

CULTURAL CAPITAL AND TEACHER/STUDENT
INTERACTION

By

EMET WAYNE CALLAWAY

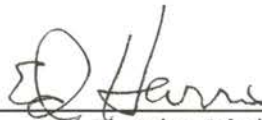
Bachelor of Science
Oklahoma Panhandle State University
Goodwell, Oklahoma
1975

Master of Arts
Western State College of Colorado
Gunnison, Colorado
1980

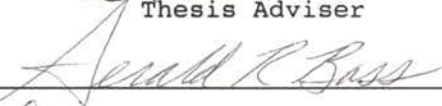
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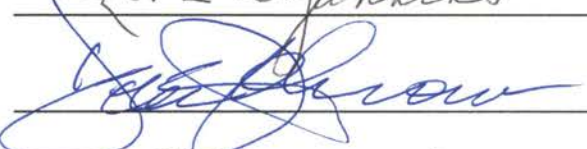
Thesis Approved:




Thesis Adviser









Dean of the Graduate College

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CHAPTER I

INTRODUCTION

The fact that some students are treated differently in school is evident to most participants in and observers of the American public education system. In a study of urban schools, Rist (1973) reported that inequality is something that will die hard in America. He found commonly shared assumptions about how it is in school. These assumptions resulted in unequal treatment based on class, race, home, and/or control. Thus two nets were said to result from the way in which schools respond to these issues: one to catch winners and one to catch losers. Schools continue to maintain these nets in the face of calls for reform. As Rist stated:

What we have found is an interlocking pattern of institutional arrangements descending from the macrolevel of the city-wide school system to the social and cultural milieu of a single school to the various stratification techniques employed by individual teachers in their classrooms (p. 241).

These arrangements seem to perpetuate differential treatment and are the major focus of this study.

This study was done to examine the problem of differential treatment of students in a particular school by beginning at the lowest level of its social and cultural pyramid, the individual students in individual classrooms. In an individual classroom setting, all students and all teachers are not created equal.

The basis for this study was to examine the idea that some students may have something that can actually buy differential treatment from teachers. What is it that they might have and what kind of differential treatment do they buy with it? The study examined the concept of cultural capital and the ability to buy the most valuable commodity in the school, teacher attention.

Cultural capital is a term that has become much used in the educational literature since the 1970's. It has much to do with social status and much to do with cultural grouping. However, while the term is becoming more familiar in the field of education and sociology, its definition is becoming more and more complex and ambiguous.

One of the earliest pioneers in the study of social reproduction and cultural capital, Pierre Bourdieu (1977) defined cultural capital as "instruments for the appropriation of symbolic wealth socially designed as worthy of being sought and possessed" (p. 190). This definition portrays cultural capital as tools for gaining social standing. Lamont and Lareau (1988) defined cultural capital as "high status cultural signals used in cultural and social selection" (p. 153). Still another study by Katsillis and Rubinson (1990) defined it as "high status culture, its behaviors, habits, and attitudes" (p. 270).

Others have used less global definitions and have used cultural capital to explain phenomena ranging from political attitudes of socioeconomic classes to social stratification to educational

attainment to almost anything relating to social inequality and differential treatment (Lamont and Lareau, 1988).

The definition of cultural capital utilized for this study is the quantity of cultural assets that a student possesses that are recognizable to his or her teacher. This definition depends on the identification of cultural capital attributes for students at OK High School and are a part of the findings of this study. Its use in this study relates to a combination of certain cultural traits that students possess that may allow them to gain full benefit of what schools have to offer. Some students in this school are known by everyone, are in everything, are pushed to reach their potential, are allowed special privilege, are listened to in class, and are never, never ignored. Other students are forced to accept whatever scraps that might be tossed their way, but have no way to gain access to the valuables kept in the school vault of educational and social truths. Cultural capital may be the determining factor in this stark difference between what a student may be able to gain from schooling.

Teacher attention, in the form of teacher/student interaction, has been shown to be a determining factor in student achievement (Farkas, Grobe, Sheenan, and Shual, 1990). In fact, the research relating to teacher/student interaction seems to take for granted that teacher/student relationships and interactions are the major variables in school success.

This study examined the relationship between the amount of cultural capital students possessed and the quantity and quality of

interaction that those students received from their teachers. It was done to help identify some of the reasons behind differential treatment of students from a perspective of the lowest level of the educational hierarchy, the classroom.

Statement of Problem

While much research has been focused on student success in schools based on ethnic background and socioeconomic standing (Brint and Karabel, 1989; DiMaggio, 1982; Farkas, et. al., 1990; Lamont and Lareau, 1988; Rubovits and Maehr, 1973), and much has been focused on the importance of teacher/student interaction (Alexander and Entwisle, 1987; Berger, et. al., 1972; Brophy and Good, 1974; Dornbush and Scott, 1975), little has been done to consider how student cultural capital and teacher/student interaction might be related. Because teacher/student interaction is of great importance to the learning process, there is a need to determine why some students receive more attention than others (Lamont and Lareau, 1988).

Statement of Purpose

The purpose of this study was to determine how much the quantity and quality of teacher/student interaction was affected by the amount of cultural capital individual students possessed. More specifically, the purpose was to develop a method for measuring the amount of cultural capital each student possessed and to determine the extent to which students with higher cultural capital ratings

received more attention from their teachers than did students with lower cultural capital ratings.

Research Questions

The following research questions used to guide the study were:

1. What are the significant factors which determine the amount of cultural capital a student possesses?
2. What cultural capital factors do teachers recognize and value in their students?
3. How much teacher/student interaction as measured by the Flanders' Interaction Analysis takes place between the teachers and students with varying amounts of cultural capital?
4. What is the quality of teacher/student interaction based on Bloom's taxonomy of cognitive domain, for students with varying amounts of cultural capital?
5. What are the differences, if any, between the observed teacher/student interaction and the teachers' perceptions of that teacher/student interaction?
6. How does the teacher/student interaction vary according to cultural capital ratings?

Methodology

The methodology employed for the study was that of a qualitative design. The complexity of determining how cultural capital and teacher/student interaction might be related called for a very broad, holistic type of inquiry. The use of participant

observation, long interview methodologies, and documentary sources were all employed. These three qualitative methods were augmented by using some quantitative aspects in gathering data concerning the quantity of teacher/student interaction and the cultural capital ratings. A more thorough discussion of the methodology used for the study is included in Chapter III.

Assumptions

The following assumptions were made in this study.

1. Increased teacher/student interaction results in higher student achievement and school success.
2. The measurement technique used to rate a student's cultural capital actually yields a true measure of cultural capital.
3. The teachers in this study responded honestly and accurately to the interview questions posed by the researcher.
4. The researcher was able to accurately observe and record the teacher/student interaction within the classroom.
5. Bloom's taxonomy of cognitive domain can accurately be used to measure the quality of teacher/student interaction.
6. The Flanders Interaction Analysis can be used to accurately measure teacher/student interaction in the classroom.

Significance of the Study

This study may be significant in that it adds to the current knowledge concerning cultural capital and teacher/student interaction and it examines the two for any relationships that might

exist between them. Prior research had not sought such connections. It may have further significance by developing a method for determining the cultural capital that students at this particular school possess. Other researchers may be able to modify this method for use in other settings. In addition, the findings of this study may have a degree of transferability depending on the degree of fit between this school and some other schools.

Theoretical Frame for the Study

The theoretical frame of this study builds upon the previous work of Flanders (1970) and Bloom (1956). Flanders' research on teacher behaviors and the analysis of those behaviors has emphasized the importance of verbal communication patterns to pupil learning. In addition, Flanders has developed a method for measuring those patterns in the classroom. This study utilized a modified version of that measurement instrument and sought to add to the knowledge base concerning pupil learning and communication patterns.

Bloom's research has demonstrated that educational objects may be classified into three domains: cognitive, affective, and psychomotor. These domains were arranged into taxonomies by Bloom to produce a hierarchy of learning objectives. This study sought to build upon the cognitive domain by examining teacher/student interaction in relation to the cognitive level of the taxonomy.

A degree of grounded theory, if that is taken to mean new theory, may have been employed in that cultural capital and teacher/student interaction may not have been examined for relationships in exactly the manner used here.

Limitations

The following were limitations for the study:

1. Since this was a case study of a particular high school, generalizations to other schools could not be made. Transferability will depend on the degree of "fit" between the school in this study and other schools.
2. The results were limited by the researcher's capabilities and resources.
3. The quality of the data collected was limited by the honesty and accuracy of the respondents to the interview questions.
4. The use of the term "cultural capital" is limited to the specific definition stated in the study.

Definition of Terms

The following terms are defined as they were used in this study:

1. Confirmability is the measure of neutrality or objectivity of the study.
2. Credibility is the qualitative equivalent of interval validity in quantitative research. It is the truth value or degree of correctness of the findings.

3. Cultural capital is the quantity of cultural assets that a student possesses that are recognizable to his/her teachers.

4. Dependability is the qualitative equivalent of reliability in quantitative research. It is the consistency of the findings.

5. Teacher/student interaction is the communication between the teacher and the student.

6. Transferability is the qualitative equivalent of the quantitative term generalizability, or external validity. It is the degree to which the findings of the study may be applied to other settings. That degree of application depends upon the fit between the two settings.

7. Qualitative research is a type of ethnography that is concerned with describing a holistic view of the phenomena under study.

8. Triangulation is a method of gathering data from three sources in order to gain a higher degree of credibility, dependability, and confirmability.

Summary

This introductory chapter was used to describe the basis for this study. That basis was that students are sometimes treated differently in the classroom of our schools. The cause of this differential treatment may be related to the amount of cultural capital a student possesses. The extent to which cultural capital affects teacher/student interaction was the primary interest of this study.

A discussion of the literature's definitions of cultural capital was presented along with the statement of the problem and the purpose. Other sections included: research questions, methodology, assumptions, significance of the study, theoretical frame of the study, limitations of the study, and a definition of terms used in the study. Chapter II is used to present a review of the literature related to status attainment in schools, the use of cultural capital in schools, teacher/student relations and communication, reproduction of social classes in education, Bloom's Taxonomy of Educational Objectives, and the need for study on cultural capital.

CHAPTER II

REVIEW OF LITERATURE

In reviewing the literature on cultural capital and teacher/student interaction, one finds that there has been a great deal of study in these areas. Cultural capital is directly related to social status, which has been the object of countless investigations in both the educational realm and the sociological arena, and is indirectly related to cultures, of which the amount of written information is staggering. Teacher/student interaction has also been scrutinized as an integral part of the educational process and a key factor in school success. This barrage of information concerning the topic of this study serves to emphasize its importance in the broader context of public schools.

As mentioned in Chapter I of this study, the definition of cultural capital has been much addressed in the literature. One of the earliest investigators of this phenomenon, the French sociologist Pierre Bourdieu (1977), proposed that cultural capital was made up of items used by an individual to gain social standing. Other researchers in the field have looked on cultural capital as high status culture and the way it is used (Lamont and Lareau, 1988; Katsillis and Rubinson, 1990). Although not defined formally, cultural capital has been shown to be a factor in the causes for attitudes of social classes, educational attainment, social

stratification, class reproduction, and many forms of social inequality.

The review of literature will address the related information on status attainment in schools, the use of cultural capital in schools, teacher/student relations and communication, reproduction of social classes in education, Bloom's Taxonomy of Educational Objectives, and the need for study on cultural capital.

Status Attainment in Schools

Status attainment may be influenced by many factors thought to be only loosely associated with the background of the individual. The occupation of one's father or a parent's educational background can be all important in being accepted into the "right" social group. Elite status groups are bound together by personal ties and shared ideas. Characteristics of individuals within a particular status group serve to aid efforts at reaping social benefits (Weber, 1968).

DiMaggio (1982) indicates that it takes more than measured ability to do well in school. At best, only about fifteen to thirty percent of variation in students' high school grades can be attributed to intelligence. Class, cultural styles, and status attainment are larger factors in school success than is measured intelligence.

In a later study, DiMaggio (1985) develops a measure of status-culture to show significant effects of status on educational

attainment and marital selection. This study again points out the importance of status in relation to schools and school success.

Status attainment may have much to do with the gatekeepers of high status positions. When discussing status attainment in schools, teachers serve as gatekeepers for excluding and recruiting students in the status world of education. This is done through a reward structure used by teachers to allocate grades (Farkas, Grobe, Sheenan, and Shuan, 1990). Lamont and Lareau (1988) present the argument that the cultural resources rewarded by schools go far beyond the consumption of high culture activities such as highbrow music and arts activities. Farkas (1990) states:

Cultural resources are classified according to whether they represent cognitive or noncognitive performance. By estimating the net contribution of each of these to course grades, we join the cultural resource literature to an older research tradition within the sociology of education. This tradition has long argued that school reward outcomes are based upon teacher judgments of students' noncognitive traits as well as of their cognitive performance. Relevant noncognitive traits include behaviors that are clearly related to cognitive performance, such as homework; behaviors which may be marginally related to cognitive performance, such as disruptiveness; and purely ascriptive characteristics such as gender, ethnicity and social class background (p. 127).

The Use of Cultural Capital in Schools

DiMaggio and Mohr (1985) interpreted cultural capital as a combination of demographic measures of family background and cultural measures of family background. These two measures are used together with ability and communicative competence to produce social resources upon which the individual may draw. The authors found

that this network of social resources had an effect on educational attainment, college attendance, college completion, and graduate education. They further found that there was a significant positive relationship for both men and women. The standardized coefficient of cultural capital was greater than any of the other variables used in the study except measured ability.

An absence of cultural capital can have a very negative impact on students. Sumner and Warburton (1972) found that students develop an "allergy" to school that influences their achievement. School allergies manifest themselves in many ways. Low motivation and lack of interest, chronic absenteeism, discipline problems, and dropping out are all symptoms of this allergy. According to the authors, the source of school allergies may be a combination of the pupil's personality, ability, and home background. These factors are part of a measure of cultural capital.

Cultural capital can also be an important factor in the response of parents to the demands of schools (Lareau, 1987). In this study, the author argues that class-related cultural factors influence the response and compliance of parents to teachers' requests for parental involvement. Lareau found that although working-class and middle-class parents share a desire for their children's educational success, the working-class parents depend to a greater extent on the teacher to educate their children while those in the middle-class, on the other hand, take a more active role in the education of their children and are more likely to respond to requests for parental involvement in school activities

and in helping with homework assignments. This appears to give educational advantages to the children of middle-class families over the children of working-class families.

Cultural capital is important in the understanding of the way social origin can provide advantages in social selection. The advantages are found in the way cultural capital is used as an investment practice. It stands to reason that a more active and dynamic model of social reality will yield greater rewards to those who draw from these resources (Lamont and Lareau, 1988).

Teacher/Student Relations and Communication

School achievement has been shown to be directly related to teacher/student relations and communication. Student work habits and basic skills are the principal determinants of coursework mastery. Teacher perceptions of these traits are most powerful in determining teacher judgments concerning course grades. Noncognitive characteristics such as the two mentioned above have been shown to be at least as important as the cognitive characteristics of an individual. That is to say, while coursework mastery is a significant factor in determining school achievement, teachers determine grades using much more than coursework mastery alone. Teacher/student relations play an important role in determining how the teacher perceives the student's efforts and skills (Farkas et al., 1990).

Alexander and Entwisle (1987) presented an interesting view of teacher/student relations that was contrary to much of the earlier

literature. Earlier literature focused on the idea that schools served to reproduce social classes and cultures. This reproduction perpetuated socioeconomic inequalities across generations and resulted in educational stratification. Alexander and Entwisle proposed that a much more important variable in school success is the social status of the teacher. Their findings provided evidence that high-status teachers, both black and white, experienced special difficulties when relating to minority students. These high-status teachers perceived that such youngsters were lacking in the qualities necessary to make a "good" student. In addition, these teachers had low expectations for these students and evaluated the school climate much lower when working with the minority children.

Rubovits and Maehr (1973) observed teacher interaction with black and white students. Discovery of some aspects of white racism were found. Black students were found to receive less attention and were ignored more than their white counterparts. Even when the black student was gifted, the teacher was more critical and gave less attention to the black student than to the white. This suggests that the dynamics of teacher/student relations is all important in the later success or failure for minority students.

