, 2011). The

independent variable, cultural capital was measured using the mother's data (Jaeger, 2011).

Jaeger (2011), used things like whether the child has been taken to a museum, musical/ theatrical

performance, how many books the child has, does the child receive any special lessons, and

whether the child is encouraged to start or maintain any hobbies. Control variables included

child's sex, age, parents' education, and family income, a dummy variable measuring whether the

father was in the child's life, family size, and race (Jaeger, 2011). The goal of Jaeger's (2011)

empirical analysis was to estimate the causal effect of cultural capital on academic achievement.

In order to do this, Jaeger (2011), used 7 advanced equations that build upon each other. The

final equation, which was the equation used to calculate the effect that cultural capital has on

academic achievement "is a within-family, within-individual or double fixed effect regression

model, which has differenced out all fixed, unobserved effects specific to families and to individuals" (Jaeger, 2011). The analysis suggests that cultural capital has a direct casual effect on academic achievement (Jaeger, 2011). Cultural participation has a statistically significant and positive effect on academic achievement in high SES environments but no effect in low SES environments, which supports cultural reproduction theory, (Jaeger, 2011). The amount that children read for enjoyment is significantly higher in high SES households that in low SES households. The effect of the child's number of books has a stronger effect on academic achievement in low and medium SES environments than in high SES environments (Jaeger, 2011). Jaeger found "that the negative effect of participating in extracurricular activities on reading achievement appears to be stronger in low SES environments than in high SES environments" (Jaeger, 2011), it was the opposite for math achievements. Lastly, Jaeger (2011) found "that parental encouragement to take on hobbies has a positive effect on children's reading comprehension and math achievement in low and medium SES environments but no effect in high SES environments" (Jaeger, 2011).

Sullivan (2001), surveyed around 557 students around the age of 16, and got a final sample of 465. The sample came from 4 schools and had good distribution of social class (Sullivan, 2001). All of the common measurements were taken, with the measurements of cultural capital being cultural activities (reading, type of television watched, music, and participation in formal and informal activities), cultural knowledge (tested knowledge of famous cultural figures), and language (active and passive vocabulary test scores), (Sullivan, 2001). Sullivan (2001), found that parental cultural capital is closely tied to parental socioeconomic status, which is said to back up the model of cultural reproduction, specifically that cultural capital is unequally distributed according to socioeconomic status and education. The part of

cultural reproduction theory that assumes cultural capital being passed down from parent to child is strongly supported according to Sullivan (2001). It was also found that cultural capital significantly affects students' academic achievement (Sullivan, 2001), which supports both the cultural mobility theory and the cultural reproduction theory.

EXTRACURICULAR ACTIVITIES AS A FORM OF CULTURAL CAPITAL

The research in this section follows the theme of extracurricular activities being used as a form of cultural capital. The studies examine the effects that extracurricular activities have on academic achievement, and how these effects relate to cultural capital. Kaufman and Gabler (2004), examine the relationship between participation in extracurricular activities and college admission. Covay and Carbonaro (2010), examine the relationship between participation in extracurricular activities and learning.

Kaufman and Gabler (2004), used data from the National Education Longitudinal Survey to examine the relationship between male and female participation in extracurricular activities and the probability of these students going to college. In their second hypothesis Kaufman and Gabler (2004), posit that if cultural capital theory is correct then participation in school musical, theater and drama groups should be more positively related to college admissions than school hobby clubs, such as photography or chess. When controlling for various factors, it was found that no consistent or significant relationship could be found on the relationship between reportable activities and probability of going to college (Kaufman and Gabler, 2004). Hypothesis 2 was ultimately disproven by the findings, as Kaufman and Gabler (2004), state that involvement in drama, theater, musical, or arts extracurricular activities is not a significant predictor of college admission.

Covay and Carbonaro's (2010) dataset came from the Early Childhood Longitudinal Study – Kindergarten Class of 1998-1999, which has a nationally represented sample of 21,260 children. The measurements included extracurricular activities as independent variables. The participation in extracurricular activities (music lessons, dance lessons, performing art activities, art lessons, sports, and clubs in the past year outside of school hour) as a dependent variable, and "approaches to learning" as the operationalization of noncognitive skills, which was measured using a scale that included student's attentiveness, organization, flexibility, task persistence, learning independence, and eagerness to learn (Covay and Carbonaro, 2010). Family structure, race and gender were all controlled for (Covay and Carbonaro, 2010). The results showed that all socioeconomic groups had high levels of extracurricular participation, but as socioeconomic status increases so does participation across all of the extracurricular activities (Covay and Carbonaro, 2010). Also, as the parents' education level increased, the proportion of students who participated in extracurricular activities increased (Covay and Carbonaro, 2010). The findings indicated that five of the six categories of extracurricular activities had a significant positive relationship with approaches to learning (Covay and Carbonaro, 2010). The findings also indicated that participation in "sports, clubs, dance, music, art, and performing arts had a significantly positive relationship to an increase in reading test scores (Covay and Carbonaro, 2010).

