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# EQUALITY OF EDUCATIONAL OPPORTUNITY

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## *Abstract*

This chapter discusses recent empirical work in the sociology of education which emerged from a widespread concern about equality of educational opportunity. Four bodies of empirical work can be linked to this concern: status attainment studies, school effects studies, research on the organization of schools and instruction, and research on school and classroom processes. The chapter discusses how these bodies of research are linked to an interest in social equality and how they have developed beyond that initial concern. While some comparative, cross-national and cross-cultural research exists in these traditions, this review is limited to work conducted in the United States.

## INTRODUCTION

The past 30 years have witnessed remarkable developments in the sociology of education. Indeed, this period has exhibited such growth that the field itself seems to have emerged as a well-defined discipline during this time. This is not to deny, of course, the important contributions to sociology of education that were made in the nineteenth and early twentieth centuries, particularly the works of Weber, Durkheim, Waller, Mannheim, and Parsons. Nor is it to undervalue the considerable research achievements of sociologists in the 1950s and 1960s. These early studies made possible the recent, rapid growth in the area. But a critical mass of theory and research is needed before a distinctive body of knowledge can be identified and the assumptions, propositions, and boundaries of the discipline recognized. Only in the recent past has this critical mass of knowledge in the sociology of education been attained.

The rapid growth of sociology of education in the United States over the past three decades can be demonstrated from a number of sources. Membership in the American Sociological Association's section on Sociology of Education increased to 400 members by September 1987. This reverses a downward trend evident in most of the ASA sections since the late 1970s when the academic job market tightened and undergraduate and graduate enrollment in sociology decreased. The number of subscriptions and manuscript submissions to the American Sociological Association's specialty journal, *Sociology of Education*, has also increased over the past few years. Several new books and edited volumes in sociology of education have recently been published. Articles on topics in the area appear with increased frequency in mainline sociology journals as well as in education journals.

Of course, evidence of the growth of the field that is based on the publication process lags behind actual research achievements. It can be argued that the period of most intense research in sociology of education was the 1960s and 1970s, with slower progress occurring during the 1980s. Certainly, the sixties was a time of remarkable growth in both theoretical and empirical work. The 1970s were characterized more by theoretical and methodological diversification. The achievements of the 1980s are difficult to assess since all the evidence is not yet available, but they appear to be more integrative and interpretive.

The major theoretical developments in sociology of education reflect theoretical advances in the field as a whole. The considerable breadth of these perspectives, ranging from Marxist, phenomenological approaches to structural functionalism, is outlined in Karabel & Halsey (1977). Empirical research reflects these theoretical developments and employs improved methodological techniques and more sophisticated statistical models for the analysis of empirical data, as well as technological advances that facilitate the collection and analysis of social science data. Empirical work, in turn, has promoted new theoretical developments.

This chapter presents an overview of a number of important areas in the sociology of education, namely, the bodies of research related to the concept of social equality—an area of widespread interest. In doing so, the chapter ignores other important lines of work—for example, the growing body of research that analyzes educational structures and includes the development of national systems (e.g. Archer 1984, Meyer & Hannan 1979, Robinson 1986) and related work on higher education. There is also research on the effects of education as an institution (e.g. Meyer 1977) and on organizational processes in schools (e.g. Bidwell & Kasarda 1985, March & Olsen 1976). However, to do justice to a discussion of developments in these and other areas would require separate reviews.

## EQUALITY OF EDUCATIONAL OPPORTUNITY

Jencks et al (1972), Wexler (1976), and others have argued that the central research question in the sociology of education since World War II has been the relationship between schooling and social inequality. Researchers have been deeply concerned with the factors that prevent students from attaining academic success and subsequent occupational status by merit alone. This emphasis, Wexler claims, stems from the pervasive influence of Progressivism at the start of the twentieth century—the social and intellectual movement that advocated public education as one of the means to social progress.

Considerable evidence supports the argument that a concern about social inequality has guided much of the empirical research in sociology of education that was conducted in the past three decades. A distinction must be made here between the concept of equality of educational opportunity as it refers to equalizing individuals' access to educational resources and equality of opportunity in reference to educational outcomes.

