

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

Introduction

The purpose of this study was to propose and test a model of the mediating effects of self-processes and activated social capital on the relationship between potential social capital and educational outcomes. This chapter presents a summary and discussion of the findings, as well as their implications for educators. The contributions of the study to the conceptualization, measurement, and methodology of social capital research in education are discussed, as well as the study's limitations. In conclusion, suggestions for future research are presented.

Summary of Research Findings

The major findings of this study are presented according to the successive groups of constructs in the model, in the order of potential social capital, adaptive self-processes, activated social capital, and educational engagement and aspirations.

Potential Social Capital

The final model in this study incorporated social network measures of size, density, and compositional quality as indicators of potential social capital, in addition to socioeconomic status. The strongest relationships among the variables were between socioeconomic status and maximum occupational status, and between network size and maximum occupational status. White students in the sample had higher socioeconomic status and percent non-kin in the network than minority students. In preliminary regression analyses, socioeconomic status contributed significantly to educational aspirations and grades. Network size contributed to the explanation of all three self-processes, as well as teacher support, school membership, and educational aspirations. Percent non-kin had a significant influence on school membership, and on all of the educational outcomes except educational aspirations. Maximum occupational status was significant only in explaining educational outcomes. The ethnicity-based regression models showed some differentiation by race, particularly for the effects of socioeconomic status and network size, which negatively affected teacher support and academic support for minority students.

Three of the four variables were measured by single indicators. In the final measurement model, socioeconomic status, the only multiple-indicator variable, showed relatively adequate composite reliability and convergent validity. The effects of the potential social capital variables in the full structural model were largely indirect. Network size had small to moderate effects on all self-processes, and percent non-kin had a moderate direct effect on help-seeking orientation. When students have larger and more diverse networks, they are likely to feel more comfortable in seeking help and to have greater trust in others. Surprisingly, potential social capital had only small to moderate indirect effects on activated social capital, challenging the notion that network characteristics indicate the types of resources truly available to students. Socioeconomic status had a strong direct effect on grades, corroborating the well-known connection between family background and educational outcomes. Maximum occupational status had a moderate effect on educational aspirations, supporting the notion that higher compositional quality of the network would increase students' aspirations. Students who have adults of higher occupational status in their networks are more likely to have higher aspirations themselves, illustrating a type of "role model" effect. The indirect effects on the potential social capital variables on educational outcomes were small to negligible.

Adaptive Self-Processes

Measures of self-concept, trust, and help-seeking orientation were proposed as endogenous variables in the final structural model. Ethnic affirmation was dropped from the model as preliminary analyses indicated it was acting as a proxy for ethnicity. The intercorrelations among the self-processes were all positive and significant, with a particularly strong correlation between self-concept and trust. Minority students reported higher levels of self-concept and trust than White students. Self-concept and help-seeking orientation contributed significantly to all educational outcomes in preliminary regression analyses, while trust contributed only to the academic engagement variables. Overall, the self-processes explained a sizable amount of variance in the engagement variables, indicating that adaptive self-processes are associated with greater cognitive and behavioral engagement in school. Separate regression models for White and minority students showed self-concept as a stronger predictor of aspirations and engagement for

White students. The self-processes explained less variance in the engagement variables for minority students.

All of the self-processes were measured by multiple indicators. Measurement models of each construct and the constructs taken together showed reasonably good fit. In the final measurement model, all three variables demonstrated adequate composite reliability and convergent validity. In the final structural model, self-concept had strong effects on trust and help-seeking orientation. Help-seeking had the strongest effects of the three variables on the activated social capital variables. Help-seeking orientation creates access to greater levels of support in school. Self-concept affects school membership, and trust affects academic support. Self-processes also had strong indirect effects on actualized social capital, especially for trust on teacher support. The effects of self-processes on educational outcomes were primarily indirect, but strong and positive. Overall, the results support the hypothesis that self-processes act as mediating variables in the model.

Activated Social Capital

The final model had three indicators of activated social capital: perceived teacher support, academic support from network members, and school membership. All correlations among the variables were significant. Unexpectedly, minority students reported higher levels of school membership than White students. Overall, the activated social capital factors contributed most strongly to the explanation of the engagement factors in preliminary regression analyses. Academic support and school membership contributed to the explanation of educational aspirations, while all three activated social capital variables contributed to the explanation of grades. Academic support was a support measure from network members, and may have reflected the family/community effect on aspirations. The results of the ethnicity-based regression analyses looked similar for the two groups.