Teacher/student relations are more than a personal problem. In fact, quoting Alexander and Entwisle,

Our results emphasize the social-psychological dynamics that underlie classroom process; pupil performance is driven down where teachers are distant and disaffected. The situation of high-status teachers working with disadvantaged youngsters is but a particular instance of this general proposition. But the conditions that give rise to such sentiment are themselves socially

structured, and this transforms what otherwise would be simply a personal problem into a social one (p. 681).

The publication of Rosenthal and Jacobson's (1968) Pygmalion in the Classroom initiated much controversy and debate concerning the hypothesis that teacher expectations can serve as self-fulfilling prophecies. Brophy and Good (1974) reviewed the literature for their book, Teacher-Student Relationships: Causes and Consequences, and concluded that the research clearly establishes that self-fulfilling prophecy. They did, however, qualify the hypothesis by stating that the hypothesis is true for some teachers in some situations but not for all teachers.

In another study, the relationship between teacher expectancies and teacher/student relations was investigated. Dusek and Joseph (1983) studied preconceived ideas about particular students based on factors such as physical attractiveness, student gender, cumulative folder information, social class and race, student conduct, sex role behaviors, previously taught siblings, name stereotypes, and one-parent versus two-parent homes. Cumulative folder information and student conduct were found to yield objective, academically relevant information that could aid a teacher in better understanding an individual student's needs. Social class and race reflected stereotypic expectancies for social behaviors that bordered on prejudice, at least in the absence of more relevant information for the teacher. Physical attractiveness was found to influence teacher expectancy only when given a picture of an unknown student with no other information available to the teacher. Student gender and the number of parents in the home were found not

to be factors in teacher expectancies. Previously taught siblings, sex role behavior, and name stereotypes were very weakly associated with teacher expectancy.

Teacher/student relations can be affected by the way teachers perceive their role in controlling students. Alexander (1991) conducted a study to examine the proposition that there is a relationship between teacher-pupil control ideology and teacher effectiveness. In this study, Alexander found that "Teachers with a humanistic pupil control ideology seem to reflect more flexibility, student concern, innovativeness, subject expertise, and affirming-type characteristics in their teaching habits and responsibility to student learning" (p. 89). The relationship developed between the teacher and the student is dependent, to a large degree, upon the teacher's attitude toward control.

Student effort can be a big factor in teacher/student relations. Teachers relate more with students who try hard in school and who put forth a legitimate effort to learn what the teacher is presenting to the student. The opposite of that is that teachers may react negatively to students who do not put forth any effort in school. Dornbush and Natriello (1984) state that "Students in school have a job to do, the central task of their youth. When they exert effort in school, we are not surprised. When they loaf, cut classes, or drop out, we are disappointed, disgusted, or outraged by their lack of effort" (p. 1). Conversely, teachers' evaluations of students can be the single most important motivator for student effort and student control (Dornbush and

Scott, 1975). Taken together, the effect of the teacher's evaluation on the student and the effect of the student's effort at meeting the teacher's demands, a relationship is developed that influences student outcomes and success.

A part of the theoretical frame for this study is based on Flanders' (1970) book, Analyzing Teaching Behavior. In this book, Flanders examines teaching behaviors in relation to the communication that occurs between the teacher and the students. This communication, or classroom interaction, can be all-important to the learning process. Flanders developed a method for analyzing the events that occur in the classroom. The purpose of this analysis was to help teachers develop and control their teaching behaviors and to explain through research how the variations in the chain of classroom events occur. This idea can be used to help determine interaction in the classroom and how it might relate to the cultural capital of the student. The technique used to analyze teacher/student interaction consisted of an observation method and instrument known as Flanders Interaction Analysis (Flanders, 1970).

Reproduction of Social Classes in Education

One of the most prolific writers on the topic of reproduction of social classes is Bourdieu (1986). His theories of social reproduction are centered around the concepts of power, authority, class dominance, and cultural capital (Bourdieu, 1986, 1977; Bourdieu and Passeron, 1977). These factors combine to create a

system in which the behaviors taught and transferred to students are based on the dominant culture and enforced by use of authority granted by the ruling class. This creates a cycle of reproduction that perpetuates class distinction (Bourdieu and Passeron, 1977).

According to Katsillis and Rubinson (1990), the reproduction of social hierarchy has been affected by the educational process. The way in which education influences this reproduction depends upon three variables: (1) the definition of class, (2) the extent to which curricular tracking is used, and (3) the gender of the students. Defining class by ownership and authority relations in the workplace yields different results than when class is defined by prestige or status. The stratification of students into curricular tracks can increase the influence of education on reproduction. Gender has also been shown to be a factor in the reproduction of social classes with females in some studies being less susceptible to the reproduction of classes.

Additionally, Katsillis and Rubinson (1990) state:

Educational systems not only promote social reproduction and achievement, but social reproduction through achievement, to the extent that the latter is determined by the social background of the student. That this educational selection process also provides for some mobility is understood. But what is often not recognized is the extent to which the achievement process itself has become the mechanism of reproduction (p. 278).

Reproduction of social classes can be found in what is considered knowledge. What counts as knowledge differs along dimensions of structure and content. This structure and content depends, to a great extent, upon the social class of those targeted

for learning. Anyon (1981) examined five elementary schools in contrasting social class settings in New Jersey. She found that differences do exist in the curriculum and curriculum-in-use at these schools. The differences can be attributed to the dominant social class at each school. For example, the data suggested that knowledge in the highest class school is academically oriented and very rigorous. There was a very concerted attempt to teach more and to teach more difficult concepts than at the lower class schools. Questioning and higher thought levels were included as part of the regular curriculum. In contrast, teachers in the lowest class school failed to teach the children of the working class their own history. The students were not taught to value their own heritage or interests. Little or no effort was made to have students understand their position in the world. Job skills and vocational training were very important for the students to learn as was the superiority of teachers. Physical control of the students was viewed as important for teachers.

Two schools of thought have dominated the literature relating to progress in schools. These two schools have been labeled by Rehberg and Rosenthal (1978) as the revisionists and the meritocrats. The revisionists assert that the major influence on progress in school is the social class of the student's family. The meritocrats assert that merit or ability, ambition, and achievement equal or exceed social class in determining school progress. The social class theory serves to help reproduce social classes since the limiting factor in school progress inhibits

advancement to upper class ranks. The authors found that merit more than family social class influenced progress from 9th to 12th grade and entry into college and the labor market; however, they could not negate that social class was a factor in that progress.

Education has been seen to be a major factor in the reproduction of social classes in the society in general. It may well be that education is not the primary cause of this reproduction and that reform efforts in schools are fruitless endeavors. Ogbu (1978) believes that the caste system that operates in this country overshadows the effects of school reform. He states:

Efforts to improve the school performance of castelike minorities as a way of improving their social and technological status are usually thwarted. Although education and socialization function essentially as complimentary modes of preparing young people for future adult roles, caste and castelike societies possess one system of role recruitment for the dominant caste (i.e., recruitment based on training and ability) and another for the caste minorities (i.e., recruitment based on caste origin rather than training and ability). Under this dual system of recruitment to adult status, no amount of educational reform and no programs to rehabilitate members of the castelike minorities can bring about equal school performance by the two groups (Ogbu, 1978, p. 37).

This study does not negate that reproduction of social classes does occur, but it does suggest that education's role in reproduction is limited by our castelike recruitment to adulthood.

Reproduction of social classes seems to be a part of our country that will not go away. Rist (1973) expressed the apparent inevitability of this problem in this way:

We began this study with the contention that myths die hard in America. If what we have seen in Attucks School is representative, we can add that inequality will also die hard. What we have found is an interlocking pattern of institutional arrangements descending from the macrolevel of the city-wide school system to the social and cultural milieu of a single school to the various stratification techniques employed by individual teachers in their classrooms. The outcome of this multileveled organization is ultimately expressed by comparing the experiences of the Tigers to those of the Cardinals and Clowns or more precisely, comparing the experiences of Laura to those of Lilly.

Throughout the various levels of the St. Louis educational system we found commonly shared assumptions about 'how things really are.' The basic tenets may be summarized as follows: Middle-class students can learn, lower-class students cannot; white schools are 'good,' black schools are 'bad'; control is necessary, freedom is anarchy; violence works, persuasion does not; teachers can save a few but will lose many; the school tries, the home will not; and finally, only the naive would dispute these beliefs, as the wise know. The outcome of this set of attitudes, assumptions, and values is that the school as an institution sustains, in a myriad of ways, the inequalities with which children first come to school. The school's response to issues of color, class, and control all mesh together to make two nets--one to catch winners and one to catch losers (p. 241).

Bloom's Taxonomy of Educational Objectives

Since the second part of the theoretical frame of this study was based on the work of Bloom (1956), the researcher felt that a section should be included in the review of literature that explained some of Bloom's ideas. Bloom's book on this subject is divided into three smaller handbooks according to domain. Book I contains discussion of the cognitive domain, Book II is used to review the affective domain, and in Book III Bloom explains the psychomotor domain. Book I on the cognitive domain relates to this

study and thus became a part of the theoretical foundation for the study.

The cognitive domain contains educational objectives which emphasize remembering or reproducing something which has been learned, as well as objectives which involve more difficult tasks for which an individual may have to re-order the information, combine it to form new information, or evaluate it according to some past learning. The largest number of educational objectives fall into this cognitive domain (Bloom, 1956, p. 6).

The cognitive domain of Bloom's taxonomy are divided into six levels:

1. Knowledge - Involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting.
2. Comprehension - Refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications.
3. Application - The use of abstractions in particular and concrete situations.
4. Analysis - The breakdown of communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit.
5. Synthesis - The putting together of elements and parts so as to form a whole.
6. Evaluation - Judgements about the value of material and methods for given purposes (Bloom, 1956, p. 10).

Bloom's Taxonomy may be used to examine teacher and student communication for higher levels of thinking. Higher levels of

thought result in a better understanding of content and allow students a deeper understanding of curriculum content. Simple memorization of rules, facts, and data do not lead to understanding. Bloom suggests that teachers should strive to lead their students above the knowledge and comprehension levels and up to the synthesis and evaluation levels to maximize learning (Bloom, 1956).

The Need for Study on Cultural Capital

The need for study on cultural capital is evident to those interested in equal educational opportunity. The literature has shown that it can be a factor in almost every aspect of the school process. Varying definitions of the term "cultural capital" may cause some confusion as to its exact meaning and use; however, there is a common understanding that cultural capital is related to social status and the way it is used to obtain things of value in the social world. The fact that researchers are now investigating this topic suggests that there is a need for information that will help clear the fog surrounding the topic. Many prominent researchers are calling for more study on cultural capital.

According to DiMaggio and Mohr (1985):

A vital element in Weber's classic theory of social stratification has been omitted in most contemporary studies of the stratification process. Although researchers have shown ingenuity in developing measures of 'class' or 'market position,' few have addressed the problem of how to measure participation in prestigious status cultures directly. Instead, most have attempted to capture 'status' through measures of such positional or demographic attributes as occupational rank, gender, socioeconomic status, or educational attainment (p. 1231).

Social class and cultural capital influence the educational, status, monetary, and informational resources that teachers and parents bring to conflicts over the education of children (Lareau, 1987). Parents and teachers may well have inborn differences that can impact on cooperative efforts. Research in the area of cultural capital and the way cultural capital is used in schools can provide greater understanding of the differences in perceptions between teachers and parents.

Lamont and Lareau (1988) suggest that further research on cultural capital, which sheds light on cultural reproduction and emphasizes individual strategies, can make an important contribution to research on culture, power, and social stratification.

Research that focuses on the individual student and conducted in the ordinary classroom was considered to be sorely needed (Brophy and Good, 1974). Ginsburg (1986) recommends that more research be done about learning potential, motivation, cognitive style, and the role of the social-political factors. These noncognitive factors were suggested to have more to do with progress in schools than the cognitive factors that fundamentalists have measured in the past.

These and other researchers have shown that there is a clear need to examine cultural capital in order to understand the way that it affects our society. This study attempts to address a portion of that need by examining how cultural capital affects teacher/student interaction and, ultimately, the success or failure of students in school.

Summary

Much research has been done on cultural capital and on teacher/student interaction. Cultural capital is related to status and to cultures, both of which have been investigated in the recent literature. Teacher/student interaction has long been identified as an integral part of the learning process and has thus received its share of scrutiny in the literature.

Cultural capital has been defined in the literature as items used by an individual to gain social standing, as high status culture and the way it is used, and, less formally, as the cause for social stratification, class reproduction, and social inequality.

The research indicates that status attainment in schools has much to do with school success. Class, culture styles, family background, and elite status groups have more to do with school success than intelligence. In addition, status attainment can influence the gatekeepers of high status positions to allow admittance of students into these higher status positions. Teachers, as gatekeepers of the educational status world, distribute grades and other symbols of school success based on the social status of the student as well as their actual performance.

Cultural capital may be used in schools in a variety of ways. Demographic measures and family background provide a form of cultural capital upon which the student may draw in order to gain college admittance, college completion, graduate education, and many other educational plateaus. On the other hand, the research shows that an absence of cultural capital can have a very negative impact

on students. Low motivation, lack of interest, discipline problems, and dropping out of school are all symptoms of a lack of cultural capital.

The literature also indicates that cultural capital can be very important in determining the role of the parent in the schooling of the student. The parent's response to the demands of the teacher for helping with homework, attendance at parent/teacher conferences, and participation in school events have all been shown to be directly related to the amount of cultural capital a family possesses.

Teacher/student relations and communication has been much addressed in the literature. School achievement has been shown to be directly related to teacher/student relations and communication. The teacher's perceptions of student work habits and basic skills are powerful determinants concerning the course grades given by the teacher to particular students. The relationship between the teacher and the student may be as important as coursework mastery in determining school achievement. Flanders' book (1970), Analyzing Teaching Behavior, presented a method for measuring the teacher/student interaction in the classroom and used this information to improve teaching and student learning. The work of Flanders was a part of the theoretical frame for the study.

The research indicated that in addition to the efforts and skills of the student, the social status of the teacher was important in school success. Teachers of higher status had more trouble developing good relationships with minority and lower status

students. Lower expectations by the teacher of these students may have had a negative influence on their achievement level. In addition, many white teachers had difficulty relating to black students and, consequently, directed little or no attention to these minority students.

Teacher expectations were shown to be a major factor in predicting school success. Many studies established the self-fulfilling prophecy of the teacher. Students perform up to, or down to, the expectations of their teachers. This phenomenon was evident in school achievement, behavior and control ideology, and sex role and name stereotypes.

Reproduction of social classes in education has been a topic of many research studies. The concepts of power, authority, class dominance, and cultural capital were discussed and examined to determine their relationship to reproduction of social classes. The school system uses these factors to teach the behaviors of the dominant class to the youth and thus reproduce the same social distinctions. These distinctions carry over into the workplace through educational selection. Higher paying jobs and more prestigious work positions are given to those who adhere to the more accepted social behaviors and who have attained recognition in the status controlled schools.

The literature also indicates that reproduction of social classes is also evident in the curriculum of the school. What counts as knowledge differs along dimensions of structure and content. The targeted social class of the students indicated

differences in what was taught and how it was taught. Higher class students received a more rigorous and higher academically oriented curriculum than lower class students. These lower class students received a curriculum more interested in job skills and basic computational skills.

A large portion of the literature on reproduction of social classes indicated that the problem was more than a school problem. The caste system in this country has more to do with this reproduction than any other factor. Our schools are merely a reflection of the greater society, and the school cannot change until the society changes. Our institutions of education sustain the inequalities with which children first come to school. These inequalities are then used for recruitment into the adult world based on social status and social attainment. The adult world on both ends of the educational setting determine the make-up of the school.

Bloom's Taxonomy of Educational Objectives were reviewed and presented as a portion of the theoretical basis for the study. Bloom proposed that greater understanding occurred when the cognitive level was in the higher ranges rather than on the knowledge or comprehension levels.

The need for study on cultural capital was well established in the literature. Cultural capital can be a factor in almost every aspect of education. Stratification, parent conflict, cultural reproduction, non-cognitive factors, and individual performance all relate to cultural capital and researchers have indicated that a

need exists for more study into these topics. This study addresses that need by examining the relationship between cultural capital and teacher/student interaction, a vital factor in the success of school children.

CHAPTER III

PROCEDURES

The primary purpose of this study was to determine if the quantity and quality of teacher/student interaction was affected by the amount of cultural capital a student possessed. This chapter was written to explain the methods and procedures that were utilized in the study.