SUMMARY AND CRITIQUE OF THE LITERATURE

The research reviewed in this chapter had a few themes that emerged, examining how is cultural capital plays into cultural reproduction, how cultural capital is mediated by habitus in

relation to cultural mobility, and how certain extracurricular activities relate to and can be used as a form of cultural capital.

Research that followed the first theme of cultural capital and academic achievement showed that low socioeconomic students are more likely to benefit from cultural participation compared to their high socioeconomic counterparts (Dumais, 2006), which falls in line with the findings presented by Paul DiMaggio that show the impact of cultural capital being greater on the grades of less advantaged students (DiMaggio, 1982). Other research in the first section highlighted how cultural capital inputs are shown to be more impactful for disadvantaged students compared to their non-disadvantaged counterparts (Jaeger and Karlson, 2018), as well as dynamic cultural capital having stronger effects on students' schooling outcomes than static cultural capital which has more modest effects (Tramonte and Willms, 2010).

Research falling under the second theme of the relationship between habitus and cultural capital found that cultural capital is unequally distributed according to socioeconomic status and education of parents; it was also found that cultural capital is passed down to children unequally, being that high socioeconomic status families were able to pass on cultural capital easier than low socioeconomic status families. Gaddis (2013), found that habitus has a bigger influence on academic achievement than cultural capital does. Andersen and Hansen (2012), demonstrated that the classes with the most cultural capital perform better on tests, while Dumais (2006), exhibited a general pattern that as SES increases, the percentage of children participating in cultural activities increases. Sullivan (2001), showed that participation in cultural activities is shown to have little to no effect on intellectual resources that could give an advantage in school, while reading is shown to positively impact the intellectual resources of students (Sullivan,

2001). Jaeger (2011), found that even encouragement to participate in cultural activities has a positive effect on academic achievement.

The final section of research reviewed in this chapter followed the theme that certain extracurricular or afterschool activities had a similar impact to cultural capital on students' academic achievement, as participation in such activities had a significant and positive relationship to test scores. Covay and Carbonaro (2010) found that participation in afterschool activities has a positive impact on academic achievement, while Kaufman and Gabler (2004) found that students who participated in certain extracurricular activities through 8th and 10th grades have a higher likelihood of attending college.

In critiquing the research in this chapter, various limitations arose that are worth noting. The first limitation worth mentioning is that cultural capital is treated as a one-dimensional concept by many of the studies in the research. There are various ways to define cultural capital, multiple ways to measure it, and different approaches to it. Research on the topic either focuses on the participation aspect of cultural capital while leaving out the acquisitional aspect or vice versa. The current research takes both aspects of cultural capital into account. Some of the data in past research came from outside of the United States, which is not a weakness within itself, however it is for the purpose of this study, which is interested in students in the United States. Other limitations include certain variables that were not controlled for in some of the studies, including disabilities, country of origin, religion, native language, intelligence and sexual orientation. Another limitation of the past research is the use of self-reported grades and involvement in cultural activities. This allows for some self-report bias. The short time frame of the longitudinal designs (18 months), the age range of a few of the studies, and the samples not being nationally representative are more limitations that can be seen in past studies. The current

research will address most, but not all of these limitations, as the current research has limitations

of its own.

CHAPTER III

METHODOLOGY

This chapter includes an overview if the research methodology that will be used to guide this study. The methodology begins with the presentation of the research questions followed by an overview of the data. Following that, a discussion on the research design is provided, after that a detailed discussion on the variables used in the study is provided. A discussion on the data analysis that will be used and a discussion of the limitations of this study ends the chapter.

RESEARCH DESIGN

This research will follow an exploratory, cross-sectional design, that will use quantitative methods to examine the influence that cultural capital and habitus on low income student academic achievement. The sample of this study will include around 14,075 participants from the National Household Education Surveys Program of 2016.

RESEARCH QUESTIONS

This study is being designed to examine the influence that cultural capital and habitus have on the academic achievements of students in the United States. The following research questions will be used to examine this topic:

1. What is the relationship between participating in cultural activities (cultural capital) and academic achievement?

2. What is the relationship between the parenting activities of the child (habitus) and academic achievement?

3. Do low income students benefit more from cultural capital and habitus than higher income students?

DATA SOURCE

The data in this study will come from the Parents and Family in Education: Results from the National Household Education Surveys Program of 2016 (NHES). The original data source was collected to examine, analyze and report data to the education of the United States and similar countries. The 2016 data was designed and used specifically to address high-priority education needs in the United States. The United States Department of Commerce: Economics and Statistics Administration which worked in conjunction with the United States Census Bureau to administer the surveys and collect the data examined in this study.

