Forecasting Classroom Adjustment: The Utility of Standard Language Fluency

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FORECASTING CLASSROOM ADJUSTMENT:
THE UTILITY OF STANDARD LANGUAGE FLUENCY

by

Anne Despres

A Thesis
Submitted to the
Faculty of the School of Graduate Studies in partial fulfillment
of the
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CHAPTER I

INTRODUCTION TO THE PROBLEM
AND THEORETICAL BACKGROUND

To what extent, if any, is behavioral adjustment to the norms of others dependent upon language skills? If adjustment does vary with language ability, then why is this so? These two questions constituted the major concerns of this thesis. The basic theoretical statement guiding this research was expressed by Stryker\(^1\) when he stated that

... the adjustment of the individual is a function of the accuracy with which he can take the role of the other(s) implicated with him in some social situation.

Theoretical Background

It should be noted that Stryker's statement rests on two kindred Meadian assumptions: (1) that inherent in accurate role-taking is the ability to respond appropriately to others,

Role-taking is involved in all communication by means of significant symbols; it means that the individual communicator imagines-evokes within himself-how the recipient of his communication understands his communication. Role-taking has been operationally defined as the correct prediction of the responses of others.\(^2\)

and (2) that a mechanism, termed shared language, exists for accurately taking the other's role.


\(^{2}\) loc. cit., pp. 8 and 45.
Ability to take the role or attitude of the other is predicated upon a common universe of discourse. A universe of discourse is always implied as the context in terms of which significant gestures or symbols do, in fact, have significance. A universe of discourse is simply a system of common or social meanings.\(^1\)

If adjustment is predicated upon accurate role-taking and if grasp of the language is a mechanism for such role-taking; then, the ability to operate with the 'universe of discourse,' i.e., the standard language, is a necessary condition for individual adaptation to the norms of others.

**Operational Definitions of the Major Variables**

For the intents of this study, students' classroom behavior relative to teacher norms was termed **Classroom Adjustment**. Inherent in this operational definition is the assumption that the individual must adapt to the norms of the teacher or be considered deviant in terms of those norms. With regard to sources of normative deviance, this author assumed a position analogous to that of Howard S. Becker in his work *Outsiders* where he stated that:\(^2\)

> It (deviance) is created by society. I do not mean this in the way it is normally understood, in which the causes of the deviant are in 'social factors' which prompt his actions. I mean rather that social groups create deviance by making rules whose infractio constitutes deviancy and by applying those rules to particular people and labeling them as outsiders. From this point of view, deviance is not a quality of the act the person commits, but rather a consequence of the application by others of rules and sanctions to an offender.

---


In Becker's framework, Johnny is considered a naughty boy, not because he sang a solo for the PTA (the act per se), but because teacher said several of his classmates who had not arrived as yet were supposed to sing with Johnny. Doubtless, the rules-maker and the applier in the classroom situation is the classroom teacher.

Does the student require any unusual talent or atypical ability in order to adapt to teacher's rules? Is some special skill essential to escape the fate of the outsider? Responding in the affirmative, this thesis examined the proposition that the student must master the Standard Language of the social system (the school) to fully comprehend the expectations of the teacher, and thereby, act on these expectations, that is, adjust to the behavioral criteria developed and enforced by the teacher. Standard language should be construed as nothing other than that used by the classroom teacher in her role performance.

How might standard language be further characterized? This author failed to find fault with the contention that American public education, including the language of the classroom, is geared to and from the middle class. "Text books are middle class in orientation and content."\(^1\) Teachers are alleged to be middle class in origin and occupatiional values.\(^2\) This middle class situation is especially crucial when considering the educational prospects of lower class

---


youth, the subjects of this study. In the words of Brookover and Erickson:  

Children from other sub-societies may have had little or no interaction with people who use the formal language of the school. Rather, these children acquire the language of the sub-society of which they are a part.

Thus, these children are required to operate with two distinct language types in order to survive both on the block and in school. One may conclude, as did Brookover and Gottlieb, that the social life of the school penalizes children from lower socio-economic groups who fail to conform to middle class standards supported by the educational system.

To recapitulate: Thus far language and adjustment, the major variables examined in this thesis, have been identified and defined. Further, these two factors have been related to each other through the Meadian theoretical construct of role-taking. To reaffirm the theoretical orientation assumed in this study, the following Meadian propositions focusing on the role of shared language in role-taking are presented.

Theoretical Propositions

The following propositions, which provided the theoretical basis for this thesis, are grounded in the symbolic interaction tradition of George Herbert Mead as interpreted by Sheldon Stryker  

---


3Stryker, Sheldon, op. cit., pp. 42-43.
in Arnold Rose's Human Behavior and Social Process.

A. SOCIAL ACTIVITIES ARE IMBEDDED IN A STRUCTURE OF ROLES. Social activities are inevitable "self-other" patterns involving the relationship of one person to at least one other; for every role there is at least one counter or supporting role.

B. TO ENGAGE IN SOCIAL ACTIVITIES, A PERSON MUST TAKE THE ROLE OF THE OTHER(S) IMPLICATED WITH HIM IN THAT ACTIVITY. To play a role, Person A must incorporate into his "self" the role of Person B. A must anticipate or predict the response of B, since that response is the basis for A's further activity.

C. A SIGNIFICANT SEGMENT OF THE ROLE OF THE OTHER WHICH ONE MUST TAKE CONSISTS OF ATTITUDES. For Mead, "taking the role of the other" is not fundamentally different from "taking the attitude of the other." An attitude is simply an early stage of activity, including role activity. (12, pp. 6, 11, 159-160, 254 ff.)

D. ABILITY TO TAKE THE ROLE OR ATTITUDE OF THE OTHER IS PREDICATED UPON A COMMON UNIVERSE OF DISCOURSE. "(A) universe of discourse is always implied as the context in terms of which ... significant gestures or symbols do in fact have significance ... A universe of discourse is simply a system of common or social meanings." (12, pp. 89-90)

Research Objectives

Data were collected and analyzed in this thesis relevant to the relationship between the adjustment of economically disadvantaged kindergarten students to teacher-formulated norms and the language skills these students brought with them to the classroom. In other words, the primary objective of this research was to determine if, as hypothesized, the adjustment level of kindergarten children to classroom norms was a function of their standard language fluency prior to entry into kindergarten.

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1To earn the title "disadvantaged" students were required to meet Office of Economic Opportunity criteria. See Appendix 7-A for a statement of these criteria.

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If the hypothesis was confirmed then an obvious concomitant problem is the assessment of the interactive, multiplicative and additive effects that other contingencies may have on the function of language skills. Thus, in formulating this study, the additional general research objectives involved determining the function of language on adjustment when interacting with other variables. Some of the research questions which guided this phase of the study were:

1. Is the variation in students' adjustment to teacher expectations within socio-economic class explained, in part, by variation in students' functioning power with the standard language?

2. How does racial identity and/or family size, in combination with level of standard language fluency, affect student deviance from teacher-set norms?

3. In what ways and to what extent do other sociological and social-psychological contingencies influence standard language fluency? For example: How does the child's family intactness modify his mastery of the standard language of the school system?

Put more succinctly, two added objectives were: (1) to explain how language interacts with other forces to affect classroom adjustment, and (2) to examine how language intervenes between other forces and adjustment. These added objectives, however, were secondary to the primary purpose of this thesis, i.e. to determine if knowledge of one's standard language fluency, as theorized, is of empirical utility in forecasting his adjustment to teacher-set classroom norms.