The three constructs were each measured by multiple indicators. Singly and taken together, the measurement models for the constructs showed good fit. Each construct demonstrated acceptable composite reliability and convergent validity in the full measurement model. In the final structural model, all activated social capital factors were hypothesized to affect aspirations and academic engagement. None of the factors directly

affected grades, which is not surprising. Within the activated social capital factors, teacher support had a moderate effect on school membership. All three factors had strong effects on academic orientation, effort, and educational aspirations. Students who utilize the school's support systems are more likely to have deeper engagement in learning, as well as higher aspirations. Many of the indirect effects estimated were significant, and the largest was for teacher support on academic effort. The pattern of effects supports the hypothesis that activated social capital positively affects academic engagement and aspirations more than achievement.

Academic Engagement and Aspirations

Four educational outcomes were included in the final model, with expected grades as the final outcome. The variables were significantly correlated, especially the engagement factors (academic orientation and effort) and aspirations with grades. White and minority students reported no differences in educational outcomes except for grades, where White students indicated higher expected grades. Academic effort and aspirations made the most significant contributions to the explanation of grades in preliminary regression analyses, and the total variance explained by the engagement and aspirations factors was sizable and significant. In the ethnicity-based models, aspirations and effort remained the strongest contributors to grades, however aspirations was stronger for Whites than for minority students. Consequently, less variance in grades was explained for minority students.

Aspirations and grades were each measured by a single indicator, while academic orientation and academic effort were multiple indicator constructs. The measurement models for the constructs were adequate, and academic effort showed particularly good fit (e.g., CFI=1.00). In the measurement model for all outcomes taken together, one modification was made to delete a factorially complex item from the academic orientation scale. Model fit improved significantly and all fit indices were acceptable. In the full measurement model, estimates of composite reliability and convergent validity for academic orientation and academic effort were satisfactory. Five of six possible direct effects were specified in the final structural model among educational outcomes. Educational aspirations had moderate effects on academic orientation and academic effort, but strong effects on grades. Academic orientation had a strong effect on effort,

and only a moderate indirect effect on grades. The effect of academic effort on grades was strong as well. The indirect effects of aspirations on academic effort and grades were small. These results support the hypothesis that academic orientation (valuing of learning) has an indirect effect on grades through academic effort.

Comparing the Final Model for White and Minority Students

As a follow up analysis, the final structural model was estimated separately on White and minority students. While not part of the major purpose of the study, these analyses were completed due to the differences in group means on several of the model variables, as well as the differences in the preliminary regression models estimated. A comparison of the fit statistics revealed major differences in fit. The model was well-fitting for White students, but abysmal for minority students. This difference in fit clearly indicates both measurement and structural differences in the explanation of the data for each group. These results suggest that current theory explains the experiences of majority students much better than those of minority students. While the models could not be compared statistically due to the drastic differences in fit, model coefficients and total effects were examined to look for possible sources of poor fit. Further research on the nature of self-processes and activated social capital for minority students is necessary, and in absence of this research, it is difficult to hypothesize about how these variables mediate the effects of family background on educational outcomes.

Discussion and Implications

Process of the Study

This study, like all others, evolved through a unique process, and that process is somewhat obscured by the traditional organization of the dissertation. The general objective at the outset of this study was to determine whether schools can act as mechanisms of social capital for young people. This began with an exploration of the concept of social capital in current educational literature. The work of James Coleman (1988, 1990) constitutes the introduction to social capital for most educational researchers. On the whole, educational research literature credits Coleman with the development of the concept of social capital, while Pierre Bourdieu (e.g., 1986) is generally mentioned for his concept of cultural capital. Coleman defines social capital as

the resources inherent in the structure of relationships. This leads to two conceptual problems, which are evident in the extant research on social capital. First, the sources and benefits of social capital are confused; leading to conclusions that social capital is present when positive outcomes are observed. Second, possession and activation of social capital are difficult to disentangle. Thus, it is unclear whether potential access to social capital or the activation of social capital leads to desirable outcomes. This social capital framework can describe, but cannot explain, the effects of inequality on educational outcomes. Issues of power and domination are obscured in this “white-washed” conceptualization.