Background Information for the Case Study

The School

The school examined in this case study was a small rural school in Oklahoma. While being a very typical school, its name has been kept confidential in order to provide a certain amount of privacy and protection for the students and faculty of the school. For the purpose of this study, the school was called, "OK High School."

OK High School is located in a town of approximately 2,500 people. Many of those individuals work in two nearby, larger cities and drive back to their homes each night. The major employers in the town are the school and the county courthouse. Few other businesses employ more than a handful of people.

The businesses in town are much like all of rural Oklahoma consisting mostly of cafes, convenience stores, filling stations, hardwares, auto parts and repairs, and lumber yards. The downtown area has many empty buildings despite efforts by citizen groups to rejuvenate the area. The business that appears to be the most thriving and prominent to anyone driving through town is the local agricultural cooperative which occupies several city blocks for all of its grain elevators, feed store, tire repair center, filling station, and fertilizer tanks.

Most of the citizens find their entertainment in the nearby cities of much larger populations, with one major exception. The school, as those in most rural communities, provides the patrons with many activities and functions for them to attend. The most obvious of these are the athletic programs of the school. Football, basketball, wrestling, and track events are attended by the parents of the students, as well as by a very significant part of the community as a whole. Band and vocal concerts, FFA shows and contests, speech contests and plays, and activities of other clubs and organizations also provide attractions for the citizens of the town. The importance of these activities is evident from the number in attendance at any of these events and from the conversations of the citizens the morning following any school activity.

The high school is housed on one city block with the high school building itself, the middle school, the superintendent's office, the gymnasium, and the auditorium making up its campus. The main building now in use was built in the 1960's with additions and

renovations through the years to meet the changing needs of the school. The only off-campus facility is the football field and wrestling room which is located a few blocks away.

The financial condition of the school is adequate to support the programs within the school, but few "extras" are provided. While not in one of the poorest schools in Oklahoma, OK High School pays their teachers according to the state minimum salary schedule. In addition, the district provides few fringe benefits for the staff, depends to a large extent on state aid, and provides a basic curriculum that reflects the minimum standards necessary for accreditation.

The Students

The population of OK High School at the beginning of the 1992-93 school year was approximately 200 students. The student body was made up of 46 percent males and 54 percent females. The racial statistics reflected a mostly white population with 88 percent white, 9 percent American Indian, 2 percent Hispanic, and only 1 percent Black.

The majority of students came from middle to low income families with few "rich" students in attendance. Twenty nine percent of the student body qualified for the federal lunch program of free or reduced priced meals. Data from this federal program were used in the study to determine the income level of the family for purposes of cultural capital rating. Those students who qualified for free or reduced meals were not credited with a

cultural capital rating point. The remaining students came from mostly middle income families.

Not unlike many other schools in Oklahoma, an increasing number of students came from homes different from what was thought to be the typical prior to 1960. That "ideal" 1950's home was considered to consist of two parents with the father working and the mother staying home to attend to the needs of the family. A large portion of the students at Ok High School came from homes that do not fit that "ideal" mold. This changing population has presented new challenges for the community and school, but both seem to be coping as well as other schools and communities.

The Faculty

The faculty was made up of 18 certified teachers, one counselor, one librarian, and one principal. The principal was the participant observer and author of this study.

As with other small schools, many of the teachers shared duties at the middle school and elementary school, with a few teachers in those schools reciprocating with assignments at the high school.

An equal balance of probationary teachers (teachers having been employed at OK school for less than three years) and career teachers (over three years at OK school) existed. Six of the 18 teachers had masters degrees while the other 12 had no advanced degree. There was an equal balance of males and females in the faculty. The male teachers tended to be segregated into the social studies area with coaching assignments coinciding.

The most evident imbalance in the faculty at Ok school was in racial diversity. All of the faculty would be considered white, with two teachers claiming some Indian heritage.

Methodology

A qualitative research design was chosen for this study. In an attempt to provide a holistic view of teacher/student interaction at OK High School, a form of triangulation was done to provide corroboration for the study. This was done by gathering information from three sources and utilizing several data gathering techniques.

The first data gathering method was by participant observation. The researcher observed the teacher/student interaction in the classroom and recorded the observations using a modified version of the Flanders Interaction Analysis (Flanders, 1970). This modified version included not only the number of interactions, but also the level of that interaction based on Bloom's Taxonomy of Educational Objectives (Bloom, 1956). The target of the communication as well as the initiator of that communication was also recorded (see Appendix A). In addition to the tally sheet, the observer later recorded any other information he might have observed as to the equality of attention given students by the teacher during the class.

The second method employed to gather information was by teacher interview. The author conducted interviews with each teacher using McCracken's (1988) long interview method. Each teacher was interviewed and that interview was recorded for later transcription.

The transcribed interviews were unitized into statements or paragraphs that could be grouped into sections with similar content. This allowed for themes to emerge from the interview data.

While much information was gathered from the interviews, two factors were most important concerning the relationship between the teacher and his or her students. The first factor sought by the interviewer was the teacher's perceptions concerning cultural capital. It was important to determine what factors the teacher recognized as valuable cultural capital attributes. The second factor sought was the teacher's perceptions of the quantity and quality of the teacher/student interaction in their classrooms.

The third source utilized to provide triangulation for the study was documents. Part of the cultural capital rating of each student was gathered from documents within the school. Previous grade, information on attendance, racial background, and the income level of the family was gathered using school documents.

This particular study also involved a degree of quantitative data. Counting the number of teacher/student interactions, counting the cognitive level of those interactions, determining the numeric value of each student's cultural capital assets, and determining any correlation between cultural capital ratings and the amount of teacher/student interaction all have a quantitative aspect. This combination of qualitative and quantitative methodologies might seem to be contrary to accepted assumptions about the two fields of inquiry (Smith and Heshusius, 1986). However, some researchers believe that educators should end the debate from the two camps and

"get on" with the business of using whatever technique will generate the desired results (Phelan, 1987; Greene et al., 1988; Patton, 1991).

This study was done from the paradigms and assumptions employed by qualitative theory, but without negating some degree of quantitative analysis. The purpose was not simply to prove or disprove a hypothesis but to provide a plausible explanation of how cultural capital and teacher/student interaction are related to each other.

Instrumentation

The Participant Observer

The primary instrument used in this study was the researcher. Participant observation was employed as the central method of gathering data. The researcher's observations and perceptions guided and directed the research throughout. Fieldnotes were taken by the researcher as the classroom observations were being done and as the teacher interviews were being conducted. These notes served to direct and modify the study as it was being done. The data produced from the interviews, observations, and cultural capital ratings were being analyzed and compiled during the process with the researcher's own insight becoming a part of that analysis. Lincoln and Guba's, Naturalistic Inquiry (1985) was used as a basis for the participant observation as well as Spradley's Participant Observation (1980). These books establish the use of participant observation as a valid research methodology. The credibility, or

internal validity, of the study will be judged to a great extent by the reader. The detailed information included concerning the methodology employed and a clear description of the care taken in the data gathering phase should aide the reader in determining that credibility. In a like manner, the dependability of the study depends upon the researcher's ability to describe the procedures of the study. This measure of consistency is a measure of the researcher's inquiry skills and his ability to convince the reader of those skills (Guba, 1981).

The Student Rating Form
of Cultural Capital

The rating form used was designed to measure the amount of cultural capital a student possessed (See Appendix B). The items in the form were developed from the review of literature concerning cultural capital and from the teacher interviews. Those items identified by the literature and by the teachers were then adapted to OK High School. Since some the items on the rating scale were somewhat subjective in nature, the school counselor, the school secretary, and the participant observer all three rated each student and an average was used to determine the rating for each student. These three were chosen since some of the items required that the raters have a certain amount of personal knowledge of the students. The school counselor had lived in the community for over ten years and had the knowledge necessary to rate each student and the school secretary was born and raised in the community and had worked for

the school for 30 years. The third rater, the researcher, had been the school principal for four years and was also familiar with the students and their families.

The cultural capital score of each student was determined by recording a "+1" for each factor that the student possessed. A "0" was recorded for each item that the student did not possess. The total was recorded at the bottom of the form to provide the numeric equivalent of that student's cultural capital. An average of the three ratings of the raters was then calculated and rounded to the nearest whole number to represent the cultural capital of each student. This allowed each student to be assigned a score of zero through 12 cultural capital points.

The Teacher/Student Interaction

Observation Form

As stated earlier, the observation form used in this study was a modified version of the Flanders method. The Flanders method employs categories divided into two major categories of teacher talk and student talk. The teacher talk is further divided into indirect influence and direct influence with four types of indirect influence and three of direct influence. The student talk is divided into response to the teacher and student initiated talk. In addition, a third broad category of silence or confusion is provided for times when communication cannot be understood by the observer. An additional category of "other" was added to both teacher talk and

student talk to record communication that was non-academic in nature.

In order to determine the level of the communication in the classroom, the Flanders form was modified to include the level of cognitive domain according to Bloom's taxonomy. This was done by dividing items #4, #5, #8, and #9 into the six levels of knowledge, comprehension, application, analysis, synthesis, and evaluation. These items correspond to the teacher asking questions (item #4), the teacher lecturing (item #5), the student responding (item #8), and the student initiating talk (item #9). Of the ten items from the Flanders method, only these can be evaluated by cognitive domain. The other six items from the Flanders method were not subdivided but were left as used in the original Flanders instrument (See Appendix C).

The use of the instrument was done according to directions for the Flanders method with modifications for determining which student the communication was directed to or from. This was done using a student code rather than a tally mark. Tally marks were still used for communication that was not directed to any particular student (See Appendix D for example of use).

Validity of the original Flanders form is well established. This modified form was examined by a group of experienced teachers and found to be valid in determining the level of communication as well.

The Teacher Interview Questions

The teacher interview questions were developed from activities in a graduate course on qualitative research methods (See Appendix E). This class allowed the researcher to practice the long interview method in developing and gathering information for qualitative research. The questions were developed, revised by the researcher and the instructor in the course, and tested by three interviews with teachers who were not a part of this study. This allowed the questions to be examined and evaluated for validity and reliability.

The first main question, "How would you describe your relationship with the students in your school?", was developed to allow the teacher to describe, in their own words, the relationship they had with their students. Should the teachers fail to include items such as rapport, discipline, classroom behaviors, and questioning methods, several prompting questions were prepared to ascertain the teachers' view of such items.

The second question, "How would you describe your students' personal characteristics?", allowed the teachers to describe the personal characteristics of the students in their classes. Again, if the teachers failed to include items such as social status of the student or the student's family, the income level of the student's parents, or the racial background of the student, prompting questions were used to draw this information from the teachers.

The third question, "What kind of things do you think help a student to be successful in school?", was developed to allow the

teachers to describe the things that they felt were important in order for a student to experience success in school. The teachers' perceptions of such items as past academic record, religious background, and participation in extracurricular activities were included in prompting questions should the teachers fail to give their opinions on such things.

"How important is class participation to school success?" was the fourth question of the interview. This question was used to determine the teachers' opinions of the value of class participation to school success. The researcher hoped that information concerning the teachers' views of active participation and equal time for each student would be included in the response of the teachers.

The final question allowed the teachers to describe the student that they thought was perfect. The teachers were asked, "How would you describe the ideal student?" Particular qualities that the teacher valued as well as the type of student that they enjoyed talking to during informal times was part of the information sought by the researcher.

Each of the questions were designed to allow a description of two important factors in the study. The first factor was that of the teachers' perceptions concerning the amount of cultural capital their students possess and which cultural capital traits were valued by the teachers. The second factor was the teachers' perceptions of the quality and quantity of teacher/student interaction in their classrooms.

A third goal of the interview questions was to help in the development of the cultural capital rating form. While the literature provided many items considered to be valuable cultural capital traits, the researcher felt that there might be certain traits that were unique to this school that the teachers recognized and valued as highly as those found in the research literature. The long interview method allowed the respondents the opportunity to provide information relating to those possible unique cultural capital attributes.

Document Information

Part of the information asked for on the cultural capital rating form was taken from documents at the school. The raters omitted items 2a, 3, 4 and 5a since this information was directly obtainable from documentary evidence. Item number 2a of this form asked for the income level of the student's family. Since exact incomes were not available, the Federal Lunch Program was used as a determining factor for income level. Information concerning the family's qualification for free or reduced meals was taken from school documents to determine this cultural capital factor.

Item number 3 of the cultural capital rating form was also taken from school documents. This item asked for the amount of participation of the student in school activities and clubs. This information was available from school records.

Item numbers 4 and 5a were also part of the document data that were taken from school records. Item number 4 had to do with the

past academic record of the student and information was taken from school transcripts of the previous school year. Item number 5a relating to racial background and demographic information was contained in school registration papers which were utilized to determine this cultural capital factor.

Data Collection

The participant observation was done by the researcher with the knowledge of the teacher, but not that of the students. The teachers were told that the researcher was observing their classrooms for graduate study, but were not told the exact nature of the study. Since the researcher was the principal of the school, it was not uncommon for him to spend time in the classroom for teacher evaluations, observation of students for placement purposes, and other normal duties. Part of the time spent in the classroom was actually used for these other administrative duties. While these other duties are not exactly a part of the everyday school classroom, it was common enough to allow the researcher to observe in the classroom without causing significant disruption. The effect that this might have had on the observation of the teacher/student interaction in the classroom is impossible to say. Since teachers typically strive to do their best when their superior is present, and teachers are aware that teacher/student interaction is a part of most evaluations, it might be fair to say that teacher/student interaction may have been higher during the observations than in the typical classroom without the presence of the principal.

Prior to observation for the study, the researcher spent several class periods at the Middle School practicing the use of the observation instrument. The researcher had previously used a similar instrument at another school that used a system of observation of teacher/student interaction as part of the overall teacher evaluation. These two factors allowed for some degree of proficiency in the use of the Flanders method.

The researcher observed each teacher for three class periods of 50 minutes each. The number of communications between the teacher and each student was recorded using the observation form. In addition to the number of communications, the level of the communication was recorded as was the target of the communication. A system of codes for each student was used to make the process faster and easier to use. The codes were later converted back to the students' name for data compilation. A class roster of each class was also compiled to make the transition from code to student easier.

The teacher interviews were conducted both before and after school as well as during teachers' planning periods. Teachers were interviewed using the questions described above and allowed as much time as they wanted to respond. The interviews were taped, transcribed, and later unitized to allow for emergent themes to develop from the interviews. The respondents were very cooperative and the average interview lasted 30 minutes.

Data Analysis

The primary purpose of this study was to describe the relationship between student cultural capital and teacher/student interaction. This type of study was deemed to be qualitative in nature and this did not focus on the testing of null hypothesis and other quantitative statistical analysis. A secondary purpose was to develop a method of rating student cultural capital using the literature and the perceptions and opinions of the teachers at OK School. This was also considered a qualitative concept that does not lend itself to quantitative methodologies. For these reasons, the data gathered were analyzed in a manner that allowed for its use as a descriptive tool in qualitative methodologies rather than for the determination of significance levels as used in quantitative methodologies.

The data gathered concerning student cultural capital ratings were analyzed using the descriptive statistics of central tendency such as the mean, the median, and the mode. In addition, the standard deviation was calculated for these cultural capital ratings. These statistics were used to describe the student population in terms of their cultural capital. Distributions by grade level were also included.

Analysis of data concerning the quantity of teacher/student interaction was done to provide comparison information. Frequency distributions of the observations at each of the levels of cultural capital ratings provided comparisons on a nominal level. Percentages of students from each cultural capital rating compared

to percentages of interaction for those students were also determined. The 12 possible cultural capital ratings were cumbersome and difficult to handle, therefore grouping of data according to low, middle, and high ranges were also included in order to allow for ease of description and comparison.

The data concerning the level of communication between the student and the teacher was analyzed in much the same manner as the data concerning the quantity of communication. An average was calculated for the number of interactions per observation at each of the cultural capital ratings. For easier comparison, the data were again grouped into low, middle, and high ranges for each of the six levels of Bloom's taxonomy.

The correlation of teacher/student interaction to cultural capital ratings was analyzed using averages of interaction per observation. In addition, the Pearson Product Moment Correlation was calculated to determine the correlation between the two.

Summary

Chapter III provided background information for the study and described the research design. An overall understanding and description of the relationship between cultural capital and teacher/student interaction was sought by gathering information from three sources.

Participant observation was utilized to gather a large portion of the data and to provide a description of the relationship from the view of the researcher. The aspects of credibility,

transferability, dependability, and confirmability were discussed in regard to qualitative research.