The concern about equal access to educational resources reflects the belief that a norm of fairness should govern the competition for society's resources. Some intellectuals and social critics see competition as the avenue to upward mobility. But for the competition to be fair and a society truly meritocratic, equal access to the mechanisms that ensure success must be provided. This requires that equal opportunities to compete be available to all persons regardless of their social origin or other ascribed characteristics. In particular, it means that quality education must be accessible to all students.

Concern with equality of educational outcomes stems from interest in the equal distribution of societal rewards, including power, status, and wealth, and the link between education and one's position in the social stratification system. Those who believe that fair competition is not viable, or perhaps possible, because ascribed characteristics disadvantage certain persons, turn to the distribution of societal resources and rewards as a means to address social inequality. The civil rights movement and the women's movement of the 1960s influenced and were influenced by this attitude. Assuming inequality of inputs to the educational system, the relevant question for sociologists of education, then, becomes how can education change or modify these inputs to produce a more equal distribution of outputs such as academic achievement, educational aspirations and attainment, and in the long run, socioeconomic status and income?

Taking an extreme position, some critics question the goals both of attaining social equality through a meritocracy and of reaching equality through the equal distribution of society's rewards. This leads to questions about the ability of the system of public education in this country to eradicate unequal-

ity. The influence of more radical thinkers (e.g. Bowles & Gintis 1976, Katz 1971, Illich 1983), combined with a lack of consensus among researchers on the extent to which schools transmit social inequality, and a general dissatisfaction with the ability of schools to perform as expected or desired, have led some sociologists of education to focus on the experience of schooling rather than on the way schooling facilitates the attainment of later goals. This viewpoint is reflected in some of the more recent studies in the sociology of education on the way students and the curriculum are organized within the school for instructional purposes and on the cognitive and social psychological processes that occur during the schooling experience.

Concern about the experience of schooling and its immediate as well as long-term effects on students can, of course, also be seen as an interest in how schools modify ascribed characteristics to produce a more equal distribution of outputs. The disagreement is about time rather than the role schools can play in an individual's life. Concern about the school experience looks toward a more equal distribution of rewards for students in the present, more than toward how schools affect a student's later position as an adult in the social stratification system.

Much of the research in sociology of education in the past three decades reflects one or more of these conceptual orientations. The empirical work falls into four categories: (a) studies of equality of educational opportunity in the tradition of the status attainment models, (b) studies of equality of educational opportunity in the tradition of the school effects research, (c) studies of school and classroom organization, and (d) studies of school and classroom processes. Highlights of these four research traditions will be presented here.

## EMPIRICAL STUDIES OF EDUCATION AND THE STATUS ATTAINMENT PROCESS

Motivated by a fundamental concern about the extent to which American society is meritocratic, sociologists have long been interested in intergenerational mobility processes and particularly in specifying the effects of father's socioeconomic status, occupation, and income on that of the son. The conceptual underpinnings of this body of research are largely found in the landmark work by Blau & Duncan (1967). Sociologists of education are also concerned with how education modifies the effect of father's status on son's status, and with the direct effect of educational attainment on occupational status and income (Duncan & Hodge 1963).

A vast body of research addressing these questions developed around the Wisconsin social psychological model of status attainment (Sewell et al 1969, 1970; Sewell & Hauser 1975). This research examines three related issues: (a)

the relative effects of social origins and schooling on educational and occupational attainment, (b) how aptitude or ability affects the attainment process, and (c) whether the effects of family background and schooling on attainment are transmitted by social psychological factors or whether they have an independent effect (Bielby 1981, Campbell 1983).

The Wisconsin model relates family background and ascribed characteristics of students to their occupational status and earnings through the mediation of students' ability and academic achievement. These effects are posited to be transmitted through parental and peer influences and through educational aspirations and attainment. The unit of analysis in both the conceptualization of the Wisconsin model and its empirical tests is the individual. In that sense, the model is one of the effects of schooling rather than one of school effects. Several analyses of a large sample of Wisconsin male high school graduates provide support for the Wisconsin status attainment model. Longitudinal analyses of follow-up data from the Wisconsin sample also provide support. These studies basically show that socioeconomic status affects educational attainment and income through its effects on parental and peer influence and on educational aspirations. Academic ability has a strong effect on academic achievement, independent of socioeconomic status; it also affects educational attainment and occupational status through its impact on educational and occupational aspirations.