However, as will be shown in the Findings Chapter, the data did not support the original guiding belief that variations in standard language fluency affect classroom adjustment. Therefore, inasmuch as data were available to answer certain questions relevant to
background social conditions and adjustment, it was decided to in­
vestigate several additional questions not originally posed in this
thesis. Rationales for the analysis of these exploratory questions
were not found in Meadian theory but in the preliminary research
findings. The following research hypotheses were the source of the
variables incorporated in the exploratory questions.

Major Hypothesis

As previously stated, a theoretical foundation borrowing
heavily from George Herbert Mead was developed in this research.
Within this Meadian frame of reference, standardized achievement
test results and teacher ratings were accepted as evidence of the
students' pre-school functioning capacity with the standard language.
Independent behavioral observations plus teacher ratings constituted
the measures of students' classroom adjustment to the norms of the
kindergarten teacher. On firmer ground regarding the measurement of
the major variables, hypothesis building followed.

Research hypothesis one was based on the Meadian theoretical
propositions cited previously. Subsequent hypotheses, incorporating
five social context variables, \(^1\) were derived from the literature on
adjustment.

\[ H_{R_1} \]  
Student's standard language fluency in pre-school is
predictive of the students' classroom deviancy from
teacher-set norms in the kindergarten.

\(^1\)The five social context variables included for analysis were
racial identity, socio-economic status, number of siblings, family
intactness, and pre-school socialization.
Secondary Hypotheses

$H_{R2}$: Students' racial identity is predictive of the students' classroom deviance from teacher-set norms in the kindergarten.

$H_{R3}$: Students' socio-economic status is predictive of the students' deviancy from teacher-set norms in the kindergarten.

$H_{R4}$: Students' family intactness is predictive of the students' deviance from teacher-set norms in the kindergarten.

$H_{R5}$: Students' family size (number of siblings) is predictive of the students' deviance from teacher-set norms in the kindergarten.

$H_{R6}$: Students' pre-school socialization is predictive of students' deviance from teacher-set norms in the kindergarten.¹

Exploratory Questions

It is one thing to find support for the above hypotheses, it is quite another to infer how such factors affect adjustment. Here, the central questions elaborate upon how these variables may interact with one another. Hence, the following exploratory questions were posed for causal (path) analysis:

1. How do the five social context variables plus language as an intervening variable (measured by the Stanford-Binet) interact with teacher-rated adjustment?

2. How do the five social context variables plus language as an intervening variable (measured by the Stanford-Binet) interact with observed adjustment?

3. How do the five social context variables plus language

¹The secondary hypotheses were not analyzed individually. Rather, the variables in these hypotheses were incorporated in path models for analysis of their impact, both on each other, and on language and adjustment.
as an intervening variable (measured by the Stanford-Binet) interact with school absence rate?¹

4. How do the five social context variables plus language as an intervening variable (measured by the Caldwell) interact with teacher-rated adjustment?

5. How do the five social context variables plus language as an intervening variable (measured by the Caldwell) interact with observed adjustment?

6. Does the variable of language function in the influence of pre-school socialization on student deviance from teacher-set norms?

Chapter Summary

Chapter I introduced the major research question examined in this thesis, i.e. Is students' pre-school fluency with the standard language of the school a reliable forecaster of the students' adjustment to the norms of their kindergarten teacher? Based on the work of Mead, Stryker and Rose (cited earlier), language fluency was related to adjustment through the theoretical construct of role-taking. Specifically, it was hypothesized that the greater one's ability to accurately take the other's role (through the medium of shared language fluency) the better adjusted he will be relative to the other. Thus, hypothetically, role-taking accuracy constituted the predominant index of adjustment in this thesis.

However, as shown in the Findings Chapter, language fluency was not found to be a reliable forecaster of student deviance from teacher-set norms. Nevertheless, preliminary analysis suggested

¹Student absence rate was not originally intended for inclusion in this study. But, since this information was made available, it was decided to employ absence rate as an additional index of student adjustment.
other relationships meriting further investigation. Therefore, exploratory questions, based on the secondary hypotheses, were also introduced in Chapter I. The focus of these questions was language as an intervening variable between the social context factors and adjustment.
CHAPTER II

THEORETICAL LITERATURE

Stryker, in studies providing the theoretical basis for this thesis, examined the Meadian construct of role-taking in a familial setting. Using married offspring and their parents as his sample, Stryker attempted to relate role-taking accuracy, measured by the correct prediction of others' responses, to level of adjustment.

Regarding the measurement of adjustment, Stryker admitted to the inavailability of a suitable instrument and resorted to items adapted from diverse inventories and schedules, or devised the adjustment items himself. Thus, for the purposes of his study, Stryker's operationalization of adjustment as "the sense of happiness and satisfaction as an end product of accuracy in role-taking" appears to be conceptually weak.

With respect to measuring the accuracy of role-taking, Stryker stressed the fact that, while measurement procedures for role-taking,  

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1Stryker, Sheldon, "Role-taking Accuracy and Adjustment," Sociometry, XX (December 1957), 286-96. It should be noted that each of the following studies reported by Stryker relates to the major work concerning role-taking accuracy and adjustment.


3Stryker, "Role-taking Accuracy," op. cit., p. 286.


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empathy, insight, etc., may be similar, these concepts are not
synonymous and do not imply identical conceptual or theoretical
concerns. The relationship between role-taking accuracy and empathic
ability is mentioned here because it is discussed in some form by
the majority of the authors cited in this chapter and poses a po-
tential theoretical problem to be dealt with.

Stryker's\textsuperscript{1} basic finding was not supportive of his initial
hypothesis. Specifically, parents who were poor role-takers were
\underline{better adjusted} with reference to their married offspring than were
parents who were accurate role-takers. Vulnerability\textsuperscript{2} was hypothe-
sized as an intervening variable promoting the inverse relationship
between role-taking accuracy and adjustment. Analyses of variance
bore out the vulnerability hypothesis.

What consequences for the utility of role-taking theory in
empirical research do these findings hold? Stryker\textsuperscript{3} suggested that
knowledge of others, \textit{i.e.} accurately taking their role, does not
necessarily foster adjustment. In fact, under certain circumstances,
such knowledge may be decidedly maladjustive. While Mead's empha-
sis on role-taking as an adjustive mechanism may be valid, Stryker's

\textsuperscript{1}"Role-taking Accuracy," op. cit., pp. 291-92.

\textsuperscript{2}It may be expected that highly traditional parents will be
\underline{more vulnerable} in their relationship to offspring than non-tradi-
tional parents; that parents who are dependent upon their children
will be more vulnerable than independent parents; and that parents
whose views do not agree with their offspring's will be more vul-
nerable than will parents whose views coincide with those of their
offspring. \textit{loc. cit.}, p. 299.

\textsuperscript{3}\textit{loc. cit.}, p. 295.
findings reported here and the work of Steiner,\(^1\) failed to support Mead. Thus the utility of role-taking theory in empirical research is open to question on this point.

In view of his negative findings, Stryker\(^2\) questioned the criteria for the use of a specific theory on the empirical level. He maintained that one such criterion is the frequency with which the theory allows correct prediction of empirically observable events. But added that further development of social psychological theory is required before more reliable prediction can be expected.

Stryker's second criterion for assessing a theory asked: Is there an alternative explanation which could better account for the findings? Applying this standard to his findings, Stryker suggested that three alternative explanations are plausible. Role-taking ability may be a function of intelligence. In Stryker's study this did not seem likely since there were no consistent differences in role-taking ability by educational level, if the educational level can be accepted as a crude index of intelligence. Role-taking as a function of length of acquaintance and similarity of role-taker and other were two additional explanations which could conceivably account for Stryker's findings.

\(^1\)Steiner, I. D., "Interpersonal Behavior as Influenced by the Accuracy of Social Perception," Psychology Review, LXII (July 1955), 268-74. Steiner noted that empirical tests have not evidenced that accurate social perceptions are responsible for interpersonal competence, i.e. adjustment.