Teacher interviews were utilized using the long interview method to gain insight into the perceptions of the teachers regarding the amount of cultural capital students possessed and the quality and quantity of teacher/student interaction in their classrooms.

The development of the cultural capital rating form, the classroom observation form, the teacher interview questions, and the source of document information was discussed. Information was also included concerning data collection and data analysis. Chapter IV will discuss the findings of the study.

CHAPTER IV

FINDINGS

One of the major reasons for choosing a qualitative study was that it allows for the study of a phenomenon that does not exist in an easily controlled environment. Schools are just such an environment. The relationship between teacher and student is very complex and involved. Many variables have a direct influence upon how and when teachers interact with students. The results of this study are presented from this "multi-variable" viewpoint. A blend of statistical data and descriptive data are presented in order to address the many factors that influence teacher/student interaction and student cultural capital.

In addition, a qualitative study was chosen in order for the researcher to be a part of the study. According to Goldman (1990), one of the most important aspects of qualitative research is that it fosters an active role for the people studied and the researcher. This active participation could not be avoided since the researcher is also the principal of the school under study. Qualitative research allows for some degree of interaction between the researcher and the context. The effect that this interaction might have had on the findings is discussed and included as a part of the report. Qualitative research allows for this holistic type of investigation and thus can give a better overall picture of the topic of study.

Also, the researcher wanted to learn everything possible concerning cultural capital and teacher/student interaction at OK High School. This resulted in a very wide range of research questions that involved the many aspects already discussed. It was hoped that a qualitative study would allow a clear understanding of the "big picture" of cultural capital and teacher/student interaction. This has resulted in a study that had a very wide focus and findings that reflect that wide range. The variables and dimensions of cultural capital as used in this study are contextually bound. Generalizability was not an issue since greater understanding of cultural capital and teacher/student interaction at this particular school was the major focus.

This chapter of findings is divided into eight categories: introduction, cultural capital attributes, cultural capital ratings, quantity of teacher/student interaction, cognitive level of teacher/student interaction, teachers' perceptions of teacher/student interaction, correlation of teacher/student interaction to cultural capital ratings, and summary.

Cultural Capital Attributes

In order to meet the objectives of the study, the attributes that make up the total cultural capital of the students at OK High School must be a combination of both the generally accepted attributes from the literature and those attributes that the teachers in this school recognize and value. Both aspects were used in developing the cultural capital attributes presented here.

It may be important to point out that the variables and dimensions of cultural capital are contextually bound. Cultural capital may vary from school to school. This study sought to identify the major student attributes at OK High School that might cause teachers to differentiate among students. Other attributes may be present at this school that were not identified as major contributors to unequal teacher/student interaction, and other major attributes may be present at other schools that were not even minor considerations at OK High School.

The interview questions posed to the teachers of OK High School could not directly ask for cultural capital attributes. The full meaning of cultural capital at OK High School had not fully been defined at the time of the interviews since some of the definition had to come from the teachers themselves. In addition, to discuss cultural capital with the teacher prior to the formal interview might bias them into including some attributes based on that discussion. Rather than lead the teachers into saying things that they might not have said, more general discussion questions concerning school success and the things that they valued in their students were posed. The teachers were encouraged to discuss their relationships with their students and many things about academic success and teacher/student interaction. For this reason, the quotes used in the findings of this section may not include the term "cultural capital" directly, but discuss it indirectly in terms of school or academic success.

The first item used on the cultural capital rating sheet related to the social status of the student's family:

- 1) Social status of student's family.
 - a. The parents/guardians of the student are socially active and recognized as active members of the community.
 - b. The parents/guardians of the student are officers or leaders in local community or professional organizations.

This item was included as a factor in the cultural capital rating of a student based on the teacher interviews and the review of literature. Most teachers felt that while the social status of the student's family should not make a difference in school success, in reality it probably does. This is how some of the teachers responded to questions about the relationship of social status to school success.

*No matter how much a teacher wants to get away from that, I think that it is always there. Students put themselves in groups and teachers will put them in groups some.

*I think our society is pretty hooked on that (social status). I don't think it necessarily has to be that way. I think they can succeed just as good, but I think our society does think that if you are in the "in crowd" you are going to do better. I think that is just evident.

*I don't think social status should affect it, but I am not saying it doesn't, because it does affect it. I think a student should be able to achieve if they put their mind to it; but, I think social status will hold them back because they see they are placed in one type of society and they see they many not be able to move up.

The literature review indicated that social status was an important aspect of school success and thus cultural capital.

DiMaggio (1982) and Weber (1968) both reported that characteristics within particular status groups serve to aid efforts at reaping social benefits including school success. Other reports by Farkas, et al, (1988), Lamont and Lareau (1988), Farkas (1990), Sumner and Warburton (1972), and DiMaggio and Mohr (1985), also reiterated that social status is important to school success. This combination of literature and teacher response was a finding that indicated that social status should be included as a cultural capital attribute.

The second item of the cultural capital rating sheet was on family income level:

2) Family income level.

- a. The income of the family is such that the family does not qualify for free or reduced meals.
- b. The family income level is well above the average for this community.

This item, like the previous one, is also a result of both teacher response and literature review. The teachers were almost unanimous in their feelings that income level can have an effect on school success and on teacher/student interaction. A few pointed out that exceptions to this apparent rule do exist but that income level is definitely important to the education of children.

*In some cases family income is important to school success because I think a lot of times higher income families place more importance on education. I think there are also those families who aren't high income families that see education as a priority and those kids can prevail.

*If mom is working all night, she doesn't have time to worry about whether her children got their homework.

*I think families who are worried about whether or not they can feed their children their next meal or whether or not they are going to have enough money to buy a senior class ring or whether they have enough money to let their children try out for cheerleader - those are the kinds of worries that affect whether or not they are interested in their student's academic achievement.

*I think it has an effect on the individual. The income level of how they approach school. I think it has some affect on how important they see school. Whether or not they can afford to go to college and they need grades to get a scholarship.

*I feel that it probably does have some bearing on academic success. A kid that comes from a more financially successful family is going to have access to more material and is going to be exposed to more things than a kid that comes from a poor family.

*I think sometimes that some of the kids that don't have much at home don't ever expect to have much. They kind of resign themselves to - kind of set themselves up for failure. They don't have those experiences that somebody else has had. Someone that is used to having those things that they want and need.

As for the literature concerning this cultural capital attribute, studies by Bourdieu (1977 & 1986, Katsillis and Rubinson (1990), Anyon (1981), Rehberg and Rosenthal (1978), and Ogbu (1978), all include income as a part of the reproduction of a class system and a major factor in the achievement level of school children. Again, the evidence for including the income level of the student's family as a cultural capital attribute is quite convincing both from the teachers at OK High School and from the current literature.

The third item included on the cultural capital rating assessment concerns the activities of the student:

3) Activities of the student.

- a. The student participates in one or more school club, organization, or sport.

- b. The student is an officer or leader of a club or organization or is a starter on a team.

This attribute was not found as extensively in the literature as the two previous attributes. The literature did, however, address activities in an indirect manner in the aspects of status attainment (DiMaggio, 1985), curricular tracking (Katsillis and Rubinson, 1990), and reproduction of social classes (Rist, 1973). On the other hand, the teachers at OK High School placed a very high priority on activities as an indicator of school success. A few of their comments are given here to show just how important they viewed activities.

*I think activities are very important. I think you will find those kids that don't participate in extra-curricular activities don't participate in the educational aspects or classroom aspects either. I think you find a very close relationship in that whether it be athletics, ag, band, or whatever. Those that achieve well in extra-curricular activities usually achieve well in the classroom.

*First of all, without activities you wouldn't be able to reach the total population of the school. Not everyone is going to gain just from the classroom, and I think there is a lot to be gained from extra-curricular activities as far as being able to interact with other students, being able to be self-motivated, being self-disciplined. To work in situations that may be a little more difficult than what the classroom could ever present.

*I think a person who is more involved tends to have more pride in themselves. They tend to want more from their education than just book learning. I think it is a positive thing.

Not only did the teachers at OK School think that school activities were important, many thought that it was the primary reason that many kids attend school. Their comments showed that

activities play a major role in the motivation of kids to do better in class and to attend regularly.

*I feel like if they are in some type of activity, they are going to realize that this is my calling and I gotta keep my grades up to do it.

*Well, just like sports. They have to pass to play and the coaches encourage them. I have seen in specific students achievement in school just because of sports.

*It is the reason that kids come to school.

*Extra-curricular activities give them the incentive to do it (academics) so that they can participate in the extra-curricular activities.

*I think the extra-curricular activities are a must.

*Participation in activities is real important. I think I read an article on drop-out prevention the other day that said that kids not only learn about organizing and working in groups but focusing on a project and being able to complete it and feeling good about that. It gives them a reason to be here. It gives them social skills that they might not otherwise develop.

Another aspect that was investigated in relation to activities was to determine whether or not the teachers valued one activity over another. Should this have been true, the cultural capital rating of a student would need to reflect a higher priority for participation in these favored activities. While some of the teachers, primarily the coaches, felt that athletics might be more valuable than other activities, most indicated that any activity fostered involvement in school and thus lead to better school success.

*I think different activities for different people. You know for those students who are not athletically inclined, I think that music, band, or speech is better for that type of person. If a person is very gifted athletically, football, basketball, or wrestling is

better for them. So it really depends on the individual.

*I don't think there is one that is more important than others. One person may play a sport and that be the most important thing for them and keep them going in school. Somebody else may be involved in one of our clubs here and they may not be sports minded at all, but that is what is important to them.

*I think the most important are those that foster leadership. I think the leadership activities they are involved in, not only in my programs, but in other programs, are most important. For example, the leadership in public speaking. Things that more prepare them for things they are going to be involved in life as far as extra-curricular activities.

*I don't think it matters what they are going to do as long as they are involved. Band, chorus, athletics, ag, or anything that they want to do extra. I think it gives them the tendency to work better.

*I don't know that you can say one is more important than the other. They all teach teamwork, how to achieve, how to succeed. They all have their advantages.

*Whatever is important to that student. I can't think of any of them, at least of what we have here, that are not important to a particular student. Sometimes that is the only reason to stay in school is to be in athletics. I know kids if they were not in band they might not have stayed in school. Same is true with ag.

It is clear from the teachers that activities are very valuable to school success and should be a part of a cultural capital rating. Since most teachers valued all activities, no differentiation was included for particular activities on the rating sheet.

Item #4 of the cultural capital rating sheet is based on the past academic record of the student:

4) Academic aspects of the student.

- a. The student had no D's or F's during the last school year.

- b. The student was on the Principal's or Superintendent's honor roll the previous semester.

This item was found to be important as a cultural capital attribute from observations of the researcher and from the teacher interviews. In discussing kids and schools with teachers, it was almost impossible to have a conversation without talking about "good kids." The teachers' meaning of what was a "good kid" included two major attributes. The first was attitude, which is included as a cultural capital attribute and is discussed later in this study. The second involved grades and academic achievement. This factor seemed to be almost a given as to its importance in a school setting. The major focus of the school is academic progress, which is measured by grades. Good kids are those that make good grades and are well behaved. This idea surfaced many times indirectly throughout the teacher interviews in response to questions that were not seeking to find out about what a "good kid" might be.

*Here at OK High School we've got all the way from what I consider good kids that don't cause any problems in class and make good grades to kids that are struggling and failing in classes.

*Past academic success pretty well tells you whether they can work in your class or not.

*Usually the ones that are lower achievers (are more of a discipline problem) because they are less motivated and they are more likely to talk. They don't see the importance of what we are doing. So they don't care to listen and they are more likely to cheat and things like that.

*Most of the students that I have are average or below average achievers. I think probably in other classes I have a few good kids who are really good students everywhere.

This item related to the very heart of what teachers thought schools are all about, grades. Every teacher recognizes those students who make good grades and consistently perform in their classes. The academic aspects of the student were found to definitely be a cultural capital attribute.

The fifth item on the cultural capital rating sheet is actually a combination of two factors: race and religion:

5) Race/religion.

- a. The student is not a member of a minority.
- b. The student is a member of a church and attends often.

These two factors were combined into one due to their seemingly less importance. Past researchers have found that the race of the student can have a very pronounced impact on their success in school (Rubovits and Maehr, 1973; Anyon, 1981; and Ogbu, 1978). However, at OK High School, the lack of racial diversity decreased the importance of this aspect as a cultural capital attribute since there was only a twelve percent minority population. Most teachers typically indicated that the race of the student had no effect on school success or on how they related to the student. The nine percent American Indian population of the school many times had few characteristics that differentiated them from the eight-eight percent considered white. Their Indian heritage existed on paper and was simply a statistic that few of the teachers even recognized or knew about. When specifically asked about the American Indians at OK High School, a few responded that some of the Indian kids were less successful due to their race, but many teachers still indicated

that it made no difference. The two percent Hispanic population equated to only four students, three of which were very active in all aspects of the school. The one percent black population was actually only one student who was also active in school activities and had few difficulties in class. This apparent lack of concern for the race of the student is evident from these teacher comments.

*I don't think race makes any difference. At least not in my opinion. We have had very successful students from all different areas that we have. We don't have many blacks, but I don't feel like that is bad because they are black.

*I think the color and the racial and all that is not as much of a difference as in the past.

*I don't see any racial problems as such over there (in my class). Of course, I think the whole school seems that way.

*I don't find it here in our school system.

*We don't have racism because we don't have a lot of races.

*We have very few blacks in the community. A fair percentage of Indian heritage but no, I have not seen a distinction of these students.

When specifically asked about whether there might be some difference in the success of Native American students at OK High School, some teachers did feel that their racial background could make a difference.

*Yes, a little bit. The Native Americans, not all of them but some of them, they have that problem of not getting involved.

*I know that they have a very distinct different outlook on what is important in life and sometimes we don't tend to recognize that in different cultures.

*Our Indian population, we have a lot of them that are very motivated and some that are not really motivated. Most everything is home life and how it relates there. I think maybe that it is pretty important to relate to their culture.

*I think maybe the Indians may have more problems.

*I believe that in certain high concentration areas, for example around here, a lot of people, and I see it in my students, are a little bigoted toward the Indians.

*I think that some Indian families are being destroyed. I know several in (another school) that had no interest at all in that their kids were being destroyed. That was life. It was more important that they go to the pow-wow and spend three days out because Uncle George died than it was to go to school. That was their culture thing. That was just more important.

*I think they bring with them some cultural beliefs or events that are not those who are white and middle class. I think we teach to the white middle class culture.

The religion part of this cultural capital item was found to be important in the opinion of some of the teachers but not in others. Those who felt that religion might have some importance to school success typically thought that students having some religious background could exhibit behavior characteristics that help them be more successful in school. A few of those comments are given.

*I do think it helps as far as getting through high school as far as teenage years. Getting through problems and that kind of thing.

*I think it is a stabilizing influence in anyone's life no matter what they are doing. It would be a help to a student in that it would give you a stability and forces us to make better decisions.

*I think a person who is a devout Christian, someone who believes there is a certain way to live, a right and wrong way to live, may have a tendency to want to do better.

*I think those people that do have religious backgrounds do a little bit better job of goal setting. I think their lives are a little bit more stable.

*I think they can work through difficult situations with a little bit more confidence than those who do not have a religious background.

*I do think that a lot of them have more respect.

Those teachers who felt that religion made no difference offered little explanation except to say that they could not tell a student who went to church from one who did not. Typical responses were of this nature:

*I don't think so, but there are a lot of students that I am not familiar with, their religious background as far as the church they might go to or anything like that.

*My opinion would say, "Being a member of a church and going to church just does not make one a better student," if that is what you consider a religious background.

*I think that most all of them have some kind of religious background, but I don't think that it plays a significant part.

This lack of unanimous feeling toward the importance of both race and religion at OK High School resulted in a finding that both should be included as a cultural capital attribute, but that they should have a somewhat diminished value in relation to the other attributes.

The final item included as a cultural capital attribute is that of attitude:

6) Attitude.

- a. The student has regular attendance and is punctual.

- b. The student comes to class with required materials and with a positive attitude.