These results have been interpreted by many as demonstrating that status attainment in American society is indeed a meritocratic process since the disadvantages of family background can be overcome through schooling. Others, however, point out that both ascription and achievement influence upward mobility, and they use this research to criticize the schools for not adhering to more meritocratic norms and eradicating the effects of social origins on success in later life.

Numerous replications, modifications, and extensions of the Wisconsin status attainment studies were conducted during the 1970s and early 1980s. For example, Alexander et al (1975) replicated the Wisconsin model using a 15-year national, longitudinal sample of tenth grade US males known as the Explorations in Equality of Opportunity (EEO) sample. Jencks et al (1983) replicated the study using 1972 follow-up data from the eleventh grade males in the Project Talent survey. The results of these and other replications basically support the conclusions drawn from the original Wisconsin research and show that the results are generalizable to other geographic regions in the United States.

Modifications of the model include deleting one or more variables, such as significant other influence (Kerckhoff et al 1982), or changing the structure of the model (Porter 1974). Extensions of the model have added school characteristics in an effort to determine school effects on student aspirations and

have elaborated the social psychological processes affecting attainment (e.g. Alexander & Eckland 1975, Alwin & Otto 1977).

While status attainment research has always been characterized by a deep concern with methodological issues and a high level of technical sophistication, recent work in this area places even greater emphasis on measurement problems and estimation procedures. This is not surprising, given the technological innovations of the past few years and the amenability of the Wisconsin model to statistical analysis. Jencks et al (1983) investigate the effects of different measures of aptitude and achievement on outcome measures and conclude that the measures of family background used in the original test of the Wisconsin model underestimate the importance of family background and overestimate the impact of aptitude, achievement, and educational aspirations and attainment. Hauser et al (1983) show the importance of taking measurement error into account in testing the model. Based on revised estimates of the parameters of the model, they conclude that the data continue to support the original model but that the revised model is more powerful in predicting educational and occupational attainment.

The status attainment model and related research have been criticized on theoretical and methodological grounds. These have been characterized as mainly descriptive and atheoretical (Coser 1975, Burawoy 1977, Alexander & Cook 1979), although this criticism has been countered (Horan 1978). In its emphasis on social psychological processes, this research has been judged to ignore structural limitations and selection criteria (Kerckhoff 1976) as well as socialization processes (Campbell 1983). The causal ordering of the variables in the model has been questioned (Alexander & Cook 1979) as has the fact that the model is not fully recursive, although most studies assume it is (Jencks et al 1983). Until very recently, measurement and response errors in the data have not been taken into account (Hauser et al 1983). Despite these criticisms, this systematic body of research has made a significant contribution to the sociology of education and, in particular, to our understanding of the extent to which schools create and constrain equal opportunities for all students to succeed in adult life. Research on status attainment processes in the 1980s has taken a new direction. Partly in reaction to earlier criticisms of status attainment research, emphasis lately has shifted from how educational attainment affects occupational attainment and other labor market outcomes to analyzing the impact of variation in labor market structures on attainment. Current stratification research focuses on studies of labor market structures (see Berg 1981), gender differences (Rossi 1985, Reskin 1984), and variation in skills demanded by firms and industries (Kalleberg & Leicht 1986; Bielby & Baron 1983). Nevertheless, as Bielby (1981) argues, it remains important to understand how individuals enter the labor market. A specification of the interaction of educational and labor market effects would link current strat-

ification and labor market research to status attainment models of early socialization and schooling. This task is critical to an understanding of how schools affect social inequality. It remains a difficult but challenging agenda for future research in the sociology of education.

## EMPIRICAL STUDIES OF EDUCATIONAL EFFECTS

Heyns (1986) argues that the past two decades of educational research can be characterized as a prolonged debate over the meaning and measurement of educational effects. According to Heyns, the landmark Coleman Report (1966), *Equality of Educational Opportunity (EEO)*, the reanalyses, replications, and critiques of this work, and the numerous studies it engendered fundamentally transformed the field of sociology of education. The profound effect of this body of research occurred because it provided a way (valid or not) to measure equality of educational outcomes—by examining differences in the observed performances of school populations, and in particular, differences in standardized achievement test scores across schools. The major finding of the EEO study, of course, was that school characteristics and resources account for considerably less of the differences across student achievement than do family background and other student characteristics. These results provided support for the argument that schools are not an effective agent for the redistribution of societal resources.