A third criterion is the degree of modification necessary to align theory with empirical observations. Stryker asserted that, while it has proven necessary to reconcile role-taking theory with empirical findings, Mead's work is essentially sound and, thus, the utility of role-taking theory on the empirical level should not be discarded.

No survey of role-taking theory can be considered complete without reference to the writings of George Herbert Mead, the founder of the symbolic interactionist school of thought. Mead, in the classic work, *Mind, Self and Society*, presented the broad outline of his system of social psychology.

The cornerstone of his psychological theory, the concept which forms the basis for his explanations of the development of mind, the emergence of the self, and the integration of society, is that of "role-taking." 1

Perhaps the most pervasive aspect of Mead's theorizing is the interdependence of the concepts, role-taking and the gesture as a symbol. Discussing the part played by significant symbols in taking the attitude of the other (role-taking) Mead 2 stated that:

The function of the gesture is to make adjustment possible among the individuals implicated in any given social act with reference to the object or objects with which that act is concerned; and the significant gesture or significant symbol affords far greater facilities for such adjustment and readjustment than does the individual making it the same attitude toward it (or toward its meaning) that it calls out in the other individuals participating with him in the given


social act, and thus makes him conscious of their attitude toward it (as a component of his behavior) and enables him to adjust his subsequent behavior to theirs in the light of that attitude.

This thesis has maintained the necessity of shared language as a mechanism for role-taking. With regard to this issue Mead wrote:

I have spoken of this (self development) as a process in which a child takes the role of the other, and said that it takes place essentially through the use of language. Language in its significant sense is that vocal gesture which tends to arouse in the individual the attitude which it arouses in others, and it is this perfecting of the self by the gesture which mediates the social activities that gives rise to the process of taking the role of the other.

To Mead, role-taking was the essential element distinguishing human social organization from insect and animal societies. It was the element responsible for the socialization of children, enabling them to function adequately as members of society. In a contemporary interpretation to Mead, Meltzer related the acquisition of self in the child to role-taking ability.

To state that the human being can respond to his own gestures necessarily implies that he possesses a self. The mechanism whereby the individual becomes able to view himself as an object is that of role-taking, involving the process of communication, especially by vocal gestures or speech. The crucial importance of language in this process must be underscored. It is through language that the child acquires the meanings and definitions of those around him. By learning the definitions of events or things, including their definitions of his own conduct.

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2 Dymond, op. cit., p. 6.


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While role-taking is vital to both self development and societal stability, Mead granted that the ability to take the role of the other is not a constant. That is, role-taking ability varies tremendously within and between groups of individuals. Mead maintained that those who are more adept at role-taking serve two important social functions. One such function is that of leadership—relating to whole groups in a community whose attitudes have not entered into the lives of others in that community. Facilitating communication between such groups constituted the second function served by role-taking.

Leonard S. Cottrell, one of Mead's students, developed his social psychological system in line with that of his professor. Thus, it is not unexpected that, in Cottrell's framework, the role-taking process was once more central. Propositions I, II and III which formed the basis of his (Cottrell's) role theory are presented as follows:

I. When human organisms respond to each other over a period of time, the activity of each becomes a stimulus pattern for a more or less stabilized response pattern in the other(s) assuming the motivational component remains essentially unchanged.

II. The impact of one human organism, A, on the activities of another, B, not only stimulates and conditions a response pattern of B to A as A has perceived that action, and vice versa. The latter pattern is not necessarily manifested overtly but must be assumed to exist at least in incipient or attitudinal form.

III. It follows from II that each member of an inter-personal relationship is not only conditioned to respond to the acts of the other(s) with his own act series as a stimulus series with actions he incorporates from the other(s).\(^1\)

\(^1\)Dymond, op. cit., pp. 7-8.
In Cottrell's system the ability of A to "take into itself the response"\(^1\) of B was a given. He explained childhood socialization, group integration, and the predictability of human behavior as the products of role-taking ability. Thus, similarities are evidenced between the social-psychological system of Mead and Cottrell.

Cottrell assumed, as did his predecessor, that the master role-taker will more accurately predict the behavior of others, will be a well-integrated member of his social group and will communicate more successfully with others. Both men postulated role-taking as the means by which we adjust to others and become both differentiated into unique selves and integrate as group members.\(^2\)

While Mead and his successors have developed a substantial body of knowledge, Dymond\(^3\) suggested that the task is incomplete in that Mead's writings do not constitute a theoretical whole. She further alleged that Mead failed to both define the processes by which a role is taken and the conditions under which optimum role-taking occurs.

A final criticism involved the relationship between shared language and role-taking.

Whether role-taking is the product of language--language the result of role-taking ability--or both the outcome of some other cause, is an unanswered question in Mead's system . . . \(^4\)

\(^1\)loc. cit., p. 9.
\(^2\)loc. cit., p. 10.
\(^3\)loc. cit., pp. 1-2.
\(^4\)loc. cit., p. 2.
according to Cottrell's protege.¹

The following questions, which will guide the remainder of this segment of Theoretical Literature, are modifications of the work of Dymond:²

1. What process or processes are involved in taking the role of the other?

2. Is role-taking a single ability or are a number of factors combined?

3. Are there wide individual differences in role-taking ability, as suggested by Mead and Cottrell?

4. Does the ability to take the role of the other vary within the individual?

5. How does situational context affect role-taking, if at all?

6. Is role-taking ability subject to improvement with practice?

While the above questions merit further attention from theorists and empiricists, strides have been made toward clarifying these issues regarding the concept of role-taking.

Turner³ suggested that weaknesses in the concept of social role add to conceptual difficulty in terms of role-taking. He recommended a re-examination of the point of origin in role theory. That

¹ In the 'acknowledgements' section of her dissertation, Dymond tells of the impact Leonard Cottrell had on her academic career.

² loc. cit., pp. 10-11.


⁴ This author maintains that role, role-taking, etc. are theoretical constructs (with no referent in empirical reality) as opposed to a concept which has such a referent. Since most writers cited herein fail to make this distinction, the terms were used interchangeably.
is, accepting the existence of distinct-identifiable roles should be distinguished from "postulating a tendency to create and modify conceptions of self and other roles as the orienting process in interactive behavior."¹ For, while the individual organizes his behavior as if social roles were concrete constants, such roles, in fact, are variable with regard to both concreteness and consistency. Thus, the actor, in attempting to make aspects of the other role(s) explicit is, in reality creating and modifying roles as well as bringing them to light; this process is not only role-taking but role-making.²

Focusing specifically on role-taking, Turner³ implied that confusion has arisen due to the variety of meanings attached to the concept. Role-taking has been linked to 'sensitizing,' psychodrama, empathy and reference groups among others. While each of these concepts may bear some relationship to role-taking, they serve to underscore the lack of consensus surrounding the definition.

In an attempt to clarify the concept of role-taking, Turner discussed two alternative classifications: (1) role-taking with reference to an ability or capacity and (2) role-taking as related to criteria for inferring the other role. An example of the first type is empathic ability where the actor accurately infers the other's feelings or anticipates his behavior. Turner added that, from his

¹loc. cit., p. 22.
²ibid.
standpoint, accuracy of inference is immaterial in terms of role-taking ability. For . . .

. . . once the actor formulates a conception of the other, the manner in which that conception serves to shape his own behavior is unaffected by the accuracy or inaccuracy of the conception.¹

In terms of the second classification, projection (constructing the other role as he would were he in the situation) and knowledge of the other (relying on prior experience with alter) were cited as bases for role inference.