The sample of 14,075 parents across the continental United States were asked to complete this survey as the final part of a larger survey conducted by the U.S. Census Bureau. About 17% of the sample consisted of citizens living in the Northeast region of the United States, 37% of the sample came from the U.S. South, 22% from the Midwest and 24% from the west. Around 94% of the sample (13,255) are participants whose children were born inside of the United States, with 86.9% of the sample having English as their primary language spoken at home. The demographics for the children of the respondents consisted of a somewhat even distribution of males and females, being 51.3% male and 48.7% female. Over half of the respondents identify their children as white (56.7%) with the remainder being split between those who children are identified as Hispanic (21%), black (9.8%), and any other race including multiple races (12.5%). The data source focused more on the grade in which the children were enrolled in, instead of age; with the 12th grade being coded as 15 and part-time kindergarten

being coded as 2, the mean grade attended by the children is 9.66, which indicates the average grade range to be between the 6th and 7th grades. Socioeconomic status of the respondents was captured with a few measures including total household income, whether the household receives government assistance, educational attainment of the parents, and whether the household has access to the internet. For total income, the sample was distributed well throughout the four income levels of income, with 20% making from $0 to $30,000, 22.2% making between $30,001 and $60,000, 23.7% making between $60,001 and $75,000, and the largest group (34.1%) making over $75,000. While 42.1% of whites and 40.7% of other races in the sample hit that $75,000 income mark, only 14% of blacks and 17.9% of Hispanics hit that total income mark. Approximately 79% of the respondents indicate that they receive no assistance from the government whatsoever, while the reaming 21% have at one point. Noticeably, blacks and Hispanics are similar to each other when it comes to government assistance with 40.2% of blacks and 33% of Hispanics receiving some assistance at one point, compared to the 13.9% of whites and 21.2% of all other races. Around 32% of the sample had some technical or vocational education after high school and about 28.2% are college graduates, while about 14% finished with a high school degree. Only about 18.5% had graduate or professional schooling, and only 7.8% never finished high school, so the educational attainment of the parents was very much centered around the vocational and college level. Over 98% of the sample has access to the internet whether it be on a smart phone, home computer or both. About, 17.8% of the sample reported that their child has had or still has a disability at the time of the survey, with about 98% of the sample reporting their child having good to excellent health at the time of the survey. Over 62% of the sample worked over 35 hours a week at the time of the survey, going alongside a little over 20% not being in the workforce.

VARIABLES IN THE STUDY

Dependent Variable

The dependent variable in this is planned to be the academic achievement of the children from the NHES 2016 survey. The dependent variable will be measured using the question "Overall, across all subjects, what grades does this child get?". Responses will be coded as 1 being mostly A's, 2 being mostly B's, 3 being mostly C's, 4 being mostly D's or lower and 5 being that the child's school does not give these grades.

Independent Variables

There will be 3 main independent variables used in this study: a measure of cultural capital, and two measures of habitus.

Cultural Capital will be measured by participation in cultural activities by the children of the respondents. Cultural capital is a scale level of measurement, which will be created using responses from the question "In the past month, has anyone in your family done the following things with this child?", which included the choices of "Visited a library", "Visited a bookstore", "Gone to a play, Concert or any other live show", "Visited an art gallery, museum, or historical site", "Visited a zoo or aquarium", "Attended an event sponsored by a community, religious or ethnic group", "Attended an athletic event or sporting event outside of school which this child was not a player". A scale reliability analysis, which is generally used to examine the consistency of each item of a scale (Sweet and Grace-Martin, 2012), will be used to show how consistent each cultural activity measures cultural capital.

Habitus is indicated by two measures - the things the child does at home that might influence their worldview (habitus-home) and, as per research by Lareau, the amount of

involvement adults have in their child's school life (habitus-parents). Both measurements are scales.

Habitus – Home: This scale will be created using the responses from the question "In the past week, has anyone in your family done the following things with this child?" which included the choices of "Told him/her a story", "Done activities like arts and crafts, coloring, painting, pasting, or using clay", "Played board games or did puzzles with him/her", "Worked on a project like building, making, or fixing something", "Played sports, active games, or exercised together", "Discussed with him/her how to manage time", "Talked with him/her about the family's history or ethnic heritage". A scale reliability analysis will be used to show how consistent each item measures habitus.

Habitus – Parents: This scale will be created using the response from the questions "Since the beginning of the school year, has any adult in the child's household done any of the following things at this child's school?" to which the choices are "Attended a school or class event, such as a play, dance, science fair, or sports event", "Served as a volunteer in this child's classroom or elsewhere in school", "Attended a general school meeting, for example an open-house, or back-to-school night", "Attended a meeting of the parent-teacher organization or association", "Gone to regularly scheduled parent-teacher conference with this child's teacher", "Participated in fundraising for the school", "Served on a school committee", "Met with a guidance counselor in person" ; and "During the school year, about how days in an average week does anyone in the in your household help this child with his/her homework?" to which the responses are "Less than 1 time a week", "1 to 2 days a week", "3 to 4 days a week", "5 or more days a week", and "never". A scale reliability analysis will be used to show how consistent each question measures household involvement in school activities.