The *EEO* study also showed that desegregated schools with white students in the majority benefit black students more than do “separate but equal” schools. This result was highly influential in inaugurating massive efforts to desegregate the American public school system through busing. By influencing this policy, the Coleman Report is one of the few examples of research in the sociology of education that resulted in significant changes in American education.

Coleman, of course, later reversed his position on the utility of busing as an instrument to attain the racial integration of schools and, therefore, the greater access of disadvantaged students to educational resources. Analyzing data obtained from the Office of Civil Rights, Coleman et al (1975) concluded that busing for purposes of racial integration resulted in the departure of a significant number of white families from the central cities with resulting higher levels of racial segregation in schools in both the cities and the suburbs. This had consequences for the achievement of black students who, as shown by a number of research studies (e.g. St. John 1975) made greater academic gains in majority white schools than in schools with a majority of black students. As a result of the subsequent controversy, many came to view as a failure the policy of busing the school children to attain greater social equality.

The practice of measuring school effects by comparing standardized test

scores continued in the most recent Coleman Report, whose controversial findings provoked considerable debate in the sociology of education. In 1980, the first wave of a large, longitudinal survey of high school sophomores and seniors was collected. This study, sponsored by the National Center for Educational Statistics, aimed to partially replicate the National Longitudinal Survey of the Class of 1972 and to provide data to study achievement and other educational outcomes. Data were collected from over 58,000 students from 894 public, 84 Catholic, and 27 other private schools. The results of the analyses of the 1980 data were reported in *Public and Private Schools* (Coleman et al 1982) as well as in several journal articles. Analyzing the 1980 data, Coleman and his colleagues compared the relative gain in achievement of students in public and private schools and concluded that private secondary schools enhanced academic achievement more than did public schools and that private schools did not aggravate racial segregation.

At least as controversial as the findings of the *EEO* study, these conclusions evoked strong reactions from the social science community in the form of both enthusiastic support and sharp criticism. And not unlike the reaction to *EEO*, much of the criticism was based on methodological grounds. Critics refused to concede that small, observed differences in achievement between students in private and public sectors could be attributed to school-sector differences (see *Sociology of Education*, Vol. 55, No. 2/3, 1982).

Because one of the objections to the findings of Coleman et al was that the analyses were based on cross-sectional data which precluded testing causal relationships, the 1982 wave of the survey was eagerly awaited. In a special issue of *Sociology of Education* (Volume 58, No. 2, 1985), Hoffer et al (1985) presented the longitudinal extension of the cross-sectional analyses appearing in *High School Achievement* (Coleman et al 1982) as well as a longitudinal extension of Greeley's cross-sectional analysis of the effects of public and Catholic schools on black and Hispanic achievement. This work is extended and elaborated in *Public and Private High Schools* (Coleman & Hoffer 1987). The authors interpret their findings as consistent with their earlier results and again conclude that Catholic schools are more effective than public schools in promoting academic achievement.

These results provoked more controversy and debate. A number of researchers reported analyses of the 1982 data which they claimed supported their earlier conclusions that only negligible differences existed between the achievement scores of public and private school students, or that observed differences were due to misspecification of the statistical model used to analyze the data. In an attempt to bring closure to this debate, Jencks (1985) argued that while between-sector differences were observable in the data, the magnitude of the differences is small and its substantive significance difficult to evaluate, and that the advantages of Catholic schooling may dissipate over

the long run. Jencks cautions that data on the cumulative effect of many years of exposure to particular kinds of educational "treatments" or practices are needed to answer the kinds of research questions addressed in the public-private school debate.

During the 1960s and 1970s, a number of other studies specifically designed to study the effects of school context and climate on student outcomes were conducted. (For a review of this work see Spady 1973.) Context, defined in terms of the socioeconomic, ability, or racial composition of the school, was believed to affect student achievement through its impact on student values, motivation, and aspirations. Others defined context in terms of value climate, and they examined the impact of student cultures or subcultures on academic outcomes. While many of these studies were severely criticized on methodological grounds, even the most rigorous ones failed to reveal strong contextual effects on student outcomes. Little research in this tradition continues through the 1980s. The complexity of identifying and measuring contextual factors makes this research difficult and the failure to find strong contextual effects has discouraged continued efforts in this area. Both conceptual and methodological advances are needed if interest in the effects of school context and composition is to be rekindled in the future.