Rather than dismiss the concept of social capital as anachronistic and conservative, other sources were sought out. Pierre Bourdieu’s (1986; Bourdieu & Passeron, 1977) conceptualization of social capital is grounded in theories of social reproduction and symbolic power. He theorizes that social capital is as unequally distributed as financial capital. Research on social class and social capital is mainly informed by Bourdieu’s framework, and illustrates the differential experiences of working and middle class students and families, majority and minority students and families.

As ideas for research on social capital of adolescents further crystallized, the notion of potential and activated social capital became the focus. Consequently, a key feature of this study is the differentiation of potential and activated social capital. The interest in this notion for this study originated from the work of Lareau and Horvat (1999), who use Bourdieuan theories of social and cultural capital to highlight the process of social capital mobilization as “moments of inclusion and exclusion.” Through qualitative research with minority families, they illustrate that individual actions and interactions can mediate the effects of static social capital indicators such as family structure or resources to create windows of opportunity in interactions with school personnel. This idea resonated based on the deficits noted in Coleman’s model, and became a central feature of the conceptualization of social capital for this study.

The second (and equally central) feature of the conceptualization of social capital in this study was informed by the work of Stanton-Salazar (1997; 2001b). Both Stanton-Salazar and Lareau and Horvat (1999) emphasize the agency of the adolescent, in contrast to work based in Coleman’s conceptualization that ignores this reality. In his conceptual and empirical work on the social capital and social networks of Mexican-

American adolescents, he illustrates the importance of social networks as forms of social capital, and brings to life the notion that social capital is based in social networks. A focus on the social networks of adolescents as the basis for their potential and activated social capital became another essential piece of the study.

This led next to the work of Nan Lin (e.g., 1999a), who put forward the notion of a social network theory of social capital. While Lin's work is based primarily in the understanding of status attainment for adults, the possible applications to explanation of adolescents' educational experiences are clear. Borgatti, Jones, and Everett (1998) outline specific social network measures of social capital, including network size, density, heterogeneity, and compositional quality. In thinking about the distinction between potential and activated social capital, the idea arose that network characteristics would be measures of the potential social capital available to a person through the network.

A fuller model of relationships among the constructs of social capital began to take shape based in these major concepts. As the guiding purpose of the study was to look at the connections between social capital and educational outcomes, the focus turned to understand what other variables might mediate this process. This led back to the work of Bourdieu, and specifically to the concepts of field and habitus. Each person brings a different set of dispositions (habitus) to the field of interaction, characterized by the "rules of the game", which are neither explicit nor codified. Because the field is dynamic, valued forms of social and cultural capital are also dynamic and arbitrary.

Lareau (2001) brings these concepts into focus, using the example of family-school relationships to show middle class families are better able to comply with and accept the rules of the game in schools. In this situation, there is a match between habitus of the person and the field – middle class families have a congruence of style with the middle-class teaching body and a congruence of values with the dominant institution. For example, the linguistic characteristics of children raised in middle class families match the expected linguistic, grammatical, and syntactical feature of the school curriculum, reinforcing the language skills of middle class children and strengthening student-teacher relationships. Middle class families may feel at home on the field of the school, whereas working class and minority families are like fish out of water. The activation of social capital for young people in schools happens most easily when there is

a match between habitus and field. In the case of this study, the school was the primary field of interaction. Habitus was conceptualized as the personal dispositions that each student brings to the school. DuBois (2001) proposes that self-processes mediate the effects of family disadvantage on academic achievement. Self-concept, trust, ethnic identity, and help-seeking orientation were proposed as adaptive self-processes that could facilitate the activation of social capital in the school setting.

The description of the process guiding this study provides a type of conceptual map to explain and clarify the development of the model for the study. The aims of the study became increasingly ambitious, as a more realistic conceptual model of adolescents' experiences took shape. The study moved from a deductive to an inductive process, as the a priori model, grounded in an eclectic and synthetic theoretical base for the understanding of the interaction between person and environment, was shown to poorly explain the experiences of minority students. The data revealed relationships and non-relationships that were not anticipated, and led to more questions about the linkages of potential and activated social capital to educational outcomes, and the role of self-processes in this journey for minority students.