Toward additional clarification, Turner presented three general role standpoints or positions from which ego imaginatively constructs alter's role. Initially, the actor may incorporate the other's standpoint into his own behavioral repertoire. In this case, ego identifies completely with alter and regards alter's behavior as an automatic guide to his own. In the second case, alter's role may remain an object observed from the standpoint of a personalized third party or a depersonalized norm. This role position is void of the behavioral directive prevalent in the first instance. Finally, alter's role may be viewed from the standpoint of its interactive effect with potential self-behavior, as furthering some individual or group goal. Compare this standpoint to the Meadian theoretical construct—the game.

Turner² dichotomized role-taking into the reflexive and non-reflexive varieties.

¹loc. cit., p. 318.
²loc. cit., p. 321.
When the role of the other is employed as a mirror, reflecting the expectations or evaluations of the self as seen in the other role, we may speak of reflexive role-taking.

The similarity to Cooley's "looking glass self" should be evident. In non-reflexive role-taking, alter's role is not relevant as a mechanism for self-evaluation.

Couch, in an examination of self attitudes and agreement with immediate others, adopted one of Turner's major premises, namely, that in a given situation ego bases his behavior not on alter's actual attitudes but, rather, his (ego's) perceptions of those attitudes. In this study, Couch was concerned primarily with ego's inferences of alter's behavior. Assuming a 'looking glass self' perspective, Couch claimed that ego's self attitude is a significant variable influencing the extent to which he relies upon estimated evaluations of immediate others. Since the self is the single variable present in every behavioral situation, it follows that this variable is crucial to an understanding of human behavior, including the role-taking process. Couch's findings, though they may not be applicable to all social situations, indicated that measures of self-attitudes show promise of predicting social behavior. To advance these findings one step further, we may hypothesize that the factors impeding self-adjustment to specific roles, e.g. age-sex roles, may

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2Cottrell presented ... a series of propositions covering what appear to be chief determinants of the degree of adjustment an individual is likely to realize as he functions in a given social role.
be detrimental to taking the role of others as well. In other words, if ego cannot manage his self roles adequately he may be ill-prepared to cope with the roles of others.

In a paper entitled, "Dimensions of Association in Collective Behavior Episodes," Couch¹ focused on two processes involved in taking the role of the other--parallel role-taking and reciprocal role-taking. Of parallel role-taking Couch said, it refers to the adoption of another's role-standpoint and thus, strictly speaking, no role is taken. Specifically, adopting the standpoint of another does not necessarily involve identifying with his role or position.

"Parallel role-taking involves one actor making the same response on a covert level that another makes on an overt level . . . ,"² as in childhood socialization, which relies heavily on parallel role-taking. A case in point is that of the father encouraging his young son to act as daddy does toward the boy's baby sister.

The concept of reciprocal role-taking borrows from Turner's discussion of role-standpoint where he speaks of the actor maintaining a distinction between self-attitudes and those of others. A case of reciprocal role-taking occurs when the speed violator attempts to take the role of the traffic cop. If the offender can

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²ibid.
correctly predict the officer's responses to his rationalizations (going to a fire?) he may talk his way out of a citation. But, of course, ego must maintain the distinction between his and alter's viewpoints or he may talk himself into a trip to court.

The initial questions guiding this phase of Related Literature implied that role-taking accuracy is beset with variation—contextual, interpersonal, and dimensional to recap a few. Vonk stated that there are numerous types of variables likely to influence the accuracy of role-taking ability. Sociological factors potentially impinging on role-taking accuracy are:

1. Similarity or dis-similarity of the cultural norms
2. Sub-cultural norms (e.g. SES)
3. Community norms
4. Family and/or peer group affiliations

Relevant psychological considerations include the personality types of alter and ego on the authoritarian-democratic continuum and the extent to which introverted-extroverted behavior is displayed by each member of the dyad. Ecological influences were postulated. For example, it is conceivable that a youth, reared in a neighborhood void of school teachers, will experience more difficulty in predicting the teacher's behavior in a given situation, than will the youth who has interacted with teachers on both the formal and informal levels. Individual differences may also affect accuracy

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of role-taking ability. In other words, if both alter and ego share a similar unique experience, e.g., combat, extensive travel or childbirth, behavioral forecasting may be facilitated. Similarity of educational and vocational plans or aspirations are social-psychological factors which may enhance ego's ability to accurately take the role of the other.

Variations in accuracy of role-taking ability on dimension of sex were investigated by Brown. Specifically, he measured the effects of: (1) sex of alter, (2) sex of ego, and (3) sexual orientation of the situation, e.g., beauty salon (female) and truck stop (male) on the act of role-taking. Sex was selected as the major independent variable in Brown's study because it is both mutually exclusive and all-pervasive. The principal predicted effect was that same-sex role-taking would be superior to cross-sex variety, given a relatively equal extent of previous acquaintance. A secondary prediction was that role-taking ability would vary with the sexual orientation of the situation so that in female-oriented situations women would be the better role-takers and vice versa. Findings indicated that the sexual orientation of a given situation is of slight consequence, when taken by itself, in predicting the perceptions of others in that situation; although males were perceived more easily in male situations, irrespective of the sex of the perceiver. Males were found to be the more skillful role-takers regardless of the sexual orientation. When sex of perceivers was

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taken into account, same-sex perceptions were far superior to cross-sex perceptions. These findings inferred that: (1) barriers to role-taking exist between the sexes, (2) a situational-free skill in role-taking exists as a variable property of individual personalities, and (3) sex-role is a significant variable in terms of predicting human behavior including role-taking ability.

Deutscher\(^1\) summarized a collection of research findings dealing with role-taking ability among members of the lower class. Deutscher\(^2\) reported that:

Schatzman and Strauss (1955) are convinced, on the basis of transcripts of interviews, that lower-class respondents are interpersonally incompetent—relatively unable to take the role of the other. Cohen and Hodges appear to verify this position and conclude that "interview and questionnaire techniques are more likely, when applied to (Lower Class) respondents than when applied to respondents to the other social strata, to produce caricatures . . ." (1963:333): In commenting on the lack of role-taking ability manifested in the interviews of lower-class people, Cohen and Hodges concede that this does not deny its existence and remind us of the "peasant shrewdness" of the lower classes as, for example, in their "conning" ability (1963:332).

Definitional inconsistencies in terms of role-taking ability have been cited previously as factors fogging the clarity of the concept. An additional term which has confused the issue of role-taking is that of role-playing, and while the two sound alike they differ conceptually. In an appeal for clarification Coutu\(^3\) distinguished

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2. Ibid.
role-taking from role-playing. He defined role-playing as the performance of the behavior expected of one in a particular social position. Thus, Mrs. America plays the role of the mother—caring for baby, disciplining the children, preparing school lunches, etc. Playing-at-a-role, an analogous term, is exemplified by the behavior of little sister imitating the role of Mommy.

C. H. Mead (1934) emphasized the contribution that playing at many roles makes to role-taking ability. A person with practice in shifting perspectives and in behaving in a variety of ways has greater cognitive and motoric skills than a person whose developmental history is impoverished in this respect.¹ Of role-taking Coutu said that, "... unfortunately this term has nothing whatever to do with playing the role as described above." He admitted that the problem is in part an historical one. That is, Mead used the concepts "role" and "attitude" interchangeably (taking the role or attitude of the other), when in fact the terms are not equatable in the contemporary sense.

Coutu developed five criteria to distinguish role-taking from role-playing.² In the first place, role-playing is a sociological concept, while role-taking leans more toward the psychological. Second, role-taking involves pretending we are someone else in order to forecast the other's behavior, while role-playing involves no such pretense. Though one may at times wish the traffic cop writing out his speeding ticket would pretend he were anyone but a law en-


forcement officer. A third differentiating factor deals with social distance. Whereas role-taking is enhanced by a minimum of social distance, this same factor may impede role-playing. Thus, if our traffic cop were to put himself in the place of the violator too effectively, he would never amass his quota of tickets. A fourth factor is that role-taking is concerned with the role of at least one other. Role-playing is not directly concerned with other roles. A final distinguishing factor suggests that taking the role of the other is, for the most part, a communication mechanism, while role-playing only indirectly involves communication.