Another perspective from which researchers have examined school effects on student achievement is in terms of the quantity of schooling. If length of time spent in school produces variation in achievement, then this is another way that schools act as a mechanism through which the unequal distribution of societal rewards is perpetuated.

Research in the effects on achievement outcomes of time spent learning has not produced consistent results. (For a review of this work, see Frederick & Walberg 1980 and Heyns 1986.) Studies of the length of the school year or school day generally show a positive relationship to achievement, but the magnitude of the effect is controversial (compare Wiley 1976 and Karweit 1980).

Research on "time on task" or the amount of time students attend to instruction, also shows only weak positive effects on achievement. Comparing attendance at summer school with nonattendance, Heyns (1978) shows that the rate of learning drops off for all students not enrolled in school during the summer, but that the decline is greater for disadvantaged children. Similarly, summer school programs benefit advantaged students more than disadvantaged ones. This raises important questions about the utility of summer school for promoting equality of educational outcomes.

In general, the extensive body of research on school effects conducted over the past three decades provides a partial answer to the question of whether and how schools can help redistribute societal resources in a more equitable manner. The research shows that schools exert some influence on an in-

dividual's chances of success, depending on the extent to which they provide equal access to learning. However, schools vary in the degree to which they provide such access, depending on their resources, composition, climate, philosophy, and pedagogical practices. In addition, family background remains a more powerful determinant of future status attainment than are schools. Consequently, these findings suggest to some that a radical change in schools is needed if they are to act as agents in the redistribution of power and status in society. Others argue that this goal should simply be abandoned. Still others continue to engage in research aimed at explicating the relationship between school characteristics and educational outcomes, convinced that even minor changes in social equality effected by the schools make an important contribution to society.

## EMPIRICAL STUDIES OF SCHOOL AND CLASSROOM ORGANIZATION

In the late 1970s and the 1980s a growing body of empirical research in the sociology of education investigated the social organization of the school and its effects on students' cognitive and social development. These studies as well as recent research on school and classroom processes examine the importance of the experience of schooling in and of itself, as well as its effects on later life experiences. This perspective is related, of course, to the question of social inequality in that the shaping of student attitudes and behaviors as well as their motivations, aspirations, and, of course, achievement affects their future success. But an emphasis on the importance of education to the individual in the present as well as its effects on future occupational and socioeconomic goals is a significant complementary viewpoint.

Two major components of the social organization of the school are the organization of the curriculum and the organization of students for instruction. By defining and constraining the knowledge to which a student is exposed in school, the curriculum and the organizational differentiation of students in school act as determinants of educational opportunities for students. Consequently, an understanding of the mechanisms that link them to student achievement is critical.

In contrast both to an earlier concern with the effectiveness of different methods of curricular instruction and to the more recent interest in the "hidden" curriculum, many researchers today view the curriculum as part of the organization of the school. This perspective is presented in Barr & Dreeben (1983) and in several papers in Hallinan (1987). The organization of the curriculum involves dividing the body of knowledge to be presented to students into subjects and courses to correspond with the organization of students for instruction. The most general level of curriculum differentiation

is the establishment of tracks, such as the academic, vocational, and general tracks, in most comprehensive secondary schools. In many schools, this is followed by other forms of ability grouping. As a result of this organization, students are presented with different subject matter, depending on the track or ability group to which they are assigned. Moreover, differences occur in the amount of material presented to students in different tracks or groups as well as the rate of teaching, the materials used, and even the amount of instructional time allocated to a particular subject.

This conceptualization of the curriculum shows how its organization affects the opportunities provided to a student to learn. Differences across tracks and ability groups in the amount of knowledge presented result in differences in student opportunities to learn.

To date, only a few empirical analyses test the hypotheses generated by this perspective. Barr & Dreeben's analysis of first grade ability groups in reading shows that the amount of the curriculum taught to students in an academic year differs by ability group level. Using the same data set, Gamoran (1986) shows a strong positive relationship between curriculum differences and student achievement. A number of new data sets, now being collected, will permit more rigorous tests of this conceptualization.

The second component of the social organization of schools is the organizational differentiation of students for instruction. A public school has relatively little control over the characteristics of its student population. Decisions made at the district level determine such issues as the racial and ethnic composition of a school body. However, within the school, organizational decisions can redistribute students in such a way as to create more or less homogeneity with respect to one or more student attributes.