Control Variables

The control variables in this study are the child's health and background which are scale level measurements.

The child's health will be measured using the questions "In general, how would you describe this child's health" and "Has a health or education professional told you that this child could have any of the following : an intellectual disability, a speech or language impairment, a serious emotional disturbance, deafness or another hearing impairment, blindness, or another visual impairment not corrected with glasses, an orthopedic impairment, autism, pervasive developmental disorder (PDD), attention deficit disorder (ADD or ADHD), a specific learning disability, a developmental disability, traumatic brain injury, another health impairment lasting 6 months or more".

The child's socioeconomic status will be measured using the questions "What is the highest grade or level of school completed that this parent or guardian has completed?", and "Which category best fits the total income of all persons in your household over the past 12 months?".

Table 1. Variables in the Study		
DEPENDENT VARIABLE *Academic Achievement*	OPERATIONALIZATION Overall, across all subjects, what grades does this child get?	CODING 1 = mostly A's 2 = mostly B's 3 = mostly C's 4 = mostly D's or lower and 5 = the child's school does not give these grades.
INDEPENDENT VARIABLES *Cultural Capital*	In the past month, has anyone in your family done the following things with this child?	Scale
Habitus-Home	In the past week, has anyone in your family done the following things with this child?	Scale
Habitus - Parents	Since the beginning of the school year, has any adult in the child's household done any of the following things at this child's school? / During the school year, about how days in an average week does anyone in the in your household help this child with his/her homework?	Scale
CONTROL VARIABLES *The Child's Health*	Has a health or education professional told you that this child could have any of the following disabilities?	Dichotomous
Socioeconomic Status	What is the highest grade or level of school that this parent or guardian has completed? / Which category best fits the total income of all persons in your household over the past 12 months? / What is the child's race and ethnicity	Dichotomous

DATA ANALYSIS

The analytical plan is as follows (Figure 1)

Figure 1
Data Analysis Roadmap
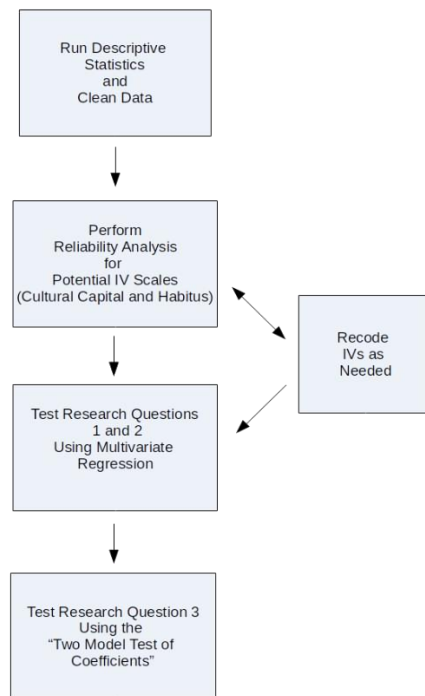
1. Variables selected for analysis will be recoded as needed, and descriptive statistics will be generated.

2. The two independent variables – cultural capital and habitus – are tied to three batteries of questions (one for cultural capital, two for habitus). These batteries may be turned into scales. A reliability analysis will be conducted on each battery of questions to determine in what survey questions, if any, can be used to create cultural capital and habitus scales. Based upon the results of the reliability analysis, questions will be recoded into scales.

3. The first two research questions - "What is the relationship between participating in cultural activities (cultural capital) and academic achievement?", and "What is the relationship between the parenting activities of the child (habitus) and academic achievement?" can be tested using a standard approach of producing bivariate statistics and standard multivariate linear regression models.

4. The third research question - "Do low income students benefit more from cultural capital and habitus than higher income students?" can be answered using the equality of regression coefficients test (Paternoster et al. 1998). This test requires that a sample be split into two sub-samples, and the same regression model run with both samples. Using the formula suggested by Paternoster et al. (1998), a determination can be made if the effects of variables are significantly different by population.

The first stage of the analysis, preliminary descriptive statistics, as well as other research considerations, are discussed below.

Descriptive Statistics

Given that the dependent variable in this study is an continuous ordinal level measurement, this study will use mode and median as measures of central tendency and standard deviation (SD) as a measure of dispersion being that those are they are the most appropriate to use when the dependent variable is an ordinal level of measurement (Sweet and Grace-Martin, 2012). A single model outlining the descriptive statistics will be used in this section.