Findings in Context

Our proposed explanations of academic achievement must move beyond family background variables. While class and ethnicity tell us something about the background and experiences of young people, as sole indicators they obscure the individual differences and self-processes that play a role in educational development. Students come to the field of school with a habitus and with potential social capital. An understanding of how these factors interact, contribute to the activation of social capital, and consequently lead to educational outcomes offers us a better awareness of what currently goes on in schools and what can be done to help activate social capital for all students.

The effects of potential social capital in the study offer two main points for discussion. Theoretically, a connection between potential and activated social capital would be expected - greater access to social resources should lead to greater receipt of resources. In this study, activated social capital was affected only indirectly by potential social capital through self-processes. This finding corroborates the work of Lareau and Horvat (1999), indicating that individual factors play a role in the activation of social

capital, and that the connection between potential and activated social capital is not deterministic. Previous research also suggests that potential social capital indicators should have some direct effects on educational outcomes. The strong direct effect of SES on grades backs up the well-known connection between these variables. However, other potential social capital indicators had no direct effects on engagement or grades. As expected, maximum occupational status had an effect on educational aspirations. When only family background variables are used as indicators of potential social capital, the connections between social capital and educational outcomes are much stronger. The study results suggest that we cannot infer that everything will work out well for students simply because they look well supported. Even if students have large family and community networks, this may not translate into positive outcomes, especially in the case that the influence of the networks is not academically oriented. Thus, even though networks provide the structure for social capital formation, there is perhaps no one pathway for success in the case of adolescents.

Adaptive self-processes played an important role in the explanation of activated social capital and educational outcomes. The findings revealed strong, direct effects of self-processes on activated social capital. A help-seeking orientation leads to greater support by teachers. Stanton-Salazar (2001b) notes the importance of help-seeking orientation for minority students in particular. If students' view teachers as helpful, they are likely to receive support from teachers. It is certainly possible that these variables have a reciprocal relationship, as help-seeking orientation is somewhat based on past experiences of seeking help. The connections between self-processes and activated social capital, through both direct and indirect effects, reinforce the idea that a match between habitus (embodied self) and field leads to greater social capital activation.

All of the self-processes in the model are socially desirable behaviors and orientations, and they are rewarded in the school setting with greater support and acceptance. When students display the "right" dispositions, they are likely to experience fewer barriers to success in school. However, the definite location of self in the model for this study – following potential social capital and preceding activated social capital – could be rightly criticized. It is impossible to locate and measure the embodied self and its transactional potentiality. Consequently, it is also impossible to capture the true

interaction of habitus and field by quantitative means. The adaptive self-processes measured in this study thus approximate a sense of habitus, and provide one way to study the complex process connecting students and outcomes.

The effects of activated social capital on educational outcomes revealed an interesting relationship. Activated social capital affects intermediate educational outcomes, but does not directly affect grades. The fact that teacher support and school membership, activated social capital factors based in the school, have no direct effect on grades should not be seen as evidence that these factors do not matter in school outcomes. Grades and other achievement variables are difficult to predict, and many factors other than those in the model would have strong effects on achievement. The finding that activated social capital in the school contributes to higher aspirations and engagement, particularly academic orientation, is an important one. Previous research has primarily emphasized the connections between social capital and achievement and attainment variables. Aspirations and academic engagement are important outcomes in their own right, and may be greater indicators of a lifelong orientation toward learning than grades in school. The effects of academic support from the network on aspirations and orientation were not as strong, but suggest that an academic push from mentors and family members leads to higher aspirations and greater valuing of education.

The effects of aspirations and engagement on grades reveal that academic orientation acts as a mediating variable in the explanation of grades. The effects of academic orientation on grades were indirect, both through aspirations, and more strongly, academic effort. Academic orientation represents another match between habitus and field. It is not surprising that students who like school put in greater effort, and consequently, receive better grades. Previous research using regression methods has found academic engagement to be a relatively weak predictor of achievement (e.g., Smerdon, 1999). The modeling used in this study reveals the process through which the two components of engagement; orientation and effort; act to enhance outcomes. This finding is contrary to Finn's (1989) suggestion that effort leads to orientation. Students, especially working class and minority students, need to value school and have some sense of its application to their future lives to expend effort. The rewards will not be evident through hard work itself; that is, greater effort will not lead to a greater appreciation. The

possibility of rewards must be present before greater effort would be exerted – a sense of possibility leads to action. Academic orientation is strongly affected by teacher support and school membership, which indicates that schools have a role to play both in activation of social capital as well as encouraging a positive orientation towards school.