The organizational differentiation of students determines what part of the curriculum is presented to a student as well as the rate and duration of instruction and the curriculum materials used. This, in turn, affects the student's opportunities to learn.

An almost universal basis for assignment of students to instructional groups is age, which defines the grade in which a student is placed. After grade assignments are made, aptitude or ability usually determines the track or instructional group to which the student is assigned. The rationale behind the use of this assignment criterion is that educators believe students benefit more from instruction in a group that is homogeneous with respect to ability than in a heterogeneous group. The academic consequences of ability grouping stem from the curriculum differentiation which it involves as well as from social psychological factors and contextual variables related to ability grouping.

Considerable research examines the effects of the pervasive practice of tracking and ability grouping on student learning and academic achievement (e.g. Oakes 1985, Alexander & McDill 1976, Eder & Felmiee 1984, Hauser

& Featherman 1976, Heyns 1974, Sorensen & Hallinan 1986, Hallinan & Sorensen 1987). The general conclusion that can be reached from this research is that tracking and ability grouping have a negative effect on the achievement of lower track or ability group students, a negligible effect on students in the middle groups, and a weak to modest positive effect on high track and ability group students. (However, not all studies support this conclusion, nor are these results always consistent across schools and curriculum areas.) Moreover, the research reveals a considerable number of disadvantages of tracking and ability grouping for students in the lower groups in terms of the development of negative attitudes and behaviors related to learning.

In addition to these immediate consequences of tracking and ability grouping for student achievement, the practice has been shown to have important consequences for future course selection and placement and for educational aspirations and attainment (Rosenbaum 1976, Alexander et al 1978, Hauser & Featherman 1976, Alexander & Cook 1982). Most of this research focuses on tracking at the secondary school level. The research shows that placement in a college preparatory track has positive effects on a number of educational outcomes, including academic achievement, measured by grades and standardized test scores, measures of motivation, and educational aspirations and attainment. And this positive relationship persists even after family background and ability differences are controlled.

Given these negative consequences of tracking and ability grouping, at least for some students, researchers recently have become interested in the factors that affect the assignment of students to instructional groups. At the secondary level, Alexander & Cook (1982) show that prior coursework and grade performance are strong predictors of students' track placement. Heyns (1974) finds that status differences have little or no impact on a placement but that verbal achievement is highly related to track membership.

Research on determinants of placement in ability groups at the elementary level has adopted a more organizational approach. In an analysis of reading groups in 15 first grade classes, Barr & Dreeben (1983) conclude that the assignment process is determined, mainly, by the achievement distribution of the class. The number and size of the low ability groups in their sample, for example, seemed to depend on the skewness of the aptitude or achievement distribution of the class.

In contrast, in a study of reading groups in 32 fourth through sixth grade classes and mathematics groups in 19 classes at the same grade level, Hallinan & Sorensen (1983) demonstrate that the number and size of ability groups is, to a large extent, independent of the aptitude distribution of the class and depends more on organizational constraints such as availability of curriculum materials and teacher time. Clearly, these issues need to be examined on

larger data sets collected specifically for the purpose of studying the assignment process.

As this review suggests, research on the effects of the social organization of schools on educational outcomes needs further development at both theoretical and empirical levels. We need to understand how organizational variables are manipulated by school personnel in response to philosophy and to policy considerations because this understanding is critical to improving the effectiveness of schools. More fundamentally, learning how schools distribute their valuable resources, such as access to the curriculum and to instruction, will reveal the central mechanisms through which schools act as agents of social change.

## EMPIRICAL STUDIES OF SCHOOL AND CLASSROOM PROCESSES

The concern of sociologists of education with equality of educational opportunity both during the schooling experience and afterwards also can be seen in studies of school and classroom processes. Sociologists share this tradition of research with social psychologists, psychologists, and educational psychologists, but each discipline brings its own unique perspective to the area. For example, the process-product tradition of educational psychologists focuses on the cognitive aspects of classroom processes that facilitate student achievement, and the sociolinguistic paradigm concentrates on the use of language in classroom interaction (Peterson & Wilkinson 1984), while sociologists are concerned with how classroom experiences mediate the effects of ascribed and achieved characteristics of students on cognitive and behavioral outcomes, both in the present and in terms of future consequences.