This item was found to be present in the literature as a significant factor in teacher/student interaction and school success (Farkas et al., 1990; Alexander, 1991; and Dornbush & Natriello, 1984). Not only did the literature support the importance of attitude to school success, the teachers at OK High School overwhelmingly believed that attitude was a key factor in the success of a student. Attitude is reflected in many aspects of the student's behavior including punctuality, regular attendance, coming to class with required materials, work ethic, dependability, and eagerness to learn. A few of the teachers' responses to what they felt helped make a student successful in school are included here and reveal how important attitude might be.

- *First of all, an eagerness to learn and some push from home. They have to be willing to listen, follow directions, and be willing to put some energy into learning.

- *I think that they have to be willing to put as much effort into it as possible.

- *The top of my list would be self-discipline. If a child wants it, then they are willing to go after it and to discipline themselves to do that thing.

- *I think respect. We have got to have kids that have respect for things around them to be successful. Some have it and some don't.

- *Encouragement, communication, discipline, hard work, respect. All of those basically help you be successful.

- *I think the tendency to be diligent and make sure all the work is handed in and done on time tends to help a student be successful.

- *I guess one who will come in and do their work, but also show that they have some character and personality. Someone that is dependable.
- *They come in and they sit down and they are anxious to learn.
- *Attentive, on time, does not create class disturbance, shows a willingness to learn.
- *A student that comes to class prepared, ready to go to work, eager for new information.
- *Know how to act, know when to be quiet, know how to interact, know how to behave themselves in a controlled environment or in an uncontrolled environment.
- *The student who comes to class, is on time, who is prepared, and has all their books, papers, pencils ready when he comes to class. People who turn their work in on time, and sees the point of doing every assignment not just to get the grade, but to make sure they know the material.

The attributes of social status of the student's family, family income level, activities, past academic aspects, race/religion, and attitude, were found to be the most significant factors in determining the cultural capital of the students at OK High School.

Cultural Capital Ratings

Once the attributes of cultural capital for students at OK High School were determined, each student at the school was rated using the cultural capital rating sheet shown here:

CULTURAL CAPITAL RATING SHEET

Student Name _____

I.D. Number _____

Place a "+1 in the blank beside each factor that the student possesses. Place a "0" in the blank if the student does not possess that factor.

- 1) Social status of student's family.
 - a. The parents/guardians of the student are socially active and recognized as active members of the community. _____
 - b. The parents/guardians of the student are officers or leaders in local community or professional organizations. _____

- 2) Family income level.
 - a. The income of the family is such that the family does not qualify for free or reduced meals. _____
 - b. The family income level is well above the average for this community. _____

- 3) Activities of the student.
 - a. The student participates in one or more school club, organization or sport. _____
 - b. The student is an officer or leader of a club or organization or is a starter on a team. _____

- 4) Academic aspects of the student.
 - a. The student had no D's or F's during the last school year. _____
 - b. The student was on the Principal's or Superintendent's honor roll the previous semester. _____

- 5) Race/religion.
 - a. The student is not a member of a minority. _____
 - b. The student is a member of a church and attends often. _____

- 6) Attitude.
 - a. The student has regular attendance and is punctual. _____
 - b. The student comes to class with required materials and with a positive attitude. _____

TOTAL _____

(Maximum value of cultural capital = 12 points)

These ratings were needed in order for the researcher to make comparisons in the quality and quantity of teacher/student interaction to the cultural capital rating of the students involved

in the interaction.

This rating instrument was used simply to provide some measure of the cultural capital attributes of the students at OK High School. Discussion and analysis of how each cultural capital factor might be more important than others, or how each attribute might be more important to individual teachers was not deemed integral to the study. These ideas could be important aspects of future studies relating to cultural capital; however, this study was concerned with finding a method for differentiating among students based on the number of cultural assets they possess.

The researcher, the school counselor, and the school secretary each rated every student at OK High School based on their knowledge of the student and the student's family. Items 2a, 4a, and 4b were taken directly from school records and were not rated by the three evaluators. The other items were evaluated by the raters in the student's rating. An average of the three independent ratings was then calculated to determine the rating of each student.

The population of OK High School had changed somewhat from the beginning of school to the time of the rating (Spring). There were now 51 9th graders, 52 10th graders, 52 11th graders, and 33 12th graders. Two of the 12th graders were excluded from the study since they were foreign exchange students and many of the cultural capital attributes were difficult to determine and might not apply. These two students were also excluded from all other data of the study.

Table I displays the cultural capital ratings of the 186 students by grade. Each grade shows more students falling in the middle ratings with a tapering effect at both ends of the rating extremes. This lends some credence to the statement made in the background information concerning the type of students at OK School. Few students are in attendance that are perfect 12's and few are 0's. The student population consists largely of middle-class, middle-income, middle-cultural capital students. A few exceptions do exist to this rule as in the 9th grade with six students having a rating of two, and in the eleventh grade with three ratings of 12.

Figure 1 is a histogram of the data displayed in Table I. This histogram shows that the students at OK School do not fit the normal bell shaped curve in every respect, but are approaching that standard.

Table II shows that the mode, median, and mean were all 6 for this set of data. The standard deviation was calculated to be 3.19. While much statistical analysis might be done on this set of data, little significance could be found from that analysis in relation to this study.

Table III depicts the distribution of cultural capital by teacher in the observed classes. While this information does not yield direct information concerning the quantity of interaction, it does reveal valuable information concerning the distribution of students with varying amounts of cultural capital in the classes at OK High School. These distributions were used later to determine the average number of teacher/student interactions per observed class.

TABLE I
CULTURAL CAPITAL RATINGS BY GROUP

Rating	9th	10th	11th	12th	Total	Percent
0	1	2	1	0	4	2
1	2	3	0	4	9	5
2	6	6	2	1	15	8
3	2	5	3	3	13	7
4	5	5	6	2	18	10
5	3	2	7	2	14	8
6	9	4	8	5	26	14
7	6	8	6	2	22	12
8	4	6	4	2	16	9
9	6	1	3	2	12	6
10	2	4	5	2	13	7
11	4	5	4	4	17	9
12	1	1	3	2	7	4
Total	<u>51</u>	<u>52</u>	<u>52</u>	<u>31</u>	<u>186</u>	<u>101</u>

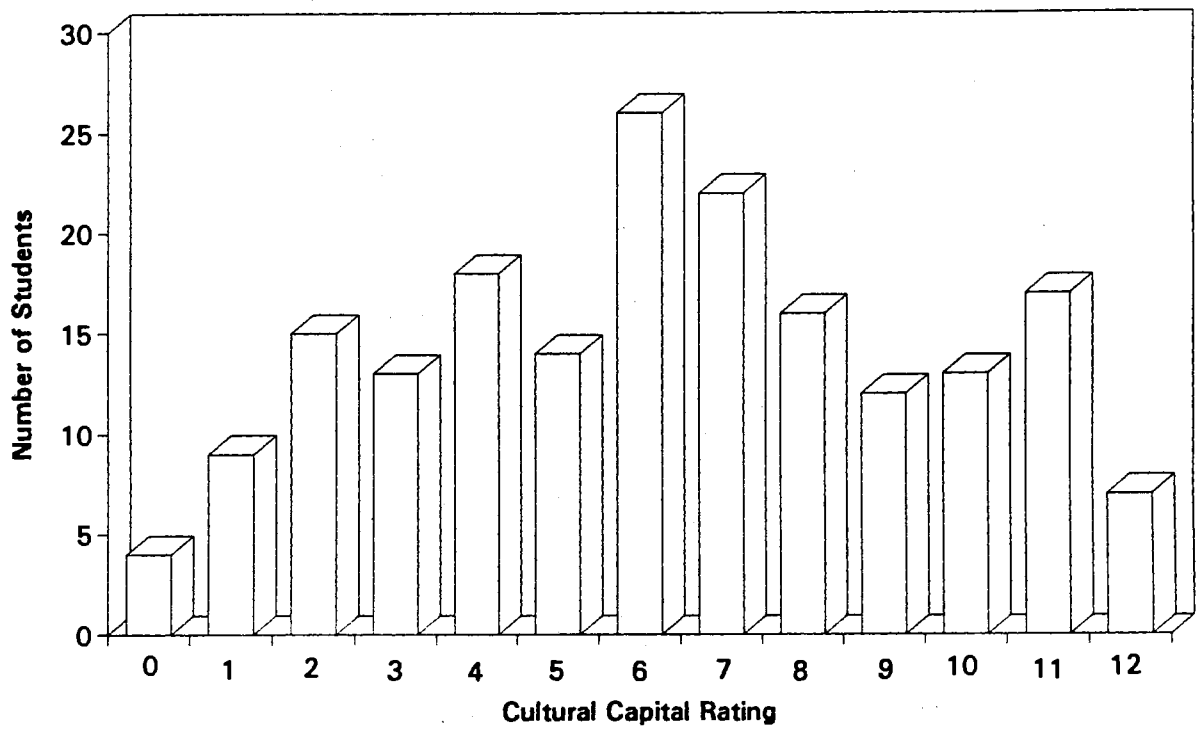


Figure 1. Histogram of the Number of Students With Each Cultural Capital Rating

TABLE II
DESCRIPTIVE STATISTICS FOR CULTURAL CAPITAL RATINGS

N	Mode	Median	Mean	SD
186	6	6	6	3.19

TABLE III
DISTRIBUTION OF CULTURAL CAPITAL BY TEACHER
IN OBSERVED CLASSES

Teacher	<u>Level</u>													Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	
1	1	1	3	4	5	3	8	3	3	4	7	7	4	53
2	0	0	0	0	4	4	4	7	9	4	11	13	6	62
3	1	4	6	9	4	3	7	2	4	1	2	0	0	43
4	0	3	3	1	3	4	10	11	8	6	5	9	2	65
5	3	1	8	5	7	3	9	5	5	2	6	5	0	59
6	0	0	1	1	3	1	3	0	1	1	1	0	0	12
7	1	1	2	2	3	1	3	4	1	4	0	4	1	27
8	0	4	0	2	6	5	6	3	1	0	0	1	0	28
9	0	2	5	0	2	1	6	6	5	7	5	9	4	52
10	1	1	3	2	4	1	11	8	2	2	3	5	6	49
11	0	0	5	2	4	0	1	2	2	1	3	2	1	23
12	0	3	1	0	6	7	6	6	4	2	6	5	3	49
13	1	5	7	4	3	4	5	14	3	5	2	4	2	59
14	0	5	1	2	6	1	6	3	7	2	5	10	2	50
15	1	1	3	5	6	4	5	6	5	2	3	3	1	45

In addition, this data provides information concerning the make-up of the classes at OK High School.

One of the purposes of the study was to find the cultural capital ratings of each student in order to compare those ratings to the amount of teacher/student interaction each student encountered. Having determined those cultural capital ratings, the researcher is now ready to present data concerning the quantity of teacher/student interaction.

Quantity of Teacher/Student Interaction

The quantity of teacher/student interaction could not be measured simply from the number of times communication took place since the observation time of each student was not the same for all. Table IV displays that type of information and should not be used for comparison purposes. The data from Table IV was used in conjunction with Table III to calculate percentages that can be used for comparison purposes. The distribution of students in each class can be used to determine the percent of students with each cultural capital rating in the observed classes (Table III). The quantity of teacher/student interaction can be used to calculate the percent of time communication was taking place at each cultural capital rating (Table IV). This new data, produced from the two previous tables is presented in Table V.

The data of Table V have been grouped according to Low (0-4 CC rating), Middle (5-8 CC rating), and High (9-12 CC rating). This allows for an easier comparison of the amount of teacher/student

TABLE IV
TEACHER/STUDENT INTERACTIONS FOR EACH CULTURAL CAPITAL
RATING/TEACHER

Teacher	<u>Level</u>												
	0	1	2	3	4	5	6	7	8	9	10	11	12
1	0	0	0	1	3	0	3	4	6	6	21	21	9
2	0	0	0	0	5	5	0	5	18	22	14	73	33
3	1	10	15	8	14	11	17	0	0	5	8	0	0
4	0	3	5	0	1	7	10	20	22	17	18	22	11
5	7	0	20	0	24	4	26	22	6	0	32	18	0
6	0	0	0	1	0	4	8	0	0	0	6	0	0
7	0	0	2	0	0	0	1	4	9	7	0	23	4
8	0	21	0	6	4	10	16	0	7	0	0	7	0
9	0	0	3	0	0	0	11	19	29	11	13	26	12
10	6	0	3	0	4	14	2	25	1	0	13	45	27
11	0	0	55	0	2	0	0	0	4	0	4	9	2
12	0	0	50	0	4	9	7	6	12	6	55	30	19
13	0	4	17	4	2	5	12	17	3	5	2	6	3
14	0	0	0	0	5	0	0	9	2	2	13	42	2
15	0	0	0	4	1	0	0	4	8	4	7	11	6

TABLE V
TEACHER/STUDENT INTERACTION BY GROUPINGS

Teacher	# Std	LOW: 0-4			MIDDLE: 5-8				HIGH: 9-12			
		%	# Int	%	# Std	%	# Int	%	# Std	%	# Int	%
1	14	26	4	5	17	32	13	18	22	42	57	77
2	4	6	5	3	24	39	28	16	34	55	142	81
3	24	56	48	54	16	37	28	31	3	7	13	15
4	10	15	9	6	33	51	59	42	22	34	74	52
5	24	41	51	32	22	37	58	36	13	22	50	31
6	5	42	1	5	5	42	12	63	2	17	6	32
7	9	33	2	4	9	33	14	28	9	33	34	68
8	12	43	31	44	15	54	33	46	1	4	7	10
9	9	17	3	2	18	33	59	48	25	48	62	50
10	11	22	13	9	22	45	42	30	16	33	83	60
11	11	48	7	27	5	22	4	15	7	30	15	58
12	10	20	54	27	23	47	33	17	16	33	110	56
13	20	34	27	34	26	44	37	46	13	22	16	20
14	14	28	5	7	17	34	11	15	19	38	59	79
15	16	36	5	11	20	44	12	27	9	20	28	62
Total	193	29	265	18	272	40	443	30	211	31	756	52

interaction according to level of cultural capital. This grouping better serves the purpose of the study, to compare teacher/student interaction to the level of cultural capital ratings. That purpose is just as easily served by comparing Low, Middle, and High ratings.

This table (Table V) allows for some comparisons by presenting the number of students with each cultural capital rating in each of the observed classes, the percentage of the total students for that group, the number of interactions at each level, and the percentages of interaction for each teacher. For example, in all of the observed classes of teacher #1, there were 14 students with CC ratings of 0-4. This number represented 26% of the teacher's students in the observed classes. There were a total of 4 interactions with students from this Low (0-4) cultural capital rating group, which represents 5% of the total interaction attributed to specific students for that teacher. Also, teacher #1 had 17 students in the Middle group, which was 32% of his or her students, interacted 13 times with these students, which represented 18% of the total interaction. Lastly, teacher #1 had 22 students with ratings in the High category, which was 42% of her students, interacted with them 57 times for 77% of the total interaction.

Table V presents the information outlined above for each of the fifteen teachers of the study. Each teachers' numbers differ to some degree; however, one theme runs throughout the data. The percent of interaction compared to the percent of students with that rating is not the same. In the Low CC range, all teachers except #8, #12, and #13 have significantly lower percent of interaction

than the percent of students. Conversely, and with only teacher #13 as an exception, the High CC rating group reveals a much higher percent of interaction than the percent of students in that category. Interestingly, the Middle range also shows lower interaction percentages than the student percentages. Eleven of the teachers interacted with these Middle students to a lower percent than the percent of students contained in the group, while only four were the converse.

The total of all teachers at the bottom of Table V presents information concerning the overall teacher/student interaction versus cultural capital ratings for each of the three groups. Twenty-nine percent of the students observed were in the low range, while only 18% of the teacher/student interaction took place in this range. Forty percent of the students observed were in the Middle range, yet 30% of the interaction was within this range. Lastly, 31% of the observed students were in the High category with 52% of the teacher/student interaction occurring with those students.

This is a very significant finding that has direct bearing on the research questions posed for the study. There does seem to be a significant difference in the amount of teacher/student interaction for various levels of cultural capital. Specifically, the higher the cultural capital rating, the more teacher/student interaction. Conversely, the lower the cultural capital rating, the lower the amount of teacher/student interaction.

Cognitive Level of Teacher/Student

Interaction

As described earlier, the cognitive level of the teacher/student interaction can also be an important factor in the success of students in school. The observation instrument used in this study used Bloom's Taxonomy of Educational Objectives to determine the level of the interaction taking place in the classroom. In addition, the instrument allowed for a record of which students were involved in that interaction. A more thorough definition of Bloom's (1956) levels of cognitive domain is displayed here to aid in understanding later data.