The ambitious nature of the study presented challenges in terms of model estimation and interpretation of the findings. The findings in this study are not free of the data, and the exploratory nature of the study means that the model generated needs to be cross-validated on other samples of high school students. While the relationships can be viewed as tentative rather than causal, the final model nevertheless reveals a process of social capital activation that moves beyond current conceptualizations in the literature, and offers new ways for educational researchers to study and understand the role of social capital in educational development.

Moving Beyond Single Conceptualizations of Model Variables

The results of the follow-up analyses comparing the final model fit to White and minority samples exposed a gap in our understanding of potential social capital, self-processes, activated social capital, and educational engagement for minority youth. The major constructs in the study were developed as measures for all high school students. The guiding theories for the study clearly serve to explain majority achievement, and there is little theoretical basis to hypothesize about the exact reason for the model differences. For example, the nomological network of factors posits that students with high self-concept are “programmed for success” (Phelan, Davidson, & Yu, 1998) in school. Self-concept is tightly tied to achievement in this majority context, and students with high self-concept are expected to want to excel in school and pursue higher education. The tight coupling of self-concept with achievement orientation and outcomes may reflect the cultural norms of the majority Western culture, underscoring the definition of self through accomplishment. These ideas need further exploration.

Constructs such as self-concept, trust, and school membership appear to have different meanings and functions for White and minority students. Cross-cultural research on self-processes in particular is necessary to understand the nature of self-processes for minority students. Theories of achievement motivation should pay attention to a range of sociocultural forces to more completely explore the complexity of students’ motivation to

learn (Bempechat & Boulay, 2001). Self-reliance is romanticized as a core American value, but the benefits of self-reliance are a myth – one can appear independent when the system works in one’s favor (Stanton-Salazar, 2001a).

Cultural compatibility theory was developed in an effort to explain the differential achievement of minority students. The theory posits that differing home and school cultures, echoing the idea of incompatibility of habitus and field, cause misunderstanding, conflict, and lost opportunities, whose effects are felt primarily by students and their families. Delpit (1995) suggests that the academic problems attributed to minority status are actually the result of miscommunication and an imbalance of power between schools and “other people’s children.” The theory is criticized for the assumption that cultural differences only create problems and act as liabilities. Moll and González (1997) present working class and minority culture as dynamic and contextual, emphasizing the “funds of knowledge” in students’ homes and communities. Thus, ethnic or class difference from the norm should not be viewed as a deficit in our conceptualizations of the process of educational development. This perception only leads to finding that minority and working class youth are lacking in the characteristics we associate with achievement.

The ethnographic work of Phelan, Davidson, and Yu (1998) richly illustrates the sociocultural, socioeconomic, psychosocial, and structural borders students encounter across the social worlds of family, school, and peers. Self is conceptualized at the center of these intersecting worlds, in a sense representing the habitus as the element that interacts with these worlds. This model offers a starting point for understanding how self-perceptions, thoughts, and feelings connect to educational development for students as complex individuals, not in comparison to one “true” representation of the experience for all students.

The work that suggests that self-processes and social capital are indeed different for individuals based on ethnicity and class is based primarily in qualitative and ethnographic work, and has not been rigorously investigated in the quantitative literature. A single reality of social capital and its effects are dominant in extant educational literature, while alternative explanations are much harder to access. There is an urgent need for expanded conceptualizations of social capital to reach the mainstream

educational literature, both to advance theoretical and empirical work in the area, and to provide practitioners access to these ideas.

Implications for Practitioners

The findings of this study suggest that schools can indeed act as mechanisms of social capital activation for students. However, the findings do not reveal the processes by which schools can do this. Teacher support and school membership appear to be important factors in increasing academic engagement and aspirations. The dispositions of students play a clear role in activating social capital in the school setting. The “rules of the game” – which middle class families know by osmosis - must be made more explicit, and their role in denying the activation of social capital for working class and minority youth must be part of our broader educational dialogue.