The sample of 14,075 parents across the continental United States were asked to complete this survey as the final part of a larger survey conducted by the U.S. Census Bureau. About 17% of the sample consisted of citizens living in the Northeast region of the United States, 37% of the sample came from the U.S. South, 22% from the Midwest and 24% from the

west. Around 94% of the sample (13,255) are participants whose children were born inside of the

United States, with 86.9% of the sample having English as their primary language spoken at

home. The demographics for the children of the respondents consisted of a somewhat even

distribution of males and females, being 51.3% male and 48.7% female. Over half of the

respondents identify their children as white (56.7%) with the remainder being split between those

who children are identified as Hispanic (21%), black (9.8%), and any other race including

multiple races (12.5%). The data source focused more on the grade in which the children were

enrolled in, instead of age; with the 12th grade being coded as 15 and part-time kindergarten

being coded as 2, the mean grade attended by the children is 9.66, which indicates the average

grade range to be between the 6th and 7th grades. Socioeconomic status of the respondents was

captured with a few measures including total household income, whether the household receives

government assistance, educational attainment of the parents, and whether the household has

access to the internet. For total income, the sample was distributed well throughout the four

income levels of income, with 20% making from $0 to $30,000, 22.2% making between $30,001

and $60,000, 23.7% making between $60,001 and $75,000, and the largest group (34.1%)

making over $75,000. While 42.1% of whites and 40.7% of other races in the sample hit that

$75,000 income mark, only 14% of blacks and 17.9% of Hispanics hit that total income mark.

Approximately 79% of the respondents indicate that they receive no assistance from the

government whatsoever, while the reaming 21% have at one point. Noticeably, blacks and

Hispanics are similar to each other when it comes to government assistance with 40.2% of blacks

and 33% of Hispanics receiving some assistance at one point, compared to the 13.9% of whites

and 21.2% of all other races. Around 32% of the sample had some technical or vocational

education after high school and about 28.2% are college graduates, while about 14% finished

with a high school degree. Only about 18.5% had graduate or professional schooling, and only 7.8% never finished high school, so the educational attainment of the parents was very much centered around the vocational and college level. Over 98% of the sample has access to the internet whether it be on a smart phone, home computer or both. About, 17.8% of the sample reported that their child has had or still has a disability at the time of the survey, with about 98% of the sample reporting their child having good to excellent health at the time of the survey. Over 62% of the sample worked over 35 hours a week at the time of the survey, going alongside a little over 20% not being in the workforce.

Bivariate Analysis

Given that the dependent variable is an ordinal level of measurement, this study will use a correlation test to examine the linear relationship between the dependent variable and the independent variables. According to Sweet and Grace-Martin (2012), a correlation test is the most appropriate bivariate technique for variables with an ordinal level of measurement; the dependent variable of academic achievement is a continuous ordinal level variable which calls for the use of a correlation test. At the bivariate level this study will use 1 model that will look at the relationship between the dependent variable and each independent variable separately.

Multivariate Analysis

The multivariate level of analysis calls for the use of linear regression models for continuous ordinal level variables. According to Sweet and Grace-Martin (2012), linear regression models are the most appropriate technique used to examine the relationship between the dependent, independent, and control variables when the dependent variable is an ordinal level of measurement. In a logistic regression model, the effects of each independent variable on the dependent variable is tested while holding all the other variables constant, therefore adjusting for

the confounding effects of the other variables in the multivariate analysis (Sweet and Grace-Martin, 2012). The multivariate analysis will need 2 separate models to fully analyze the data. In the first model, each of the independent variables will be tested against the independent variable without the influence of the control variables. The second model will test the dependent variable against the independent variables with the control variables to see if the relationship between dependent and independent variables still hold with the influence of the control variables.

Significance Level

Based on previous research done on the topic, the p-value, which reveals the likelihood that chance explains an observed pattern (Sweet and Grace-Martin, 2012), will be set to 0.05.

This chapter provided the research design, research questions, data source, variables in the study, data analysis, and limitations of the study. The next chapter will present and discuss the data analysis and findings of this study.

CHAPTER IV

DATA ANALYSIS

This chapter presents and discusses the analytical process of the study, as well as the findings that arose from the data analysis. This chapter begins with the analytical plan, followed by the univariate analysis, then the bivariate analysis, and concludes with the multivariate analysis.

The first step of the analytical plan called for descriptive statistics to be generated, as well as selected variables to be recoded as necessary. Step two involved the two independent variables (cultural capital and habitus) being made into scales based on three batteries of questions from the questionnaire. A reliability analysis was then conducted on each scale to determine which survey questions could be used to create the scales for cultural capital and habitus. The most reliable scales in terms of habitus and cultural capital are used in this study. The third step involves testing the first two research questions, "What is the relationship between participating in cultural activities (cultural capital) and academic achievement?", and "What is the relationship between the parenting activities of the child (habitus) and academic achievement?". A standard approach of using correlation tests for bivariate statistics and linear regression models for multivariate statistics is used in this study. The fourth and final step of the analytical plan focuses on the third research question: "Do low income students benefit more from cultural capital and habitus than middle class students?". The Two Model Test of Coefficients is used to determine if the effects of the independent variables are significantly different in the populations of low income and middle to upper class students.