Allen and Sarbin\(^1\) cited several empirical tests of role-taking theory. They stated that the one aspect of cognitive role skills which has received the most theoretical and empirical interest is covered by the terms role-taking, empathy, social sensitivity, identification, and social perception. And though these terms vary in specific meanings, they refer generally to cognitive and affective responses made with respect to another individual. Mead and others have stressed the necessity of role-taking in social behavior. Inability to take the other's role has been shown to have dire consequences on the individual's behavior. \textit{Delinquency} (Baker and Sarbin, 1956; Gough, 1948; Gough and Sarbin, 1966), \textit{behavior disorders} (Cameron, 1947),\(^2\) and other asocial patterns have been interpreted as due to lack of skill in taking the other's role.

\(^1\)Allen and Sarbin, op. cit., pp. 515-21.
\(^2\)Ibid.
It has been maintained that role-taking is related to cognitive development in children. Feffer and Gourevitch \(^1\) (1960) required children of various ages to perform a projective role-taking task and complete a series of impersonal cognitive tasks. A correlation between role-taking competence and the (cognitive) ability to structure the physical world was hypothesized.

Performance on the cognitive and on the role-taking tasks was analyzed in terms of ability to decenter, that is, to shift in a flexible way from one part of a situation to another. The results showed that the impersonal cognitive task and the role-taking were correlated and that each was correlated with chronological age. Moreover, the positive relation between scores in decentering in role-taking and the impersonal task scores remained after correcting for age and verbal intelligence.\(^2\)

The relationship between role-taking and empathy was alluded to in this chapter as posing a "potential theoretical problem." Consequently the remainder of this section is devoted to an exploration of this relationship.

In "Empathic Ability: An Exploratory Study," Dymond maintained that empathy, defined as the "imaginative transposing of oneself into the thinking, feeling, and acting of another and so structuring the situation as he does,"\(^3\) came "closest" to the Meadian conception of role-taking. Dymond added that, while empathy may not be the only process underlying role-taking ability, it appeared to be a central one. Two relevant findings cited in this study were that: (1) empathic(role-taking) ability varied interpersonally to a considerable extent.

\(^1\)Ibid.

\(^2\)loc. cit., p. 520.

\(^3\)Dymond, op. cit., p. 15.
extent, and (2) empathic (role-taking) ability varied within one individual depending on the particular other involved in the interaction. In agreement with Dymond's theoretical position, Vonk implied that empathy may be an element of role-taking, since both concepts involve identification with the other.

Allen and Sarbin discussed the impact of empathy on the three role standpoints presented by Turner in "Role-Taking, Role Standpoint and Reference Group Behavior." In describing Turner's typologies, they stated that:

To begin with, an individual who is playing the role of another person may completely 'identify' with him, in which case the other's imagined feelings might become an automatic guide for his own behavior. On the other hand, he may regard the role as some object to be examined and then cast himself as a third party who uses data of the other's role enactment as a guide for action. Finally, the role may be viewed with the notion of using it in interaction with the other to achieve some purpose. The effects of the role of the other are different for each of these standpoints.

From Turner's analysis, it is clear that empathy as it is commonly understood has a facilitating effect on role-taking only in the first case, where the actor desires to be guided by the imagination and feelings of the relevant other.

In the study cited above, Turner summarized five "senses in which empathy has been used."

1) By most traditional usage empathy refers to nonreflexive identifying role-taking, in which the individual unwittingly puts himself in the position of another and adopts his standpoint.

2) Sometimes empathy is presented as an ability that is

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1Vonk, op. cit., p. 7.
2Allen and Sarbin, op. cit., p. 516.
3Turner, op. cit., p. 326.
desirable in personnel relations, in which case it designates the ability to understand the role of another while retaining one's personal detachment.

(3) Empathy is sometimes used to designate the process of seeing one's self as others see one, the ability to react to one's own behavior as others are reacting to it.

(4) Empathic capacity is sometimes used synonymously with role-taking capacity, to include all the forms of the process we have described.

(5) When empathy is distinguished from projection, it refers to one criterion for inferring the other-role. In this usage all our types would be included so long as the role-taking is not based upon projection.

Turner suggested further that at least three factors should be considered in the decision to employ any one of these meanings. He attempted to relate these same factors to the substance of the article. Initially, Turner distinguished the ability to empathize from the tendency to empathize. Thus he asks, "Under what circumstances will a person employ such empathic abilities as he has rather than merely enact a rigidly predetermined role or react to the other's gestures with standardized responses?"¹ Second, Turner questioned how the inferred other-role influences ego's behavior. And finally, given the effect of role standpoint on the role being taken, he inferred that selected portions of alter's role performance are more salient than others. Therefore, the accuracy of empathic behavior will vary with the emphasis provided by the particular role standpoint.

Chambers,² in a study of empathy and scholastic success, stated

¹Ibid.

If learning is looked upon as a sort of 'experiencing' into a situation, as well as sheer mastery or memorization of fact, it appears that an ability which permits the taking of the role of another facilitates experiencing into a situation.

Chambers chose Dymond's conceptualization of empathy as his definition of role-taking competency. He hypothesized that in similar learning situations, students with greater empathic skills would be more academically successful, i.e., would be more capable of taking the teacher's role. Chambers' findings appeared to be significant for education-related personnel in that both scholastic aptitude and empathic ability were found to be related to academic success. Moreover, when aptitude is held constant, empathy seemed to be the factor which enabled students with minimal scholastic aptitudes to succeed academically. This finding implied that empathic ability may be as important as IQ, GPA, etc. in predicting the student's success in the classroom and on the job.

"Ability to take the role of the other has frequently been investigated by requiring one person to predict the responses of another person on a series of attitudinal items or on a personality test."¹ "The most commonly used technique (to measure empathy) has been to require subjects to predict the verbal responses of another person on a rating scale or a personality test."² These

¹Allen and Sarbin, op. cit., p. 516.

quotes indicate that these techniques for the measurement of role-taking and empathy are identical.

Bender and Hastorf stated that empathy is usually defined in a deviational sense, i.e., the best empathizer is the one whose predictions deviate least from the self-ratings of the person predicted for. These authors hypothesized that this operational definition may be inadequate since projection (attributing to others one's own needs, values, attitudes, etc.) may be operating simultaneously with empathy. Findings supportive of this hypothesis led the authors to suggest that "a refined measure of empathic ability will approximate more adequately the psychological aspects of empathy" as defined by Dymond.

Gage and Cronbach agreed that the conceptualization of empathy is anything but precise and, in fact, may be faulty.

Thus, one test of empathy finds out how accurately subjects predicted the ratings acquaintances will give them. Another test of empathy requires that subjects estimate musical preferences of the average factory worker. Not surprisingly, these tests correlated only .02.

One reason suggested for this conceptual inconsistency stemmed from inadequate operational definitions based on "face-valid" techniques.

**Chapter Summary**

It is hoped that the preceding review of theoretical literature

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1 ibid.

2 loc. cit., p. 576.