Bloom's Taxonomy of Educational Objectives:

Cognitive Domain:

Knowledge - Involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting.

Comprehension - Refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications.

Application - The use of abstractions in particular and concrete situations.

Analysis - The breakdown of communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit.

Synthesis - The putting together of elements and parts so as to form a whole.

Evaluation - Judgments about the value of material and methods for given purposes.

These levels of cognitive domain were assigned level numbers in order to facilitate data handling. The knowledge level was assigned Level #1, comprehension-Level #2, application-Level #3, analysis-Level #4, synthesis-Level #5, and evaluation-Level #6.

The cognitive level of the teacher/student interaction in relation to the cultural capital rating of the student involved in the interaction is displayed in Table VI. The first column presented represents the cultural capital rating. The second column is the number of times a student with that particular cultural capital rating was observed in a class. Each of the succeeding columns are the six levels of cognitive domain divided into the number of interactions and the number of interactions divided by the number of students observed. This last number under each level represents the average interactions per observation for each cultural capital rating.

An examination of Table VI shows that the amount of interaction at Level 1 is significantly more than the amount of interaction at any of the other levels. In fact, each cultural capital rating contains more interactions at Level 1 than the total of the other four levels. It can also be seen that the amount of interaction at Level 2 is much greater than any of the higher levels with two very minor exceptions. Those exceptions are at CC rating 0, which had 0 interactions at Level 2 and 2 interactions at Level 3, and at CC

TABLE VI
 COGNITIVE LEVEL OF THE TEACHER/STUDENT INTERACTION
 IN RELATION TO THE CULTURAL CAPITAL RATING

CC Rate	#Stds Obsd	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
		# Int.	Int/ Obs.	# Int.	Int/ Obs.	# Int.	Int/ Obs.	# Int.	Int/ Obs.	# Int.	Int/ Obs.	# Int.	Int/ Obs.
0	9	9	1.00	0	0.00	2	0.22	0	0.00	0	---	0	---
1	31	27	0.87	2	0.06	1	0.03	1	0.03	0	---	1	0.03
2	35	73	2.09	3	0.09	2	0.06	0	0.00	0	---	0	---
3	38	16	0.42	2	0.05	1	0.03	0	0.00	0	---	0	---
4	64	51	0.80	1	0.02	2	0.03	1	0.02	0	---	0	---
5	42	49	1.17	3	0.07	2	0.04	1	0.02	1	0.02	1	0.02
6	91	75	0.82	21	0.23	9	0.10	1	0.01	0	---	1	0.01
7	75	80	1.00	17	0.23	0	0.00	0	0.00	0	---	0	---
8	60	72	1.20	17	0.28	4	0.07	0	0.00	0	---	0	---
9	42	58	1.38	14	0.33	2	0.05	0	0.00	0	---	0	---
10	57	150	2.63	25	0.44	5	0.09	0	0.00	0	---	0	---
11	75	224	2.99	45	0.69	10	0.13	4	0.05	2	0.03	0	---
12	20	74	2.47	25	0.83	4	0.13	1	0.03	3	0.10	0	---

rating 4 which had only 1 interaction at Level 2 and 2 interactions at Level 3. Level 3 interactions follow the same pattern as that of Level 1 and Level 2. In other words, the number of interactions at Level 3 is greater than the number of interactions at the levels higher than 3.

The number of interactions above Level 3 were greatly reduced. This sparsity of interactions produced data that is difficult to compare with other levels except to say that there was very little interaction above Level 3. The one major exception to that was at CC rating 11 where there was 4 interactions at Level 4 and 2 interactions at Level 5. These numbers represent a rare occurrence in a class where the teacher and student conversed on the analysis and synthesis level of the cognitive domain. It should also be pointed out that there were only a total of 3 interactions on the highest level of the domain, Level 6 or evaluation. These interactions took place with students of CC ratings 1, 5, and 6.

Table VI also shows an increase in the average interactions per observation as the CC rating increases. At Level 1, for example, this average fluctuates somewhat in the lower CC ratings by bouncing up and down a little but staying around 1.00 (except for CC rating 2) but finally reaches 0.82 at CC rating 6. At that point it begins a steady rise from 0.82 to 2.99 at CC rating 11. A slight decrease occurs from CC rating 11 to CC rating 12 as this average dropped from 2.99 to 2.47.

Level 2 shows similar increases after CC rating 4. The averages at the lower CC ratings fluctuate due to the reduced number

of interactions. A single interaction can change these averages drastically when the total interactions are very low. Above CC rating 4, however, the number of interactions increase and more usable data are produced. From CC rating 4 to rating 12 the average number of interactions increases from 0.02 to 0.83. While this seems like a large increase statistically, these numbers still represent less than one interaction per student observed.

Above Level 2, the sparsity of interactions make comparisons somewhat meaningless. The table reveals numbers at each CC rating for Levels 3, 4, 5, and 6, but little can be said about the data except that there was not much interaction at these levels.

Perhaps a more revealing method of displaying the data concerning cognitive level is presents in Table VII. This table condensed the data from Table VI into slightly more understandable groups. Table VII represents the average number of interactions per number of students observed at the three levels of CC rating. As previously presented, the cultural capital ratings can be grouped as Low (0-4), Middle (5-8), and High (9-12). This grouping allows for better comparison since it increases the number of interactions and produces more easily compared data.

This table (Table VII) shows that at each of the levels of cognitive domain, the average number of interactions increase as the CC ratings increase. The most obvious increase was at Level 1 where the average increased from 0.99 in the Low CC rating category to 2.48 in the High CC rating category. This is consistent with earlier findings that there was more interaction at the higher CC

TABLE VII
INTERACTIONS/NUMBER OF STUDENTS OBSERVED
AT EACH LEVEL OF BLOOMS' TAXONOMY

Level	Low 0-4	Middle 5-8	High 9-12
1	0.99	1.03	2.48
2	0.05	0.22	0.53
3	0.05	0.06	0.10
4	0.01	0.01	0.20
5	0.00	0.00	0.02
6	0.01	0.01	0.00

ratings. More significantly to this part of the study was the data at Level 2 and Level 3. Both of these levels also produced increases in the average interaction from the Low CC rating category to the High CC rating category. Level 2 progressed from 0.05 in the Low CC rating to 0.22 in the Middle category to 0.53 in the High category. Level 3 increased from 0.05 to 0.06 to 0.10 in the same respective categories. While increases also occurred at Levels 4, 5, and 6, the lack of interaction at these levels make this data somewhat useless.

In summary, there was more high cognitive level communication with students of high cultural capital ratings than with middle or low ratings. Similarly, there was more high cognitive level communication with students in the middle cultural capital ratings than with students with low ratings. This finding was more pronounced at the cognitive levels 1, 2, and 3. Above cognitive level 3, the number of interactions was reduced by a significant amount making comparisons difficult and less reliable.

Teachers' Perceptions of Teacher/Student Interaction

Teachers have a sense for knowing which students can be successful in school and which can not. They seem to be able to recognize things about students that will make them do well in school. These things are discovered by the teacher, not only by the quality of work produced by the student, but also by the way in which teachers interact with their students. How teachers perceive and value that interaction can be enlightening in regard to the

ultimate success of a student. The teachers at OK High School were willing to share their perceptions of teacher/student interaction and its value to school success.

One of the first ideas to surface from the interview data was that teachers do not give an equal share of their time to every student. Those students who demand attention, and those who earn it by their interest, receive a larger portion of the very limited time a teacher has to give, according to the teachers at OK High School.

The demand side of this imbalance of attention comes from those students who require more discipline and guidance from the teacher. OK High School teachers say that students who are not involved in the class, who do not care about grades or learning, who are not motivated from home, and who have no respect for the teacher, the school, or themselves, occupy a larger share of their time than most students. One veteran teacher described her frustration with the problem in this manner.

*I spend more time with the ones who really don't care about school. Those are usually the ones that cause trouble, and the ones who really care or who are involved and have some reason to make a grade usually don't cause trouble.

The other end of the spectrum, those students who seem to be able to earn the teachers time, earn it in many ways. The teachers at OK High School believed that they gave an unequal share of time to those students who ask questions and show an interest in learning. Most teachers wanted to give equal time to all students but admitted that they usually were not able to accomplish that.

*I think any teacher devotes more time to those who are more interested, and more involved, than those that are just occupying space one hour a day.

*There are students that you pick out that you want to help and there are some that you don't. It is a hopeless case. It seems like the "good students," you encourage them, make sure they are doing it right. There are always some there that you don't try to work with much.

*I definitely know that I don't give an equal amount of time. Sometimes you give to those kids that demand it, those who want your help.

*Kids that ask questions all the time, those are the ones that you spend a lot of time with.

Even in informal time, teachers talk to those kids who have special attributes. The teachers themselves say that they talk with the high academic student, the athlete, the student in activities, or the outgoing student much more than the student who is less active and involved in school.

*I think I spend a great amount of time talking to those who are more academically smart or those who are outgoing. I have a tendency to visit with them.

*Especially those in the activities. Like in speech I have a tendency to talk to those students who did well in contest, or I have a tendency to talk a little more and say John, Joe, or whoever, you played a good game or that was a good wrestling match.

*If a kid is high in academic bowl and they have done well, I think you congratulate them. Make them feel that whatever it is that they are doing and are achieving is important. All of those extra-curricular activities are important because that makes a well-rounded person in your school.

Another area concerning how teachers perceive teacher/student interaction is that of their relationship with the students. Teachers believe that a good relationship is very important to being a good teacher. Most rate their relationship with students as good

and believe that an open relationship lends itself to a better learning environment. A typical response to questions concerning the teachers' relationship to the students is given.

*I feel like I have an open relationship with my kids. My class is not a class that they just have to come in, sit down, and shut up. They get to express their views and opinions in my class.

As for the value of good rapport, the teachers at OK High School believed that rapport may be the most important aspect of teaching. Students need to feel comfortable, need to be able to talk freely to the teacher, need to trust that the teacher will not embarrass nor abuse them, need to know that the teacher is fair and trustworthy, and need to be able to discuss their problems with the teacher. Examples of how teachers responded in this area are included.

*I just think it's important for a student to feel comfortable in your room. If you are uncomfortable with a teacher or you don't like the way they teach or the way the class is run you usually get a little negative about the whole class and don't learn very much.

*I think rapport is very important because if they know you are going to criticize something they have said or tell them that it is not right or something like that, then they will tend not to say anything at all. If you have good rapport, I think any of them will say what they need to say.

*If they don't like you and respect you or feel comfortable with you, then that doesn't make for a very good classroom environment. I mean if they are afraid to ask a question, or afraid to breathe - I have known teachers like that.

*I think rapport is very important. I think that communication has got to go both ways to be successful in any kind of setting.

*I think it is very important. You have to have an open line of communication so that if that student has a problem they can come and talk to you about the problem in the classroom.

The teachers also reported their ideas about classroom participation. OK High School teachers believed that participation in class was very important in order to be successful in school. Active participation was needed in order to gain full benefit from what was offered in the class. Few students could just sit in class and soak up information and obtain maximum learning. Participation by asking questions and taking part in whatever activity was going on in class was viewed as a big part of the students job in the learning process.

*I think that the person who gets involved, asks you questions, will understand material more than those that just sit back. I think that the student who doesn't ask questions is missing out. I feel like these students need to ask questions to understand.

*With most students I would say that it is very important that they participate, ask questions, participate with each other, interact with each other and not just with the teacher.

*You better get those people participating so that you know they are understanding. If they are sitting back there not participating, you don't know if they are listening or what.

*If a student is participating in a class, as far as asking questions or answering questions or doing the work they are asked to do, then they get more out of it and they learn more.

The last area concerning teachers' perceptions of teacher/student interaction is that of questioning technique. Teachers were asked if they ask some students different types of questions than others and if some students ask different types of questions of the

teacher. The teachers responded that they usually tried to ask students questions that they could answer. They were concerned that they might embarrass the student if they asked a question that was too difficult for them. Consequently, the more difficult questions were typically directed to the better academic students and the easier, less demanding questions were directed to the lower level student, if they were asked a question at all. In a like manner, the better students were seen by the teachers to ask more questions and questions more directly related to the material than the lower students. Some typical responses are provided.

- *I usually try to adjust the questions so that it fits the ability of the student. The main thing a teacher tries to do is to not embarrass a student.
- *I try to ask questions that they will be successful in. So in certain cases I may kind of lead them into the answer, depending on the class and student.
- *I ask the ones that I know can give me the right answer. Then I ask the others who I know are a little bit slower that may have problems thinking. So I kinda give them a little easier question.
- *My questions are different for different students. You have to know the students that you are working with. Some questions could not be asked of some students because they wouldn't have an idea of what you are talking about. So I think you have to always base your questions to the student that you are dealing with.
- *I think your higher level or the students who make better grades ask more questions.
- *The kid that is getting about half of what you say is more reluctant to ask that questions because he is afraid it might sound dumb or he doesn't know enough to ask a question. I would say that probably 90 percent of my students' questions come from the top 20 percent of the class.

The teachers at OK High School felt that teacher/student interaction was very important to school success. They discussed many aspects of teacher/student interaction including who they talk to, what kind of relationship they had with their students, the importance of active participation in class, and which students talk to them.

Correlation of Teacher/Student Interaction to Cultural Capital Ratings

In order to determine quantitatively if some correlation exists between teacher/student interaction and student cultural capital, a numeric value to represent the amount of interaction at each level was needed. This is different than the comparisons of percentages done previously in this chapter. Since the raw numbers do not consider the varying observation times, a ratio of interactions per observation was derived. That data, along with the information used for its calculation is presented in Table VIII.

Table VIII displays the data concerning the cultural capital rating of the students, the number of times there was interaction with those students, the number of times students with a particular rating were observed, and the ratio of interactions to observations for each cultural capital rating.

As previously discussed, the total number of times that interaction took place can not be analyzed as a significant number since the number of students observed was not constant. The

TABLE VIII
TEACHER/STUDENT INTERACTIONS PER OBSERVATIONS

Student Cultural Capital Rating	Number of T/S Interactions	Frequency of Observation	T/S Interactions Observation
0	14	9	1.56
1	37	31	1.19
2	93 (56)	35	2.66 (1.6)
3	25	38	.66
4	70	64	1.09
5	74	42	1.76
6	123	91	1.35
7	112	75	1.49
8	116	60	1.93
9	81	42	1.93
10	211	57	3.70
11	349	75	4.65
12	127	30	4.23

frequency of observation of students with specific CC ratings must be included in order for comparison to take place.

As Table VIII shows, the average interactions per observation was greater for the higher cultural capital ratings than for the lower ratings. This ratio fluctuated for ratings of five below, but was still lower than for most ratings above five.

One obvious exception to this was for cultural capital rating of two. A second set of data numbers were included in Table VIII at this CC rating level to take into account a significant happening that occurred at that level. During a particular class, one student with a cultural capital rating of two was involved in a very extensive dialog with the teacher that lasted for most of the period. During this time, there were 37 interactions attributed to this one student. While that data was included in the totals for that cultural capital rating, it was felt by the researcher that information should be included concerning the effect of that one observation. Without including that one lengthy exchange, the ratio of interaction to CC rating was lowered to 1.6 rather than the 2.66.

Statistical analysis of the data in Table VIII was difficult. The Pearson Product-Moment Correlation formula requires that there be a normal population, that interval measures were used, that the data be linear, and that there be equal variances. The data from Table VIII may not be interval and was possibly only ordinal in nature. Linearity of the data is somewhat questionable as well due to the grouping of values below five and the high value at CC rating

two. The Pearson correlation was calculated at $+0.71$, but should be weighed somewhat lightly due to the lack of fit between the data and the intended use of the Pearson correlation. However, the $+0.71$ value of the correlation would indicate a moderate positive correlation between the cultural capital rating and the amount of teacher/student interaction.

The data does show that for cultural capital ratings of 9, 10, 11, and 12, the amount of teacher student interaction is significantly higher than for the lower CC ratings. When grouped according to Low, Middle, and High ratings as previously done for other tables, Table IX displays the results.

The ratio of interaction to observation increases from 1.35 for the low ratings, to 1.59 for the middle ratings, to 3.76 for the high rating. These figures may be more valuable as comparison numbers than the previous tables and data.