DESCRIPTIVE STATISTICS

Table 2 shows the descriptive statistics of the dependent, independent, and control variables. The statistics of importance for the dependent variable are median and mode, which are 2 and 4 respectively. This indicates that most of the respondent's children made mostly A's in school, even though the absolute middle grade is a C. The independent variables statistics of importance are mean, median, and mode since they are scales. The mean, median and mode for cultural capital is 2.471, 3.5 and 2 respectively. This indicates that out of a total 7 ways to participate culturally, most respondents only engaged in about 2. For home habitus, out of the 7 total home habits that would increase grades, respondents mostly engaged in about 4. Parental habitus had a total of 12 habits that could increase grades, respondents mostly had about 7.

Table 2. Descriptive Statistics of Study Variables

(N=14075)

Demographics	Frequency	Valid Percentage	N	Mean	Mode	Median	S.D.
Grades			11913	3.343	4	2	.791
Mostly D's/F's	332	2.8					
Mostly C's	1393	11.7					
Mostly B's	4050	34.0					
Mostly A's	6138	51.5					
Income			14075	6.581	10	5	2.846
Gender			14075				
Male	7218	51.3					
Female	6857	48.7					
Race			14075				
White	7980	56.7					
Black	1386	9.8					
Hispanic	2956	21.0					
Other Race	1753	12.5					
Highest Edu			14075	3.54	3	2.5	1.154
Less than H.S.	880	6.0					
H.S.	1592	11.3					
Vocation	4177	29.7					
College	3972	28.2					
Post Grad	3484	24.8					
Mental Disab.			14075	1.98	2	1.5	.133
Yes	252	1.8					
No	13832	98.2					
Cultural Capital Scale			14075	2.47	2	2	1.1712
Habitus Home Scale			14075	4.026	4	3.5	1.822
Habitus Parent Scale			12795	6.391	7	6	2.929

In order to reduce the number of variables in the regression models, three scales were proposed:

- A scale composed of variables measuring aspects of cultural capital

- A scale composed of variables measuring habitus in the home

- A scale composed of variables measuring the habitus of parents

The determination of what variables should be included in a given scale was based upon two criteria. The variables needed to have face validity – the variables appear to be suited for the scale they are included in given the literature review. And more importantly, the variables needed to exhibit an acceptable level of inter-item reliability using the Cronbach's Alpha (α) scale cut-off of .70, (Sweet and Grace-Martin, 2012), this study used .60 for the Cronbach's Alpha cut-off, since neither of the scales were above .70. Table 3 presents the results of this analysis.

The reliability of the cultural capital scale is .556. Given the standards set for this study, this scale will not be used. This is empirical evidence that there is much more to cultural capital that the data used in this study just could not capture. Removing any of the items would not increase the Cronbach's Alpha (not shown), meaning that within this dataset this is the most reliable scale of cultural capital that was possible. This leaves the question of "what is the relationship between cultural capital and academic achievement?" unresolved. The two habitus scales reach an acceptable level of inter-item reliability. The habitus home scale has a score of .687, and the parental habitus scale has a score .629.

Table 3. Scale Reliability Analysis		
Cultural Capital Scale	Habitus Parent Scale	Habitus Home Scale
α = .556	α = .687	α = .629
Visited a Library	Attended a school or class event	Told them a story
Visited a Bookstore	Served as volunteer	Done activities like arts or crafts
Gone to a Play, Concert, or Live Show	Attended a general school meeting	Played board games or done puzzles
Gone to a Museum	Attended PTA/PTO meeting	Worked on a building project
Gone to a Zoo	Attended Parent Teacher Conference	Played sports or active games
Attended an Event Sponsored by a Religious or Ethnic Group	Participated in fundraiser	
Attended a Sporting Event	Served on School Committee	

Presented below are findings from the bivariate analysis. Table 4 includes a Pearson's correlation test.

BIVARIATE ANALYSIS

Table 4 shows the bivariate correlations tests. According to the data both scales are significantly correlated to grades at the .001 level. The Pearson's correlation coefficient falls between -1 and 1 with negative numbers indicating a negative association, positive numbers a positive association and 0 indicating no association. As shown, the cultural capital scale has a Pearson's correlation coefficient of .150**, home habitus scale .076**, and habitus parent scale .095**. This indicates that cultural capital has the strongest positive association with grades, parental habitus has the second strongest positive association, and home habitus has the weakest positive association.

Table 4. Pearson's r Coefficient. Cultural Capital, Habitus and Academic Achievement

	Pearson's r	Sig.	N
INDEPNDENT VARIABLES			
Cultural Capital	.150**	.000	11913
Habitus - Home	.076**	.000	11913
Habitus - Parent	,095**	.000	11344

*p<0.05; **p<0.01

Presented below are findings from the multivariate analysis. These include a multiple linear regression test in Table 5 and quality of coefficients test in Table 6.

MULTIVARIATE ANALYSIS

Table 5 addresses the following question: What is the relationship between the habitus (of the parent and at home) and academic achievement (grades). Two models are shown for each outcome variable. A base model is shown with the outcome variable only, followed by a model that includes control variables. For each model, grades are used as a predictor for academic achievement, while the independent variables are scales of habitus of the parent and habitus while at home, this falls in line with theory and past research.