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has left the reader with some thoughts on the following aspects of role-taking:

1. the amount of research interest generated in the area
2. the part played by role-taking in empirical research
3. the state of consensus regarding the sense (meaning) of role-taking on both the theoretical and empirical levels among social scientists
4. the various mechanisms involved in the process of role-taking
5. the need for further efforts to illuminate the concept of role-taking
6. the need to specify one's theoretical perspective when employing role-taking in research work

Regarding the sixth aspect, it appears proper at this time to restate, and perhaps clarify, the perspective taken on role-playing in this thesis. Hopefully, it is evident that a normative approach to role-taking has been adopted. Turner\(^1\) provided the rationale for this line of reasoning:

Roles are often identified as sets of norms applicable to an actor playing a recognizable part. [It may be said that] norms are at least partially equatable with expectations. The two terms are almost interchangeable, and for all practical purposes, they become interchangeable. That is, "... ego takes the role of alter in order to conform to alter's expectations ... or alter's norms."\(^2\) Thus, for the purposes of this thesis, students' conformity to teacher-set norms was synonymous with accurate role taking.

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\(^1\)Turner, "Role-Taking: Process Versus Conformity," op. cit., p. 35.

\(^2\)loc. cit., p. 33.
CHAPTER III

THE SOCIAL CONTEXT OF ADJUSTMENT

This second chapter of Related Literature focuses on the variant factors affecting students' classroom behavior, specifically classroom adjustment. Recalling the design of this study, it appears that some mention should also be made of the relationship between selected independent variables and the major independent variable in this study—pre-school language socialization, i.e., student's standard language ability prior to entry into kindergarten. Thus, this section opens with a discussion of the variables which supposedly influence language acquisition and functioning in small children.

Fowler, in Early Education, reported a series of studies dealing with language learning among the young. This author stated that language is one of the key mechanisms whereby the child is able to regulate and direct his environment. The importance of early language facility and the variation in language ability by social class for children of all ages have spurred research interest toward an

1 Selected independent variables refer to those variables stressed in the literature as relevant to language acquisition and functioning in small children.

examination of those factors influencing language acquisition and functioning at various age levels.

Studies have been performed relating language to cognitive functioning. One difficulty with this type of research is obtaining independent measures of both variables. In one such study, Luriia et al. (1961) found language mediation to be one basis for facilitating cognitive development among the young. Stodolsky (1965) in a study relating these same variables, examined four year old black and disadvantaged children. Results indicated that no child performed at a high cognitive level (Kohlberg Sort Scale 1962) who did not attain a criteria level of adequate language functioning on the Peabody Picture Test.

Chronological age has been investigated as vital to language development. El'Konin (1960) found no discrimination of vocal from auditory stimuli in babies 7-8 months but, in those 11-12 months, conditioning to words occurred. Lyamina (1960) reported difficulty in teaching language to children less than 16 months old. Rheingold (1956), Weisberg (1963) and others have demonstrated the possibility of increasing the amount of vocalizing in 3 month old infants as a function of social and non-social conditioning stimuli. These studies indicated that language development can be altered as a function of planned stimulation programs.

Of the numerous variables related to language acquisition and functioning in young children, three additional factors have been

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1 See previous footnote for the source of these studies.
shown to be of sufficient import to be cited herein. Maternal influences on the early language socialization were studied by Hess and Shipman.¹ These authors attempted to relate the linguistic and regulatory behavior of the mother to the information-processing strategies and styles induced in her child. Consistent findings indicated that:

the child's performance on cognitive tasks is associated with specific maternal behavioral variables at a level comparable to or higher than that obtained by the more traditional measures of maternal IQ and social class. We regard this finding as progress toward identifying the specific maternal behavior in the mother-child interactional system which codes and translates social class and maternal intelligence into modes of interaction that affect the child's cognitive processes.²

A second body of variables believed to influence the language development of youth is paternal in origin.³ Studies in this area examined such concerns as parent-child linguistic interactions, quality and quantity of parental speech as it affects the child's language development and the role of parents in teaching vocabulary to children as well as parental influence on children's reading readiness.

Language and social class have attracted considerable research interest. Although distinct linguistic variation between each social class level has been noted, the majority of these studies examined

²loc. cit., p. 103.
language as a problem area within the lower class, especially among lower class (disadvantaged) youth. Bear suggested that one difficulty in researching any aspect of "disadvantagedment" is that the experts were not in agreement on what it means to be disadvantaged— who they were and how they got that way. Three alternate approaches to the nature of disadvantagedment cited by Bear were: (1) the deficit model, (2) the cumulative model, and (3) the socialization model. Bear argued that while any of these approaches to the study of the disadvantaged was tenable, the researcher should decide on his position in this regard, before formulating his experimental design.

In a landmark study of sub-cultural variation in language functioning, Bernstein identified 'public' or lower class and 'formal or elaborated' linguistic characteristics among the British. He characterized public language as:

(1) Short, grammatically simple, often unfinished sentences

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1Bear, Roberta, "Issues in Early Learning and Pre-School Education," in Hess and Bear, op. cit., pp. 223-30.

2"Disadvantagedment" = the state of being disadvantaged.

3Deficit model asserts that lack of stimulation leads to retardation in time or even the lack of appearance of a certain skill. loc. cit., p. 227.

4Cumulative model asserts that the damage done by deprivation is not specific, but that the degree of retardation and the nature of the deficit change with prolonged deprivation. loc. cit., pp. 227-28.

5Socialization model asserts that the child doesn't fail to learn or to develop through time, but that he learns the wrong behaviors and develops inappropriate skills. loc. cit., p. 228.

6Brookover and Erickson, op. cit., pp. 60-61.
with a poor syntactical form stressing the active voice.
(2) Simple and repetitive use of conjunctions (so, then, because).
(3) Little use of subordinate clauses to break down the initial categories of the dominant subject.
(4) Inability to hold a formal subject through a speech sequence; thus facilitating a dislocated informational content.
(5) Rigid and limited use of adjectives and adverbs.
(6) Infrequent use of impersonal pronoun as subjects of conditional clauses of sentences, e.g. "one."
(7) Frequent use of statements where the reason and conclusion are confounded to produce a categoric utterance.
(8) A large number of statements or phrases which signal a requirement for the previous speech sequence to be reinforced: Wouldn't it? You see? You know? etc. This process is termed "sympathetic circularity."
(9) Individual selection from a group of idiomatic phrases or sequences will frequently occur.
(10) The individual qualification is implicit in the sentence organization; it is a language of implicit meaning.

Whereas formal language is identified by:

(1) Accurate grammatical order and syntax regulate what is said.
(2) Logical modifications and stress are mediated through a grammatically complex sentence construction, especially through the use of a range of conjunctions and subordinate clauses.
(3) Frequent use of prepositions which indicate temporal and spatial contiguity.
(4) Frequent use of the impersonal pronoun "it," one.
(5) A discriminative selection from a range of adjectives and adverbs.
(6) Individual qualification is verbally mediated through the structure and relationships within and between sentences.
(7) Expressive symbolism discriminates between meanings within speech sequences rather than reinforcing specific dominant words or phrases and/or accompanying the sequence in a generalized diffuse, manner.
(8) A language use which points to the possibilities inherent in a complex conceptual hierarchy for the organizing of experience.

Bernstein maintained that children from well-educated families were influenced by public as well as formal language.

To the extent that the more common cultural norms of behavior in various sub-societies are in harmony with those of the educational system, the child from these groups may be
advantaged in acquiring the patterns of behavior taught in school. Also, to the extent that the common norms of behavior in sub-societies are divergent or different from those that are expected in the school, the children may be disadvantaged in school learning. The language acquired is probably more crucial than any other aspect of behavior.¹

What implications do Bernstein's findings have for educational personnel and others dealing with members of the lower class?

Deutscher² suggested that Bernstein's observation of the "social class relationship between verbal fluency and role-taking ability"³ had ramifications for those attempting to communicate with the lower class.