These findings seem to indicate that there was a correlation between the cultural capital rating and the amount of teacher/student interaction. That correlation is most evident for cultural capital ratings above six.

Summary

The first set of findings presented in this chapter were concerning cultural capital attributes. These attributes were determined using both the review of literature and teacher interviews at OK High School.

TABLE IX
TEACHER/STUDENT INTERACTIONS BY GROUPINGS

CC Rating	#Interactions	#Observations	Interactions/Observations
Low 0-4	239	177	1.35
Middle 5-8	425	268	1.59
High 9-12	768	204	3.76

Social status was found to be a cultural capital attribute at OK High School both from the literature and from the teachers. It was found that social status affects how teachers relate to students and how students relate to each other.

The second factor that determines the cultural capital of a student was the family income level. Both past literature and teacher interviews indicated that family income level can have a definite impact on success in school and on teacher/student interaction.

The third cultural capital attribute was found to be the activities of the student. The teachers of OK High School overwhelmingly believed that participation in activities was very important to school success. Many believed that it was perhaps the most important thing that a student could do to help them be successful in school. The literature concerning extra-curricular activities was less extensive, but did show that activities are a part of status attainment, curricular tracking, and reproduction of social classes. These things are all factors in the ultimate success of students in school.

Past academic achievement was also found to be important in the success of students in school. Students who performed well in the past were seen to be better students, more focused on academics, and more likely to be "good kids." Teachers recognize good students and value their past academic accomplishments. This fourth item, the academic aspects of the student, was found to be a recognizable cultural capital attribute.

The fifth item of the student cultural capital rating sheet was that of race or religion. These items were found to be important to the amount of cultural capital a student possessed in the literature more than from the teachers. Race has been addressed extensively in the literature and has been shown to be a factor in how teachers relate to students and ultimately in the success of the student. Race at OK High School was less important due to the lack of cultural diversity at this school; however, some differences were recognized by the teachers in the American Indian population of the school. The religion aspect of this attribute was found to be important to the teachers in that they believed that students with religious backgrounds behaved better and were more inclined to have respect and good work ethics than those students who had no religious background. The lack of unanimous support for both race and religion from the teachers and the literature led the researcher to include race and religion as a cultural capital attribute, but with less value than the other attributes identified.

The last item found to be important in determining the cultural capital aspects of a student was that of attitude. Both the literature and the teachers identified this as a very important attribute for students who hope to be successful in school. Teachers valued a good attitude as perhaps the most important part of academic success. They felt that students who are ready to learn, have regular attendance, come to class with the required materials, have good work ethics, and are dependable, are much more likely to be successful in school. Teachers believed that they

spent more time talking to students who had the attributes indicating a good attitude.

Once the cultural capital attributes had been identified, the students at OK High School were rated using those cultural capital attributes. It was found that there were more students with cultural capital ratings in the middle ranges than at either extreme. Few students had perfect 12 ratings and few had 0 ratings. Of the 186 students rated, the mean, median, and mode were all 6. The standard deviation was 3.19, which considered with the other measures of central tendency, indicated a near normal distribution.

Findings concerning the quantity of teacher/student interaction were also presented. The data presented was gathered using a modified version of the Flanders Interaction Method. This modified version allowed for the interaction to be attributed to particular students within the classroom.

Students were grouped according to low (0-4), middle (5-8), and high (9-12) cultural capital ratings in order to make comparisons of the amount of teacher/student interaction at each level. At each level of cultural capital grouping, i.e. low, middle, and high, the number of students observed for each teacher, the percent of the total students for each teacher, the number of interactions observed, and the percent of the interactions for each teacher, were calculated. It was found that the percent of interaction compared to the percent of students with that rating was not the same. In the low cultural capital rating, all teachers except three had significantly lower percentages of interaction than the percent of

students in that group. In the middle grouping, eleven of the fifteen also had lower interaction percentages than the percent of students. At the high cultural capital grouping the opposite was true. The percent of the total interaction for each teacher, without exception, was higher than the percent of students at that level.

When considering the totals for all teachers, the same theme held true; i.e., lower interaction percentages than students for the low and middle cultural capital ratings and higher interaction percentages than students at the high cultural capital ratings. Twenty-nine percent of the students observed were in the low cultural capital rating group while only 18% of the total interaction took place with these students. At the middle range there were 40% of the students observed but only 30% of the interaction took place. The high cultural capital rating group consisted of 31% of the total observed students while 52% of the communication occurred with this group.

This data can be summarized very simply. The students with low and middle cultural capital ratings were involved in a lower percent of the interaction with the teachers than the students with the high cultural capital ratings.

The next set of findings related to the cognitive level of the teacher/student interaction as an indicator of the quality of interaction. That quality was to be determined by using Bloom's Taxonomy of Education Objectives to determine the level of the communication between the teacher and the student. These levels of

Bloom's cognitive domain consist of: knowledge, comprehension, application, analysis, synthesis, and evaluation. These levels were labeled using numbers one through six in order to facilitate data compilation.

It was found that the greatest amount of interaction occurred at Level 1 (knowledge). In fact more interaction occurred at Level 1 than at any of the other levels combined. Levels 2 and 3 also showed more interaction than any higher level. The amount of interaction above Level 3 was greatly reduced and thus the data produced at these levels (Levels 4, 5, and 6) was too limited for comparison.

Comparisons of the amount of interaction at each level of Bloom's taxonomy were made to the cultural capital ratings of the students involved in the communication. It was found that at each of the levels of the cognitive domain, the average number of interactions increased as the cultural capital rating increased. The largest increases occurred at the lower cognitive levels of knowledge and comprehension; however, the other levels also showed moderate to slight increases when progressing from the low cultural capital ratings to the middle ratings and on to the high ratings.

Teacher perceptions concerning the interaction in their classrooms were presented. Teachers felt that they did not give an equal amount of time to each student and that they spent more time talking to the more outgoing, active student. Classroom participation was deemed very important by the teachers and their

classes reflected that importance. In addition, the relationship that the teachers had with their students was very important.

The findings presented were concerned with correlating the amount of teacher/student interaction with the cultural capital rating of the students involved in that interaction. The average number of interactions per observation for each level of cultural capital rating were calculated and compared. It was found that for cultural capital ratings above five, the ratio of interactions per observation increased from 1.35 to 4.65. Below five the ratios fluctuated somewhat and did not show any steady increase.

The Pearson Correlation Formula was used to determine if there was a correlation between the cultural capital rating and the amount of teacher/student interaction. That was found to yield a +.71 value, which would indicate a moderate positive correlation. It was pointed out that the data of this study did not exactly match the criteria for use of the Pearson Correlation Formula, therefore this value should not be considered as absolutely valid.

When grouped according to low, middle, and high cultural capital ratings, the data revealed more pronounced information. The ratio of interactions to observations increased from 1.35 in the low range to 1.59 in the middle range to 3.76 in the high range. This showed an increase as the cultural capital rating increased.

Chapter V will present an overall summary of the study, together with the conclusions, recommendations and reflections of the researcher.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND REFLECTIONS

The final chapter of this study is divided into four sections. The problem, the review of literature, the design of the study, the purpose, and the findings are summarized in the first section. The conclusions drawn, the recommendations for further study, and the reflections of the researcher are reported in the final three sections.

Summary

Past research has addressed student success in relation to cultural capital attributes such as socioeconomic standing and ethnic background. Past research has also addressed the importance of teacher/student interaction to success in school. However, research has been needed to examine what effect cultural capital might have on teacher/student interaction in order to shed light on why some students receive more attention than others.

The review of literature focused on information that related to either cultural capital or teacher/student interaction. The review was limited to the literature pertaining to the definitions of cultural capital, status attainment in schools, the use of cultural capital in schools, teacher/student relations and

communication, reproduction of social classes in education, and the need for study on cultural capital.

Within each of these areas, cultural capital attributes were identified and discussed in relation to school success. Teacher/student relations and communication were also identified as important factors in school achievement. In addition, status attainment and reproduction of social classes were found to be a part of the continuing cycle of class distinction.

Included in the review of literature were two books upon which the theoretical frame of the study was based. The first of those was Flanders' Analyzing Teaching Behaviors. This book provided a method of measuring the teacher/student interaction in the classroom including an observation instrument and methodology for the analysis of data gathered from the observations. Flanders' theories support the concept of teacher/student interaction being a significant factor in school success.

The second part of the theoretical frame was from Bloom's Taxonomy of Educational Objectives. This book was used for determining the quality of teacher/student interaction based on the cognitive level of that interaction. Bloom's taxonomy divides the cognitive domain into the six categories of knowledge, comprehension, application, analysis, synthesis, and evaluation. These levels progress from simple recall of facts to judgments about the value of material methods. Bloom's theories propose that greater understanding results from communication at the higher levels of the domain.

The purpose of the study was to determine a method for measuring the amount of cultural capital each student possessed and to determine the extent to which students with higher cultural capital ratings receive more attention from their teachers than students with lower cultural capital ratings. To accomplish this purpose a qualitative research design was employed to allow for this multi-variable view of cultural capital.

The cultural capital rating form was developed using the cultural capital attributes identified from the literature review along with the attributes identified from the teachers themselves. The information derived from the teachers was gathered using the long interview, a qualitative methodology. These factors were then combined into a rating instrument that allowed for a student to receive points for possessing certain traits.

A modified Flanders Interaction Analysis method was used to gather information concerning teacher/student interaction. This interaction instrument was further modified to allow for classification of the interaction into one of Bloom's levels of the cognitive domain.

Comparisons of the number of students at each level of cultural capital rating to the amount of communication for those students were then made. To determine the quality of interaction, comparisons were made between the number of students at each cultural capital rating and the level of communication based on Bloom's taxonomy.

The purpose of this study was two fold: (1) to determine a method for measuring the amount of cultural capital each student possessed and (2) to determine if students with higher cultural capital ratings received more attention from their teachers than students with lower cultural capital ratings.

Included in the definition of terms for the study was the definition of cultural capital. This definition was very important since the literature review revealed many different definitions. The definition of cultural capital as used in this study was: The quantity of cultural assets that a student possesses that are recognizable to his/her teachers.

To provide boundaries for the study, six research questions were developed: (1) What are the significant factors which determine the amount of cultural capital a student possesses? (2) How much teacher/student interaction takes place between the teachers and students with varying amounts of cultural capital as measured by the Flanders Interaction Analysis? (3) What is the quality of teacher/student interaction based on Bloom's taxonomy of cognitive domain for students with varying amounts of cultural capital? (4) What cultural capital factors do teachers recognize and value in their students? (5) What are the differences, if any, between the observed teacher/student interaction and the teacher' perceptions of that teacher/student interaction? (6) How does the teacher/student interaction vary according to cultural capital ratings?

Chapter IV of this study presented the findings. Those findings were divided into six categories: cultural capital attributes, cultural capital ratings, quantity of teacher/ student interaction, cognitive level of teacher/student interaction, teachers' perceptions of teacher/student interaction, and correlation of teacher/student interaction to cultural capital ratings. A summary of those findings is presented here.

Cultural Capital Attributes

The attributes that make up the total cultural capital of the students at OK High School must be a combination of those attributes found in the literature and those attributes that the teachers in the school recognize and value. Both aspects were used in developing the cultural capital rating form. The items from the form are presented here as an abbreviated presentation of the findings concerning cultural capital attributes:

- 1) Social status of the student's family.
 - a. The parents/guardians of the student are socially active and recognized as active members of the community.
 - b. The parents/guardians of the student are officers or leaders in local community or professional organizations.
- 2) Family income level.
 - a. The income of the family is such that the family does not qualify for free or reduced meals.
 - b. The family income level is well above the average for this community.

- 3) Activities of the student.
 - a. The student participates in one or more school club, organization, or sport.
 - b. The student is an officer or leader of a club or organization or is a starter on a team.
- 4) Academic aspects of the student.
 - a. The student had no D's or F's during the last school year.
 - b. The student was on the Principal's or Superintendent's honor roll the previous semester.
- 5) Race/Religion.
 - a. The student is not a member of a minority.
 - b. The student is a member of a church and attends often.
- 6) Attitude.
 - a. The student has regular attendance and is punctual.
 - b. The student comes to class with required materials and with a positive attitude.

Cultural Capital Ratings

Once the factors that make up the cultural capital of the students at OK High School were identified, each student was rated using the rating form. Each of the attributes was worth two points divided into two sub-sections worth one point each. These sub-sections were used to differentiate the degree to which a student possessed a particular attribute. A student rated as a "12" would have all six attributes and with a high degree.

The distribution of students with particular cultural capital ratings was found to be near normal. Few students were rated with zero cultural capital and few were rated with 12 cultural capital. Fifty-nine of the students had ratings in the lower third (0-4), 78 had ratings in the middle third (5-8), and 49 students were rated in the upper third (9-12). The mean, median, and mode of the ratings were all six, while the standard deviation was 3.19.

Quantity of Teacher/Student

Interaction

The quantity of teacher/student interaction had meaning for this study only when the number of students in a class with a particular rating was known. This called for more than just the number of times a teacher talked to a student. That quantity of teacher/student interaction was best presented using percentages, that is, the percent of students in a teacher's class with a particular cultural capital rating as compared to the percent of interaction with those students. In addition, grouping the ratings into low, middle, and high allowed for easier comparisons. The findings concerning the percentages for each grouping are summarized in the following statements:

1. Students with low (0-4) cultural capital ratings made up 29% of the students observed while only 18% of the teacher/student interaction took place with these students.
2. Students with middle (5-8) cultural capital ratings made up 40% of the students observed while their percent of interaction was 30%.

3. The students in the high (9-12) cultural capital group represented 31% of the students observed but 52% of the interaction was with these students.
4. The differences in the percent of students observed and the percent of interaction of those students for each grouping was: low, -11%; middle, -10%; and high +21%.

Cognitive Level of Teacher/Student

Interaction

The cognitive level of the interaction was divided using Bloom's cognitive domain levels. Each level was assigned a number rather than using Bloom's terms. Again when grouped by cultural capital ratings of low, middle, and high, the findings can be summarized as follows:

1. The ratio of interactions to students observed increased when going from low to middle to high ratings for each of the levels of Bloom's taxonomy three or below.
2. For Bloom's levels above three, no decreases occurred but a pronounced reduction in the number of interactions made the data somewhat invalid.
3. More interaction above the knowledge level takes place with students of cultural capital ratings above eight than with all other students combined.

Teachers' Perceptions of Teacher/Student

Interaction

The teachers at OK High School were very willing to talk about their perceptions concerning teacher/student interaction and teacher/student relationships. They discussed many aspects related to interaction of which the major findings are summarized below:

1. Teachers do not give an equal share of their time to every student. The students who demand attention and the ones who earn it through genuine interest in learning get larger portions than the rest.
2. Teachers talk to the high academic student, the athlete, the student in activities, or the outgoing student much more than other kids.
3. Most teachers believe that they have a good working relationship with their students and that relationship makes for a better learning environment.
4. Teachers believe that good rapport may be the most important aspect of teaching.
5. Active participation was seen to be very important to academic success by the teachers of OK High School.
6. Teachers typically ask students questions that they believe the student can answer. The need to avoid embarrassing the student was seen as more important than challenging the student by asking them harder questions.

Correlation of Teacher/Student Interaction
to Cultural Capital Ratings

Measures of correlation call for numeric values to compare. For this study those numeric values were the cultural capital ratings and the ratio of interactions per observations at each rating level.

When grouped as before into low, middle, and high ratings, the ratio of interactions to observations increased when progressing from low to middle to high.

The Pearson Correlation value was $+0.71$, indicating a moderate positive correlation. This value may be invalid due to the ordinal

nature of the data and the possible lack of linearity below the cultural capital rating of five.

The findings of this section can be simply stated by saying that there was a correlation between cultural capital ratings and teacher/student interaction and that correlation was most evident for cultural capital ratings above six.

Conclusions

The conclusions were drawn from an analysis of the data from the study and address the research questions posed for the study.

Research question #1 stated: What are the significant factors which determine the amount of cultural capital a student possesses?

It was found that the social status of the family, the family income level, the activities of the student, the past academic record of the student, the student's race and religious background, and the student's attitude were the factors which determine the amount of cultural capital the students at OK High School possess.

These factors were identified by the teachers during interviews with the researcher as important factors in school success. Researchers in the field also identified these factors as attributed important to academic achievement.

Research question #2 stated: What cultural capital factors do teachers recognize and value in their students?