There are small but noticeable differences between the effects of habitus at home and habitus of the parent. Home habitus seems to have the greater effect on grades compared to parental habitus without the influence of controls, with that effect becoming greater with the inclusion of control variables. Without controls, home habitus accounts for a .033 increase in grades, while parental habitus only accounts for a .029 increase. Including controls changes the increase of home habitus to .034 but makes parental habitus fall to .017. Even with this change, both habitus scales indicate an increase in grades, even if it is a small increase. Given these results, the answer to the question of "what is the relationship between habitus and academic achievement?" is that habitus has a significant positive relationship with academic achievement.

For both habitus' scales, there are some controls that influence grades even more than habitus itself. Household income (.040 and .036), educational status of the parents, race and gender all had more of an effect on grades than did habitus. This goes to show that socioeconomic status plays a role in the academic achievement of students, as does theory and past literature. Being a black student (which shows a .228 and .235 decrease in grades) and being a male (which shows a .244 and .239 decrease in grades) has a negative effect on academic achievement. Also, the mental health of the child plays a role in the academic achievements of said child, as Table 5

shows a .502 and .578 increase in the grades of those who do not have intellectual disabilities; this is the highest out of all of the control variables.

Table 5. Multiple Linear Regression Estimating Home Habitus and Parent Habitus Effect on Grades

N = 14075

(Standard Errors in Parentheses)

	Habitus Home Scale (n=14075)		Habitus Parent Scale (n=12795)	
	Model 1	Model 2	Model 1	Model 2
R^2	.006	.134	.009	.128
Constant	3.214 (.017)***	1.929 (.111)***	3.183 (.020)***	1.858 (.127)***
Habitus Home Scale	.033 (.004)***	.034 (.004)***		
Habitus Parent Scale			.029 (.003)***	.017 (.003)***
Socioeconomic Status				
Household Income		.040 (.003)***		.036 (.003)***
Less Than HS		-.009 (.035)		-.010 (.035)
Vocational School		.092 (.024)***		.080 (.024)**
College		.252 (.026)***		.229 (.026)***
Post Graduate Degree		.328 (.027)***		.229 (.026)***
Male		-.244 (.014)***		-.239 (.014)***
Black Student		-.228 (.024)***		-.235 (.024)***
Hispanic Student		-.082 (.018)***		-.082 (.019)***
Other Race Student		.092 (.021)***		.096 (.021)***
Mental Health				
Does Not Have Intellectual Disability		.502 (.004)***		.578 (.062)***

*p <.05, **p <.01, ***p <.001

The last question to answer in the analysis is: Do low income students benefit more from cultural capital and habitus than higher income students? Because of the difficulties with developing a succinct measure of cultural capital, the focus is placed on the two measures of habitus. One way of answering this question statistically is provided by Paternoster et al. (1998).

The test, called the equality of regression coefficients requires a few simple steps. First, the

sample is separated into two independent populations. For this thesis, the populations are

separated into low income households making $40,000 or less (n = 3965) and middle- and high-

income households making over $40,000 (n = 10110). We chose these cut-offs because the U.S.

government defines a low-income household as making less than $48,678 for families of 4 with

2 children (National Center for Children in Poverty, 2018). Second, identical regression models

are run on the separate populations. For this thesis, the same variables used in Table 5 are used

for the test, save the income variable. Third, the parameter estimates and standard error for the

independent variable of interest – in this case home habitus or parent habitus - are used as inputs

into the formula below,

$$Z = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}$$

where b_1 and b_2 are the parameter estimates for low income and high income

respectively, and SEb_1 and SEb_2 are the standard errors for these same populations. The null

hypothesis for this test is that $b_1 = b_2$. Z is the test statistic, with values of 2 providing enough

confidence to reject the null hypothesis and suggest that the effect of habitus has a significantly

different impact on the two populations.

Table 6 shows the results of the test. In both cases, the Z-score is exactly 2, meaning that

we can reject the null that the two estimates for low income and higher income are the same.

Because the estimates for the low-income population are higher for both scales (.05 and .03,

compared to .03 and .01) we can answer the question: Do low income students benefit more from

habitus than higher income students? The answer would be yes according to this test.

Table 6 Regression Coefficients and Standard Errors Used to Calculate Equality of Regression Coefficients.

	Habitus Home		Habitus Parent	
	Low Income	High Income	Low Income	High Income
b	.05	.03	.03	.01
SE	.01	.00	.01	.00
Formula	$Z = \dfrac{.05-.03}{\sqrt{(.01)^2+(.00)^2}} = 2$		$Z = \dfrac{.03-.01}{\sqrt{(.01)^2+(.00)^2}} = 2$	

This chapter presented and discussed the analytical plan, also the univariate, bivariate, and multivariate analyses for the study. The next chapter provides further discussion on the findings of this study, limitations of the study, and possibilities for future research.