Based in his work on the social networks of Mexican-American adolescents, Stanton-Salazar (2001b) names seven forms of institutionally-based funds of knowledge that are essential for students to activate social capital: (a) institutionally-sanctioned discourses; (b) academic task-specific knowledge; (c) knowledge of how bureaucracies operate; (d) networking skills; (e) technical funds of knowledge (computer, studying, test-taking, time management; (f) knowledge of labor and educational markets; and (g) problem-solving knowledge. Some students are unable to access all of these forms of knowledge through their own social networks. Schools can act in ways to make these funds of knowledge more accessible to all students and families. Stanton-Salazar also identifies forms of institutional support that facilitate the activation process, including implicit and explicit socialization into institutional discourses, bridging connections to gatekeepers and other social networks, advocacy, modeling effective coping with stratification forces (help-seeking, problem solving), emotional and moral support, and personalized advice and guidance.

It may sound like a tall order for schools to provide these things, considering all they are expected to do. However, existing structures in schools could be redesigned with the purpose of provision of institutional support. There is a particularly important role for school counselors, who are perhaps in the best position to facilitate greater access to institutionally-based knowledge, and act as bridges and advocates for students as they navigate through the educational landscape. The suggestion that the rules of the game be

made explicit is not meant to imply that knowing the rules of the game will ensure successful game playing. Indeed, it might be said that many students know the rules, but that the benefits of participation are differentially realized. Further, those students who experience a mismatch of habitus and field may consciously or subconsciously reject the rules. Dispositions cannot be changed at will – by the self or by others. However, the provision of information and support is under the control of school personnel, and represents a significant influence on social capital activation in the school setting.

Contributions of the Study

The contributions of this study to the existing research base on the role of social capital for adolescents fall in two major areas: conceptual and methodological.

Conceptual Contributions

This study is unique in its complex and nuanced conceptualization of social capital and its relationship to educational outcomes. First, the study brings together bodies of literature in educational sociology (Coleman, Bourdieu) and network sociology (Lin) to propose a network view of social capital for adolescents. Further, this conceptualization acknowledges the agency of adolescents, unlike most research on social capital in education that focuses on parent and family variables only. A second conceptual strength of this study is the differentiation of potential and activated social capital. While this distinction has been illustrated through qualitative research (e.g., Lareau & Horvat, 1999), quantitative researchers have not incorporated this notion into the explanation of educational outcomes. The discrimination of access to social resources from the ability or opportunity to actualize those resources facilitates a more fine-grained analysis of the processes and effects of social capital for adolescents. The final conceptual contribution is that of the inclusion of academic engagement outcomes as “mechanism” outcomes in the model of educational achievement. Previously, studies have not linked social capital and academic engagement, and the findings of this study certainly suggest social capital plays a role in promoting cognitive and behavioral engagement with school.

Methodological Contributions

The major methodological contribution of this study is the use of structural equation modeling (SEM). The use of this methodology enabled the specification and estimation of a complex model of interconnections between potential social capital, self-processes, activated social capital, and educational outcomes. The mediating effects of self-processes and activated social capital could not have been assessed without the use of this methodology. Previous studies have used regression to study the effects of various potential social capital indicators, and have revealed little about the process between potential social capital and positive outcomes. In addition, the use of SEM made it possible to estimate the construct validity of the constructs of the model, especially academic engagement. This method also facilitated the comparison of these complex interconnections for White students and minority students. SEM provides a method to understand the antecedents and effects of social capital, and can contribute to more sophisticated theoretical explanations of social capital in the educational context.

Contributions to measurement. A major goal of the study was to improve upon the measurement of social capital in previous studies. Most of the measures (e.g., number of parents, number of siblings or household size, church attendance) are crude and arbitrary, and appear to be chosen based on ease of access in national data sets, following the example set by Coleman in his study of social capital using High School and Beyond data. These conventional measures of supportive ties are poor and unreliable indicators of social capital, and they give little information about relationship dynamics or the quality of the resources accessed (Stanton-Salazar, 2001b). The instrument in this study was designed to measure potential and activated social capital based in the adolescent's social network of important adults. In this measure, adolescents indicated the important adults in their lives, and the emotional, interpersonal, and academic support provided by each person. This measurement is an improvement on generic measures of support, and allows the connections between potential and activated social capital to be investigated in much more meaningful ways.

A second contribution of the study is the measurement of academic engagement. Confirmatory factor analyses were used to compare competing theories of single- and two-factor models of academic engagement. The finding that academic engagement is

best explained as a two-factor (correlated) model of orientation and effort was an important one in the development of the final structural model for the study. The realization of this factor structure allowed for the eventual finding that academic orientation affects grades indirectly through academic effort. This measurement work suggests that future studies of engagement should incorporate both cognitive and behavioral measures of engagement to fully account for the influence of this construct in models of educational achievement.