Teachers recognize and value a good attitude in their students above all. They also value dependability, reliability, good work

habits, and a pleasant personality. In addition, teachers believe that activities are very important to school success and that students who do not participate are more likely to drop out.

Each of these things were identified by the teachers at OK High School during the interview with the researcher.

Research question #3 stated: How much teacher/student interaction takes place between teachers and students with varying amounts of cultural capital as measured by the Flanders' Interaction Analysis?

The answer to this question is very straight forward. Classroom teacher/student interaction is higher with students who have high cultural capital ratings. Conversely, the amount of interaction is less for those students who are lacking in cultural capital attributes.

These conclusions are based on the ratios of interactions per observation for each of the cultural capital rating groups. As the cultural capital rating went from low, to middle, to high, the amount of interaction increased.

The fourth research question stated: What is the quality of teacher/student interaction based on Bloom's taxonomy of cognitive domain for students with varying amounts of cultural capital?

The answer to this question is that the cognitive level of the communication between a teacher and a student is higher when the student has more cultural capital. Higher cognitive level indicates a higher quality of interaction.

This was determined from the data comparing interaction ratios from the various cultural capital ratings at each cognitive level. The ratio of interactions to number of observations at each cognitive level increased for each cultural capital grouping. This was especially evident for cognitive levels three or below. Above level three, no decreases were found but the sparsity of interactions above this level leave the findings suspect.

The fifth research question stated: What are the differences, if any, between the observed teacher/student interaction and the teachers' perceptions of that teacher/student interaction?

This question was answered by examining the transcripts of the interviews and comparing them to the data from the classroom observations. In short, teachers know about the interaction in their classrooms and their perceptions are not unlike what was observed by the researcher.

They discussed how they do not always give equal time to each student, and they understood what it was that caused this difference, cultural capital. That was exactly what was observed.

The final research question stated: How does the teacher/student interaction vary according to the cultural capital ratings?

The amount of teacher/student interaction varies directly with the amount of cultural capital a student possesses. This was evidenced by the moderate positive correlation as measured by the Pearson Correlation Formula. More cultural capital means more attention from the teacher.

What implications might these conclusions have for practicing administrators and teachers? This study should help teachers to realize that they are not always fair in distributing their time and attention. This study should also help them to understand that one of the major reasons for that imbalance of attention might be due to the cultural capital assets of the students. It would seem obvious that teachers and administrators armed with this understanding would try to do something to tip the balance in favor of those who are not receiving their fair share of attention. This might be done by working from both sides of the teachers/student interaction issue.

On one side, the teachers could develop methods to insure that every student is asked questions, is expected to participate, is included in discussions, is talked to during informal times, and is not allowed to become anonymous. Administrators could make teacher/student interaction a bigger part of the teachers' job responsibility through teacher training, evaluation, and overall expectations. Through heightened awareness of bias due to cultural capital differences, teachers and administrators could reduce the frequency of its occurrence.

On the other side, teachers and administrators could develop programs to educate students as to the value of cultural capital. Many of the attributes could not be changed by the individual; however, attributes such as attitude and participation in activities could be altered by the students who wish to build their cultural assets. In addition, students could be made aware of the things

that teachers value in students and encourage them to develop those habits and behaviors.

The student side of the teacher/student interaction issue could also be improved by the parents. A large portion of the cultural capital assets identified in this study were directly attributed to the parents. Becoming involved in both community and school activities could serve to enhance the parents' standing and consequently the cultural capital of their children.

In short, based on the knowledge that cultural capital can be a major factor in the success of school children, teachers and administrators could do many things to alter the current pattern of unequal treatment.

Recommendations for Further Study

One important characteristic of a research study is the questions that it generates. "What ifs?" seem to surface with every conclusion that is drawn from a study. The following recommendations are a list of these "what ifs?" could serve to guide future investigation.

1. What if cultural capital could be consciously acquired? Could students improve their academic achievement by simply becoming more involved in activities or by displaying a more positive attitude to the teachers?
2. What if teachers chose to invert the amount of time spent talking to high students and low students? Would this drastically

alter the success of students? Would it cause high students to become low?

3. What if the cultural capital attributes that teachers recognize and value are different? Does that mean that a student will be more successful in one class than in another?

4. What if OK High School is not typical? Does that mean that a study of other schools would yield different results?

5. What if students bought teacher attention with money rather than cultural capital? Would these students become more successful?

6. What if students were grouped into classes according to their cultural capital? How would this affect the teacher/student interaction?

Answers to these questions could contribute to greater understanding of how students become successful in our schools. While these questions are not all inclusive, they present some interesting points that were left unanswered by this study. Further research concerning cultural capital and its importance in the success or failure of our youth would seem to be worthwhile.

Reflections

My reflections concerning this research study are centered around three things: (1) teachers know a lot about what it takes to be successful in school; (2) it is almost impossible to give someone something that they don't want; and (3) the idea that everyone can get a good education in America is a myth.

No one knows more about kids and schools than teachers. They are in the classrooms every day working with kids and seeing what makes some become successful and what makes others miss out. They work hard and try over and over again to reach those kids that are seemingly unreachable. When you ask teachers what makes some kids do well in school and some do very poorly, they can all tell you about the things in this research study. What they don't tell you is that sometimes the teachers give up.

Sometimes teachers get tired of trying to give something to someone that isn't wanted. This happens when a student does not respond to appeals from the teacher to do the work, to get involved in the class, or to pay attention. In effect, the student is telling the teacher, "Not only am I unwilling to buy anything from you, I don't even want what you have to give." When this happens often enough, the teacher stops interacting with the student to facilitate learning and limits interaction with the student to only that mandated through a sense of obligation. This type of interaction is much less frequent and take place only on a very superficial level.

This paradox of trying to give students an education that they don't want may be the result of factors beyond the control of the student. The truth may be that the student has no choice in the matter. Attitudes are formed throughout life and are developed from the things that happen to individuals. What happens to some kids is much different than what happens to others. Most of the cultural capital attributes discussed in this study are valued by those of us

in control of the schools. Some kids simply have not had the happenings in their lives that would enable them to value the same attributes.

This leads to the idea that a good education is provided for everyone in America. If an education depends on cultural capital, and cultural capital is based on someone else's values, how can it be said that everyone has an opportunity for a good education? The opportunity for quality education for every child in America is a dream that may only be a myth for those students whose cultural capital pocketbook is empty.

The real challenge that this study has brought to the forefront is how to level the playing field. How can educators give every student cultural capital? Or, on the other hand, how can what is valued as cultural capital be changed so that everyone already has it? It is my hope that by identifying some of the things that cause differential treatment we can begin to address these greater concerns.

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APPENDIXES

APPENDIX A

OBSERVATION INSTRUCTION

Tally Marks	Category	Student Codes
	Acc/Feelings	
	1	
	Praise	
	2	
	Acc/Idea	
	3	
	Questions	
	4.1	
	4.2	
T	4.3	
E	4.4	
A	4.5	
C	4.6	
H		
E		
R		
	Lecture	
	5.1	
T	5.2	
A	5.3	
L		
K		
	5.4	
	5.5	
	5.6	
	Directions	
	6	
	Crit/Auth	
	7	
	Other Non-Acd	
	St/Response	
	8.1	
	8.2	
	8.3	
	8.4	
	8.5	
	8.6	
	St/Initiation	
S	9.1	
T	9.2	
U	9.3	
D	9.4	
E	9.5	
N	9.6	
T		
	Silence	
	10	
T		
A		
L		
K		
	Other Non-Acd	

1. For teacher talk directed to a particular student, use the student code.
2. For teacher talk directed to the class, use only a tally mark.
3. For all student talk, use the student code.
4. Flanders categories 4, 5, 8 and 9 are subdivided using Bloom's cognitive domain levels.
5. Both teacher talk and student talk has an additional category for non-academic communication called "other."

APPENDIX B

CULTURAL CAPITAL RATING SHEET

Student Name _____

I.D. Number _____

Place a "+1" in the blank beside each factor that the student possesses.
Place a "0" in the blank if the student does not possess that factor.

- 1) Social status of student's family.
 - a. The parents/guardians of the student are socially active and recognized as active members of the community. _____
 - b. The parents/guardians of the student are officers or leaders in local community or professional organizations. _____
- 2) Family income level.
 - a. The income of the family is such that the family does not qualify for free or reduced meals. _____
 - b. The family income level is well above the average for this community. _____
- 3) Activities of the student.
 - a. The student participates in one or more school club, organization, or sport. _____
 - b. The student is an officer or leader of a club or organization or is a starter on a team. _____
- 4) Academic aspects of the student.
 - a. The student had no D's or F's during the last school year. _____
 - b. The student was on the Principal's or Superintendent's honor roll the previous semester. _____
- 5) Race/Religion.
 - a. The student is not a member or a minority. _____
 - b. The student is a member of a church and attends often. _____
- 6) Attitude.
 - a. The student has regular attendance and is punctual. _____
 - b. The student comes to class with required materials and with a positive attitude. _____

TOTAL _____

(Maximum value of cultural capital = 12 points)

APPENDIX C

FLANDERS CATEGORIES FOR INTERACTION ANALYSIS

TEACHER TALK	INDIRECT INFLUENCE	<p>1.* ACCEPTS FEELING: accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting or recalling feelings are included.</p> <p>2.* PRAISES OR ENCOURAGES: praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying, "um hm?" or "go on" are included.</p> <p>3.* ACCEPTS OR USES IDEAS OF STUDENT: clarifying, building, or developing ideas suggested by a student. As a teacher brings more of his own ideas into play, shift to category five.</p> <p>4.* ASKS QUESTIONS: asking a question about content or procedure with the intent that a student answer.</p>
	DIRECT INFLUENCE	<p>5.* LECTURING: giving facts or opinions about content or procedure; expressing his own ideas, asking rhetorical questions.</p> <p>6.* GIVING DIRECTIONS: directions, commands, or orders to which a student is expected to comply.</p> <p>7.* CRITICIZING OR JUSTIFYING AUTHORITY: statements intended to change student behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference</p>
STUDENT TALK		<p>8.* STUDENT TALK--RESPONSE: a student makes a predictable response to teacher. Teacher initiates the contact or solicits student statement and sets limits to what the student says.</p> <p>9.* STUDENT TALK--INITIATION: talk by students which they initiate. Unpredictable statements in response to teacher. Shift from 8 to 9 as student introduces own ideas.</p>
		<p>10.* SILENCE OR CONFUSION: pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.</p>

*There is NO scale implied by these numbers. Each number is classificatory, it designates a particular kind of communication event. To write these numbers down during observation is to enumerate, not to judge a position on a scale.

APPENDIX D

EXAMPLE OF OBSERVATION FORM

APPENDIX E

TEACHER INTERVIEW QUESTIONS

1. HOW WOULD YOU DESCRIBE YOUR RELATIONSHIP WITH THE STUDENTS IN YOUR SCHOOL?

- a) What % of a regular class period is spent with you talking and the students listening? Why?
- b) What type of questions do you ask and are they different for different students?
- c) What type of questions do students ask you and is it different for different students?
- d) How important is rapport with your students? Why?
- e) Which students require the greatest amount of discipline and guidance from you? Why?
- f) Do you encourage students to interrupt you when you are talking if they do not understand something? Why?

2. HOW WOULD YOU DESCRIBE YOUR STUDENTS' PERSONAL CHARACTERISTICS?

- a) How important is the social status of a student's family to success in school? Why?
- b) Does the income level of the family have any effect on the academic success of a student? Why?
- c) Does the racial background of a student have an effect on academic achievement? Why?

3. WHAT KIND OF THINGS DO YOU THINK HELP A STUDENT TO BE SUCCESSFUL IN SCHOOL?

- a) Do you think that knowing the past academic record of your students helps you as a teacher?
- b) Does it have an effect on the student?
- c) Does a religious background have any effect on academic achievement?
- d) How important is participation in extra-curricular activities to school success?
- e) Which activities do you feel are the most important?
- f) Have you ever noticed yourself talking to a student more after they have been in or to an extra-curricular event? Why do you think you did that?

4. HOW IMPORTANT IS CLASS PARTICIPATION TO SCHOOL SUCCESS?
 - a) Which students ask the greatest number of questions?
 - b) Do you think that you give an equal amount of time to each student? Why?
 - c) Does participation have to be active?
5. HOW WOULD YOU DESCRIBE THE IDEAL STUDENT?
 - a) What qualities do you appreciate in students?
 - b) Which students do you spend the greatest amount of time talking to?
 - c) Which students do you talk to during informal times?

APPENDIX F

SUMMARY TABLE OF TEACHER/STUDENT
INTERACTIONS

TABLE IX
TEACHER/STUDENT INTERACTION SUMMARIES ALL GRADED 9-12

	0	1	2	3	4	5	6	7	8	9	10	11	12	Total
# Students	4	9	15	13	18	14	26	22	16	12	13	17	7	186
# Observations	9	31	35	38	64	42	91	75	60	42	57	75	30	---
1	0	0	1	0	0	0	0	1	2	0	0	1	0	5
2	0	0	1	0	2	2	1	1	1	0	4	5	0	17
3	0	0	4	0	1	2	1	2	3	2	4	14	4	37
4.1	1	6	8	2	13	10	18	26	18	13	40	52	19	226
4.2	0	0	0	0	0	0	4	3	6	6	4	9	4	36
4.3	0	0	0	0	0	0	2	0	1	0	1	1	0	5
4.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.5	0	0	0	0	0	0	0	0	0	0	0	0	1	1
4.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.1	4	2	8	2	6	7	11	4	8	3	8	21	6	90
5.2	0	0	1	0	0	1	4	1	1	0	4	2	2	16
5.3	1	0	1	0	0	0	2	0	0	0	1	1	1	7
5.4	0	0	0	0	1	0	0	0	0	0	0	1	0	2
5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	2	2	0	0	4	1	1	2	1	4	2	19
7	3	2	3	2	3	3	1	3	8	0	0	2	0	30
Other	0	1	2	1	5	5	5	5	6	3	14	23	7	77
8.1	0	10	49	5	19	17	32	34	30	38	92	109	36	471
8.2	0	1	0	2	1	2	10	11	7	7	16	29	19	105
8.3	0	0	0	1	2	0	3	0	3	2	2	7	2	22
9.4	0	0	0	0	0	0	0	0	0	0	0	2	1	3
8.5	0	0	0	0	0	1	0	0	0	0	0	2	1	4
8.6	0	1	0	0	0	1	1	0	0	0	0	0	0	3
9.1	4	9	8	7	13	15	14	16	16	4	10	42	13	171
9.2	0	1	2	0	0	0	3	2	3	1	1	5	0	18
9.3	1	1	1	0	0	2	2	0	0	0	1	1	1	10
9.4	0	1	0	0	0	1	1	0	0	0	0	1	0	4
9.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	2	2	1	4	5	4	2	2	0	8	15	8	53
Total	14	37	93	25	70	74	123	112	116	81	211	349	127	1432
Ratio	1.56	1.19	2.66	.66	1.09	1.76	1.35	1.49	1.93	1.93	3.70	4.65	4.23	---

APPENDIX G

INSTITUTIONAL REVIEW BOARD (IRB) FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH

Date: 04-05-93

IRB#: ED-93-077

Proposal Title: CULTURAL CAPTIAL AND TEACHER/STUDENT INTERACTION

Principal Investigator(s): Ed Harris, Emet Callaway

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

APPROVAL STATUS SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL. ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Signature:

Maria S. Tilley
Chair of Institutional Review Board

Date: April 23, 1993

VITA

Emet Wayne Callaway

Candidate for the Degree of

Doctor of Education

Thesis: CULTURAL CAPITAL AND TEACHER/STUDENT INTERACTION

Major Field: Educational Administration

Biographical:

Personal Data: Born in Guymon, Oklahoma, November 21, 1952,
the son of Emet and Dortha Callaway.

Education: Graduated from Texhoma High School, Texhoma,
Oklahoma in May, 1971; received Bachelor of Science degree
from Oklahoma Panhandle State University, Goodwell,
Oklahoma in May, 1975; received Master of Arts degree from
Western State College of Colorado, Gunnison, Colorado in
May, 1980; completed requirements for the Doctor of
Education degree at Oklahoma State University, Stillwater,
Oklahoma in May, 1994.

Professional Experience: Nine years teaching math and coaching
football, basketball and track in Oklahoma at the
secondary level; ten years experience in Oklahoma as a
secondary principal.