Bernstein provides a clue to methods of tapping lower-class communication channels when he observes that, "In restricted codes, to varying degrees, the extra-verbal channels become objects of special perceptual activity," in elaborated codes it is the verbal channels.⁴

Thus, Deutscher stated that what may be crucial in detecting the intent of lower class communication is not the verbal clues but the non-verbal signals—gestures, facial expression, etc. engaged in by lower class individuals.⁵

Most research on language facility and performance of sub-populations is conducted with the continuing assumption that language development and ability are necessary for effective

¹ibid.


⁴ibid.

⁵For a further discussion of sub-cultural variation in language by social class see Cazden, Courtney, "Sub-Cultural Differences in Children's Language," Merill Palmer Quarterly, XII (July 1966) 185-219.
learning. Studies of sub-population variances in language, then, identify differences and/or deficiencies with the expectation that some corrective, developmental, or language intervention program will compensate for the deficiencies and minimize the differences that seem to impair learning.\(^1\)

Typical of this research was a study by Worley and Story\(^2\) examining the relationship between SES and the language facility of beginning first graders. Findings reported in this study showed a difference of over one year (1-2) between the means of the High and Low SES groups, in favor of the former.

It is clear from this study that great masses of beginning first grade children across the nation from economically impoverished circumstances may have a decided language disadvantage when they enter school, an estimated high of one million children. There can be no doubt of the need for programs like Head Start.\(^3\)

In a review of research on project Head Start, Grotberg\(^4\) cited numerous studies dealing with the linguistic functioning of disadvantaged youth,\(^5\) some of which are discussed on the following pages.


\(^3\)loc. cit., p. 402.

\(^4\)Grotberg, op. cit., pp. 5-9.

\(^5\)NOTE: While in the studies reported here social class is a significant variable in terms of language functioning, contradictory findings are available. For example, Reid and Schoer, in a study of SES and reading achievement, noted "no interaction" between social class and WISC subtest scores. Reid, William and Schoer, Lowell A., "Reading-Achievement Social-Class and Subtest Patterns on the WISC," The Journal of Educational Research (July-August 1966), 469-71.
Beller (1967) administered the Illinois Test of Psycholinguistic Ability\(^1\) to a group of disadvantaged children entering nursery school. Language development among these boys and girls was found to be eight months behind the national norm. A second study reported by Grotberg, dealing with urban inner-city children, was conducted by Alexander (1966a). Picture vocabulary tests administered on a pre-post full year Head Start basis indicated that these children had improved measurably in vocabulary, with the boys scoring significantly higher than the girls.

Parker (1958) investigated the influence of English speaking children on Mexican-American children with a bilingual background. Significant improvements in language as measured by the ITFA were noted at the end of a six month period. Parker concluded that there was little to be gained from stressing the use of Spanish in a class.

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\(^1\)Controversy has arisen both over the extent to which standardized intelligence tests are culture free and over the interpretation of these test results.

The concern for culture free testing is a key issue in any proposed effort in this area (testing general intelligence), but researchers are moving toward measures of the nature of children's abilities based on and couched within their own cultural milieus. As Stodolsky and Lesser point out

. . . the ability (aptitude) versus achievement distinction has been attenuated. Intelligence tests must now be thought of as samples of learning based on general experiences. A child's score may be thought of as an indication of the richness of the milieu in which he functions and the extent to which he has been able to profit from that milieu.

linguistically mixed. On the other hand, the use of English in this situation seemed desirable.

Lower class children have been described as having various kinds of language related problems. Some of Deutsch's initial postulations that children from a noisy environment in which directed and sustained speech stimulation are rare would be deficient in the recognition of speech sounds and would have difficulty in skills which required auditory discrimination, such as reading, have been extensively supported. Other findings indicate that lower class children are poorer readers and also have poor auditory discrimination. Language development and use have a universal sequence: listening, speaking, reading and writing. Therefore, in view of the deficiency caused by poor auditory skill in the foundation of language development, the number of communication difficulties among lower class children is not unexpected. Milner investigated the background of black children who scored low on a reading readiness test. These children were predominantly from lower class homes where there were few books and little interaction between parents and children. Lower class children used fewer words, non-standard English, and short, less complex sentences.¹

In her Review of Research, Grotberg² summarized the relevant findings dealing with the language of disadvantaged children.

(1) The studies on language of disadvantaged children suggest that their language development is generally below that of middle class children.
(2) Environmental factors seem to account for a large portion of the difference; however, ethnicity may account for variation among sub-populations.
(3) Foreign language speaking parents and bi-lingual children do not appear to be handicapped in terms of intelligibility and articulatory status of their language performance.
(4) Further, the language behavior of the parents is a more reliable predictor of children's language than socio-economic status.
(5) Experiments in language programs suggest that children benefit from many kinds of language interventions, but that a more structured program is generally more effective than an unstructured one; when significant gains are found, they

¹Boger and Ambron, op. cit., pp. 22-23.
tend to be found as a result of a more structured curricu-

A cursory glance at the literature on social adjustment indi-
cated that the adjustment of students on all academic levels was of

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1 NOTE: For additional information on language functioning, including factors not discussed in this thesis, see:
(c) Willerman, Emily et al., A Digest of the Research Activities of Regional Evaluation and Research Centers for Project Head Start. Microfilm edition, Educational Resources Information Center No. ED 023 446 (January 15, 1968), pp. 29-34.

The following is a bibliography of adjustment studies ranked from early elementary through college. It is presented to sub-

2 stitute the contention that student adjustment, "on all academic
levels," interests the social scientist.
(a) Witherspoon, Ralph L., "Effects of Tri-mester School Opera-
(c) Douglas, W. B.; Ross, J. M. and Copper, J. E., "The Relation-
(e) Douglas, J. W. B. and Ross, J. M., "Adjustment and Educa-
tional Progress," British Journal of Educational Psychology, XXXVIII (February 1968), 2-4.
(f) Crites, John O. and Semler, Ira J., "Adjustment, Educa-

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Of special interest is the adjustment of exceptional children, those with physical, mental, and social disabilities which potentially impede their adaptation to the educational environment. Thus, the adjustment of both "normal" students and those with special adaptive difficulties pose crucial questions which challenge the talents of behavioral scientists.

Researchers have conceptualized the operationalized adjustment from various viewpoints. The teacher's perspective has yielded adjustment as classroom management, discipline, or broadly stated, student behavior. The student angle of adjustment has been explored in terms of "problem behavior," "disruptive classroom behavior," "aggression," and "social behavior," to cite a few.

The following are examples of research interest in the educational adjustment of exceptional students:


(c) Conde, C., "School for the Migrant Child," American School and University, XXXVI (June 1964), 34-36.

It is the object of the segment of Related Literature to review the independent variables, shown in prior research, to influence students' adjustment to the classroom situation in whatever form the adjustment was investigated.

"The two major socializing institutions of the society—the family and the school . . ."\(^1\) maintain as their primary adult role enactors, parents and teachers. "The importance of the adult as the dispenser of attention and affection to the child and the importance of the child's having developed a trusting relationship to adults . . ."\(^2\) have been underscored as crucial to personal, social, and cognitive development in young children. The point to be made is that one might expect the child's classroom adjustment to vary according to his experiences with his family in the home and his teacher in the classroom.

In a study of classroom behavior among aggressive and non-aggressive students, Thurston\(^3\) examined the influence of family structure and interaction patterns, background, siblings and parental control. Data were obtained on child rearing practices, methods

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\(^1\)Hess, Robert D., "Early Education, as Socialization," in Hess and Bear, op. cit., p. 1.