Limitations of the Study

While the study provides several contributions to existing research on social capital in education, the application of the findings is necessarily limited due to the nature of the data, the sample, and the theoretical base for the model. The cross-sectional nature of the data creates a serious limitation in our understanding of the activation of social capital as a process. The factors in the model were measured at the same point in time, and while they may coexist and covary, the relationships among them are tentative rather than confirmatory. Longitudinal research is necessary to infer a more causal model of this process. The sample of students in the study represents one region of one state in the nation. The counties sampled represent stable, working-class communities, and the model may be generalizable only to students living in these types of communities. The sample is somewhat representative in terms of ethnicity, but the sample size of minority students was inadequate to use a large-sample method like SEM on this sample alone. It was not possible to cross-validate the structural model using a calibration sample and a validation sample from the full sample because the sample halves were too small in relation to the number of parameters estimated. This model should be cross-validated using other samples of high school students. The need for cross-validation is further illustrated by the fact that the model fit the minority data so poorly. Furthermore, the difference in fit between the measurement and structural models is a concern. Normally, we would expect model fit to improve with the addition of structural paths, and this was not the case in this study. This result may have occurred due to the complexity of the model, and should be further investigated.

The theoretical base for the study left several questions unanswered when the model did not explain the experiences of minority students. Because the study did not assume any difference in the measurement models for White and minority students, separate measurement models were not specified. While the comparison of White and minority students was somewhat beyond the scope of this study, the finding of poor fit for the minority model certainly indicates that the final structural model cannot be generalized to the experiences of all high school students. It merely offers a starting point for future research into the mediating effects of self-processes and social capital in the process that links students and educational outcomes.

Directions for Future Research

In many ways, this study raises more questions than it answers. As much as the study sought to make a serious contribution to the existing research on social capital in education, the results revealed that the assumption about a single explanatory model of self-processes, social capital, and outcomes was an uninformed one. In this way, perhaps the limitation can be seen as a contribution - it points to several directions for future research that would have remained obscured without an investigation of this type. Does the nature of self-concept differ for majority and minority youth? Does school membership mean different things to the two groups? Who defines and who accesses institutionally-based funds of knowledge (e.g., academic discourses)? How are forms of institutional support (from teachers, counselors, other school agents) enacted in schools? To understand the process of social capital activation, longitudinal research is necessary.

Qualitative research has contributed much of what we know about the inequality of social capital, and there is a need for further qualitative and mixed methods research. These methods offer the most promise for furthering understanding of differential effects and mechanisms of social capital based on gender, class, and ethnicity. Theory-building work, especially to understand the experiences of minority students, is essential to move the concept of social capital forward as a valuable construct in the study of educational inequality.

The transition to high school has often been associated with disengagement from the school microsystem, decline in extracurricular involvement, decline in social support

from school personnel, and an increase in academic demands and hassles. At the time of transition, students are leaving the long-standing social networks in their middle and elementary schools, and entering new social networks. Even if peers remain largely the same, which is the case in rural areas, the school culture, teachers, counselors, and administrators change. Research during this transition would present an opportunity to understand the formation of social networks of adolescents over time, and how those networks influence engagement and activation of social capital in the school. Using mixed methods, it would be possible to study the experiences of multiple students during the high school years, to develop a richer understanding of social capital as a process rather than an outcome.

Conclusion

The concept of social capital has become a prominent explanatory variable in educational research, capturing the attention of educational researchers and policy makers aiming to improve America's schools. This aim of this study was to pull apart the simple explanation that social capital leads to desirable outcomes, and to disentangle the influences of access to social capital from the ability to use social capital in school settings. These results of the study provide initial and encouraging evidence that the broader social networks of adolescents, including non-kin members and teachers, have an important role to play in supporting the academic achievement and educational development of youth. Further, what goes on in social networks - the processes of social capital activation - tells us more about the educational engagement of young people than the nature of social networks themselves. The study also raises question about the applicability of the predominant conceptualization of social capital to the experiences of working class and minority high school students and their families, and creates an even more urgent need for further research to the processes underlying the inequality of social capital. The agenda for future research should include a focus on developing research designs that allow for the analysis of the dynamic influences of social capital on the educational outcomes of youth.