A large systematic body of empirical research on classroom processes is found in the application of expectation states theory to students' task-related interactions in classroom settings. Expectation states theory (Berger et al 1972) addresses questions about how high-status members of a group dominate group interaction and how inequalities in social interaction emerge, are maintained, and change. A number of empirical studies used this perspective to study the task-related interactions of students in mixed sex and mixed race classrooms.

Initially, in the work in this tradition, the preferred methodology was laboratory experimentation. Subsequent work examined status-organizing processes and related expectations in natural settings, primarily the classroom. (For a review of the work using both methodologies, see Cohen 1982.) These studies provide powerful evidence that sex and race do indeed operate as status characteristics that affect interaction patterns, with lower status students, i.e. blacks and females, participating less in task-oriented in-

teractions than do whites or males whose ascribed characteristics have higher status in our society.

Interventions proved to be remarkably successful in altering the status hierarchy in the classroom and changing the rate of participation by lower status students. These interventions aim at changing students' expectations for the competence of low-status peers. One intervention is expectation training where the low-status pupil is trained to teach the higher status student some skill or task (Cohen & Roper 1972). A second intervention is the introduction of new status characteristics that are inconsistent with existing ones (Cohen et al 1972). A third is using adults who possess the same ascribed characteristics as the low-status students in the classrooms as role models (Lohman 1972). Teachers are also used as interventions by having them positively evaluate the competence of the low-status students (Rosenholtz & Wilson 1980). A final intervention is to impose norms of equal participation on the group (Gamero-Flores 1981).

A confounding factor in all of this work and one that makes it difficult to weaken the effects of diffuse status characteristics is the correlation between ascribed and achieved characteristics of students, particularly race or socio-economic status and achievement. In most desegregated schools, lower-class minority students are in the same classroom as middle-class white students; this results in an academic status hierarchy that is congruent with the status hierarchy based on race or ethnicity. Applications of expectation states theory to classroom interaction processes suggest that interventions that alter both task structure and competence expectations should lead to greater participation on the part of low status students in classroom discussions and activities, and consequently, to increased learning. The research, therefore, offers pedagogical techniques that are aimed to reduce inequality of educational opportunity.

Other classroom processes of interest to sociologists of education involve students' social interactions and relationships. While much of the work in sociology of education has focused on educational achievement and attainment as the student outcomes of interest, researchers have also concentrated on school and classroom influences on student social relationships; the researchers recognize the importance of social relationships in and of themselves, as well as their potential for affecting academic achievement.

As Epstein (1983) points out, there is a difference between studying the social relationships of school children and studying students' social relationships in school. The former topic is generally approached from a developmental and/or psychological perspective, focusing primarily on characteristics of individual students in relation to their peers. The study of students' social relationships in school addresses questions about how students in-

fluence each others' attitudes, values, and behaviors and how school and classroom characteristics affect students' peer relations.

In sociological analyses of school influences on student social relationships, the focus of attention is generally peer influences and student friendships. Several analyses of peer influences were conducted in the 1970s, many in the tradition of the Wisconsin status attainment model. This research shows that peers mediate the effects of students' ascribed and achieved characteristics on educational achievement and attainment (Sewell et al 1969, Epstein 1983). Following in the tradition of Gordon (1957) and Coleman (1961), some studies (e.g. Cusick 1973) examined the impact of a student subculture on achievement, values, attitudes, and behaviors. This research shows that a peer group culture frequently obstructs student learning. (For a review of the peer influence literature, see Hallinan 1982.) More recently, the concentration on peer influences has been replaced, to some extent, by an interest in student friendships. This refocusing is partly due to a stalemate in peer influence research which needs improved measures, methods of analysis, and models. It is also attributable to a renewed interest in the effects of desegregation on race relations resulting from the greater availability of longitudinal data on race relations in desegregated schools.

A number of studies have identified school- and classroom-level determinants of the formation, stability, and dissolution of student friendships. (For a review, see Epstein 1983). The basic argument in most of this research is that the organizational structure of a school limits opportunities for students to interact with some peers and facilitates contact with others. In so doing, it plays a major role in determining both the number of friends a student has and the characteristics of those friends.

School and classroom characteristics that have been related to student friendships include racial composition, the organization of instruction, the status or reward system, and extra-curricular activities. In a study of twelve desegregated high schools, Patchen (1982) found that as the proportion of other-race schoolmates increases, students' friendliness toward those peers increases. Hallinan & Smith (1985) reported the same results for elementary school classes. Schofield (1982) found that race relations deteriorated when junior high school students who were untracked in the seventh grade moved into a tracked eighth grade.