CHAPTER V

DISCUSSION

This chapter provides further discussion on the results of this study, which was designed to test the examine the relationship between cultural capital, habitus, and educational achievement. This chapter begins with a discussion of the implications of the findings of the study, followed by the limitations of the study, and concludes with possibilities for future research.

This study relates to past research in a few ways. Firstly, since cultural capital could not be reliably captured by a scale in this study, the research on cultural capital could not be confirmed, refuted, or properly expanded upon in this study. It can be inferred that cultural capital would have more of an effect on academic achievement for low-income students compared to higher income students as stated by Jaeger and Karlson (2018), and Tramonte and Willms (2010) as the findings showed this to be true for habitus. However, the understanding of habitus having a stronger effect on academic achievement than cultural capital presented by Gaddis (2013) is partly supported by the findings. While Gaddis, (2013) described a relatively strong relationship to academic achievement, the findings from this study showed a much weaker relationship, albeit still significant. The findings expand upon Gaddis' (2013) claim by showing how two separate types of habitus influence the academic achievement of students. This study also supports DiMaggio's (1982) cultural mobility theory, by confirming that habitus is significantly associated with an increase in grades.

The connection between the findings and the real world is telling. Being that the current sociopolitical climate of education in the United States is one of major budget cuts, quality of

education being linked to property values, and overall educational inequalities when it comes to socioeconomic status, it is up to parents and educators to use any resources that are available. Being that the current U.S. administration seeks to focus on more choices in terms of high-quality schooling, STEM programs, opioid abuse prevention strategies and making the department of education "more efficient while limiting the Federal role in education", (United States Department of Education, 2019), schools and students in low-income areas are not left with many choices being that they might not ever be a part of said high-quality schooling or STEM programs. In reference to the results from the data analysis we see that habitus impacts students a bit more than their higher income counterparts. This can be leveraged by parents and educators to help those low-income students struggle a bit less when it comes to performing well academically. Being that the average grade range for students in this study is 6th- 7th grade, educators can get more involved during their classes by allowing for students to build their habitus in the classroom. Parents can get more involved in habitus building at home, and within the schools themselves during school activities. None of these things require help from outside sources like the government; individuals and families can use cultural capital and habitus, it just takes some effort on their part.

The findings imply that disadvantaged students would benefit more from having better home habitus. This means doing things like telling your children a story, doing arts and crafts activities, playing board games or puzzles with your children, working on building projects and even playing sports or active games with your children will have a positive effect on their grades.

This does not discount the importance of parental habitus, which does have a positive effect on the grades of students, just to a lesser degree. This means doing things like attending school events, school meetings, PTA meetings, parent teacher conferences, participating in

fundraisers, school committees, and volunteering will have a significant positive effect on the academic achievement of disadvantaged students. This is the answer to research question 2: "What is the relationship between the parenting activities of the child (habitus) and academic achievement?".

Research question 1: "What is the relationship between participating in cultural activities (cultural capital) and academic achievement?" is inconclusive. This is due to the cultural capital scale being unreliable, which leads to the limitations of this study.

Research question 3: "Do low income students benefit more from cultural capital and habitus than higher income students?" was answered using the equality of regression coefficients test provided Paternoster et al. (1998). The results showed that yes, low income students benefit slightly more from cultural capital than higher income students.

LIMITATIONS OF THE STUDY

A major limitation of the study is that the cultural capital scale is unreliable, and there was no way to make it a reliable scale. We tried to work around this, but we would have had to add unrelated items to the scale that would have taken away from the essence of what cultural capital is. With this being the case, cultural capital could not be included in the bivariate and multivariate analyses, which is a major limitation. The habitus scales also fell into the Cronbach's Alpha range of "questionable" which is not great, but they could at least be used in the study.

Another limitation of the study is that the dependent variable of grades is not ideal. In terms of measuring academic achievement, a numerical score would be more efficient. Also, there is a self-report bias associated with reporting grades in surveys. Another form of analysis

could be used in the future. A minor limitation is the use of secondary data in this study, due to time constraints.

FUTURE RESEARCH

These recommendations for future research are provided based on the findings and limitations of this study. In reference to the limitations, future research should employ the collection and use of primary data to ensure that measures related to the topic are used. This could make for a cultural capital scale that is reliable and usable in the bivariate and multivariate analyses. The collection of data could also employ the use of grade point average as a measure for academic achievement since it is numerical. The use of primary data would also allow for the demographics to align more with demographics at the national or state level. This would allow for a better understanding of educational inequality.

By focusing on the educational needs of disadvantaged students, we give them a fighting chance of making it out of poverty. Through education, these students can give themselves the chance of having a better future. This would lead to better life chances for future generations. Cultural capital and habitus are major parts of the educational needs of students, disadvantaged or not, so the more we study them, the more we will know how to utilize them.

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