Examining the effects of instructional organization on social outcomes, Oakes (1985) reported that students in high ability tracks were friendlier toward their peers than those in low ability tracks. Hansell & Karweit (1983) analyzed the McDill & Rigsby (1973) sociometric data from 220 high schools and found limited evidence that students in college curricular tracks had more extensive social networks than those in noncollege tracks. Epstein (1983)

reported that the distribution of friendship choices is more uniform and friendships are more frequently reciprocated in high participatory junior and senior high schools than in low participatory schools. Hallinan & Sorensen (1985) found that membership in the same ability group in elementary school increases the likelihood that two students become friends.

DeVries & Edwards (1974) and Slavin (1978) reported greater interracial friendliness in classes where the reward structure promotes within-group cooperation and between-group competition. In a meta-analysis that compared different reward structures, Johnson et al (1982) concluded that cooperative structures had the strongest positive effect on interracial attraction. Using the "High School and Beyond" data, Karweit (1983) showed that participation in extracurricular activities increased peer popularity, while Hallinan & Teixeira (1987) reported that participation in the same extracurricular activities increased the likelihood of friendship formation between elementary school students.

While much of the research on student social relationships shows that individual characteristics of students are the strongest predictors of same-race and cross-race friendships, these studies also demonstrate that schools can institute policies and pedagogies that foster positive interaction and friendship among students both within and across race.

A third area of research examines gender-related differences in classroom processes. Related to some of the expectation states studies, this work is concerned with gender influences on teacher-student and peer interaction patterns, teacher expectations and behaviors, and student opportunities for learning. Much of this literature is reviewed in Wilkinson & Marrett (1985). This body of research supports three general conclusions. First, small differences do exist in teacher-student and peer interactions in the classroom, such as teacher feedback and student participation in class discussions and activities. Second, observed male-female differences reflect sex stereotypes that develop outside the classroom rather than patterns that emerge for the first time in the classroom. Third, males and females respond differently to school experiences even when the experiences are similar.

In summary, the research on school and classroom processes identifies individual level characteristics of students and organizational characteristics of schools and classrooms that affect the cognitive and social behavior of students in school. Status differences, based on ascribed characteristics including race and gender, and achieved characteristics, particularly ability, affect student interactions and participation in the instructional process as well as their social status. These effects in turn have consequences for student learning. This research suggests that interventions may be required to weaken the impact of status characteristics on students' opportunities to learn. Fur-

ther, changes in organizational structures, such as grouping practices, may be needed to promote less status-based task-related and social interactions among students in school. Reducing the impact of students' social status on their participation in the instructional program of the school and on their social relationships appears to be another mechanism through which greater equality of educational opportunity can be attained.

## CONCLUSIONS

This chapter reviews recent empirical research in the sociology of education concerning issues related to equality of educational opportunity. Four major bodies of work are discussed—status attainment studies, school effects studies, research on school organization, and studies of school and classroom processes. Each of these research traditions is linked to the fundamental concern of sociologists of education with the role of schools in promoting social equality in society. The first two bodies of research focus on how schools transmit and modify the effects of ascribed characteristics of individuals in preparation for their entrance into the adult social stratification system. The latter two sets of studies examine the processes through which schools shape and modify the cognitive and social development of students during their school experience. Taken together, these empirical studies provide insights into the extent to which schools can act as agents of social change and the mechanisms through which this process occurs.

Despite its considerable importance in contributing to our understanding of a major societal institution, the empirical research on equality of educational opportunity has a number of limitations. Not the least of these is a certain lack of conceptual clarity in the positing and shaping of the research questions being addressed. As a consequence, the research studies often seem disjointed. Without the guidance of a powerful conceptual or theoretical framework, the studies fail to attain the status of a systematic research program that builds consistently on prior work. A review such as this provides a perspective on this work and attempts to integrate the different traditions under a general rubric. While useful, this effort cannot replace a good articulation between theory and empirical research.

What is needed, then, to advance research not only on equality of educational opportunity but also in the sociology of education in general is a clearer conceptualization of the issues themselves and a better fit between theoretical developments and empirical research agendas. The already impressive contribution of this field to sociology can only be increased with progress in this direction.

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