\(^2\)Maccoby, Eleanor E., "Early Learning and Personality," in Hess and Bear, op. cit., p. 196.

of discipline and the major goals of the child and his parents.¹ Findings reported here reaffirmed the importance of the family in all aspects of the child's life.² That is, students exhibiting "disapproved" (teacher-rated) behavior were found to experience the following familial "disadvantages":

1. The discipline by the father is either lax, overly strict, or erratic.
2. The supervision by the mother is at best only fair or it is downright inadequate.
3. The parents are indifferent or even hostile toward the child.
4. The family members are scattered in diverse activities and the family operates only somewhat as a unit or perhaps not at all.³

Mitchell and Shepherd⁴ examined the influence of the child's home environment on academic success and behavioral disorders in Great Britain. Questionnaires mailed to parents of over 6,000 age 5-15-year old school children dealt with behavior, health and family background, including items measuring the frequency and intensity of children's maladjustive behaviors. Analysis of this data revealed that deviancy in the home was significantly related to a lack of


²The family influences much of the child's life. For a "Summary of Parental Influence on Children's Academic Achievement and Cognitive Behavior," see Hess, Robert; Gordon, Ira and Scheinfeld, Daniel in Grotberg, Critical Issues, op. cit., p. 49.

³Thurston, Summary, op. cit., p. 3.


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scholastic attainment and manifestations of behavioral disorders in
the school.

Among lower class children, home and family factors have been
demonstrated to be especially crucial to adjustment since it has been
shown that children at this class level are consistently associated
with both anti-social and asocial forms of deviancy.¹ Leler² studied
Head Start mother, controlling for the amount of time they were
willing to devote to the program. Findings indicated that children
of high participation mothers performed significantly better on
tests of achievement and development than did the children of low
participators.

In the lower class black community, studies of parental influences
have been, in reality, studies of maternal influences, for it is the
mother who has been shown to be the core of lower class, black family.
Bell,³ researching familial factors affecting the education of lower
class children, interviewed 200 Head Start mothers. These inter­
viewees perceived themselves as most influential in their children's
lives, with the teacher a close second and the child's father last.
While 73% had hopes of college for their children, only 23% thought

¹ Havighurst, Robert, "Social Deviancy Among Youth: Types and
³ Bell, Robert P., A Study of Family Influences on the Education
of Negro-Lower Class Children. Project I. Microfilm edition, Educa­
tional Resources Information Center No. ED 025 309 (August 31, 1967),
pp. resume + 37. Produced by National Cash Register Company (Bethesda,
Maryland).
this dream would become a reality. Mothers selected civil rights workers of high standards, morals and courage as models for their sons' emulation, and for their daughters, mothers chose women of talent, achievement, and positive personality. Regarding behavioral models actually encountered, respondents stressed the value of economically responsible male roles and maternally responsible female roles.

Hess and Shipman\(^1\) sought measures of maternal influences potentially predictive of cognitive and social abilities among Head Start children. Although teacher ratings and prior test scores were shown to be more powerful predictors, three maternal characteristics were evidenced to have predictive utility: (1) mother's educational aspirations for the child, (2) openness of mother's responses to child's "difficult questions," and (3) frequency of unrationaled imperative statements made to child.

Involvement of lower class parents in their children's education has been considered of sufficient importance to warrant the enactment of Head Start programs beamed at securing parental participation. And, while strides have been made toward obtaining parental support, problems remain in this area.

Parents of disadvantaged children often verbally place high value on education, indicate a desire for their children to attend school and state that school is very important. However, there may be a lack of consistent support on the part of these same adults in keeping the child in the school situation and providing the encouragement and support for him to achieve. In many cases, the adults are so overwhelmed with problems of their own that they have minimum time to spend in encouraging

\(^1\)Grotberg, "Review of Research," op. cit., p. 32.
their children to participate in the school program. When the teacher or the principal discusses with the parents behavior problems the child has exhibited in school, there may be parental resentment because they see such discussion as simply adding to their own problems; they may also feel that this is just one more example of harassment by authority figures.\(^1\)

Gordon,\(^2\) in a paper entitled "Developing Parent Power," presented the following table (see p. 50) summarizing family factors associated with the child's intellectual and personality behavior and development.

It has been previously stated that teacher influences are significant in shaping students' classroom behavior. Rashid\(^3\) investigated the role of teacher as classroom manager and its affect on (1) culturally defined sex roles, (2) cognitive development, and (3) social development in small children. Regarding social development, Rashid cited a study by Kounin and Gump indicating that aggression and hostility among students was related to punitiveness on the part of their teachers.

Harvey, et al.,\(^4\) in a study of the relationship between teacher beliefs and attitudes and pupil behavior, reported several relevant


\(^4\)Harvey, O. J. and others, Teachers' Beliefs, Classroom Atmosphere and Student Behavior. Microfilm edition, Educational Resources Information Center No. ED018 249' (July 28, 1967), pp. resume + 74. Produced by National Cash Register Company (Bethesda, Maryland).
Family Factors Associated with Intellectual and Personality Behavior and Development

<table>
<thead>
<tr>
<th>Home Characteristic (Home Condition, Parental Behavior, Parental Belief or Personality)</th>
<th>Investigators Indicating This Characteristic as Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Factors</strong></td>
<td>Bernstein</td>
</tr>
<tr>
<td>1. Crowded Homes</td>
<td>X</td>
</tr>
<tr>
<td>2. Ethnicity</td>
<td>X</td>
</tr>
<tr>
<td>3. Father Present</td>
<td>X</td>
</tr>
<tr>
<td>4. Housing, Quality</td>
<td>X</td>
</tr>
<tr>
<td>5. Income</td>
<td>X</td>
</tr>
<tr>
<td>6. Social Class</td>
<td>X</td>
</tr>
<tr>
<td><strong>Parental Cognitive Factors</strong></td>
<td>Bernstein</td>
</tr>
<tr>
<td>7. Academic Guidance</td>
<td>X</td>
</tr>
<tr>
<td>8. Cognitive Operational Level, Style</td>
<td>X</td>
</tr>
<tr>
<td>9. Cultural Activities Planned</td>
<td>X</td>
</tr>
<tr>
<td>10. Direct Instruction of Child</td>
<td>X</td>
</tr>
<tr>
<td>11. Educational Aspirations</td>
<td>X</td>
</tr>
<tr>
<td>12. External Resources (Nursery, Kq.)</td>
<td>X</td>
</tr>
<tr>
<td>13. Intellectuality of Home (Books, etc.)</td>
<td>X</td>
</tr>
<tr>
<td>14. Verbal Facility</td>
<td>X</td>
</tr>
</tbody>
</table>
## Family Factors Associated with Intellectual and Personality Behavior and Development (cont'd)

<table>
<thead>
<tr>
<th>Home Characteristic</th>
<th>Investigators Indicating This Characteristic as Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Verbal Frequency (e.g., Dinner Con.)</td>
<td>Bernstein, Bing, Bronfenbrenner, Coleman, Davis &amp; Mosh, Deutsch et al., Dyk &amp; Witkin, Freeberg &amp; Payne, Gordon, Bradshaw &amp; Freihofer, Hess &amp; Shipman, John &amp; Goldstein, Kagan &amp; Moss, Katkovsky et al., Lesser et al., Lynn &amp; Sawrey, Marans &amp; Lurie, Mischel, Moynihan, Pavenstedt et al., Rietz &amp; Rietz, Sears et al., Smilansky, Strodbeck, Whiting &amp; Child, Wortis et al.</td>
</tr>
</tbody>
</table>

### Parent Emotional Factors

| 17. Differentiation of Self | X |
| 18. Disciplinary Pattern | X, X, X, X |
| 20. Impulsivity | X |
| 21. Internal Control, Belief in | X, X |
| 23. Trusting Attitude | X |
| 24. Willingness to Devote Time to Child | X, X |
| 25. Work Habits | X, X |

findings. Greater abstractness of teaching was associated with greater cooperation, involvement and helpfulness, more activity, higher achievement less nurturance and concreteness on the part of the student. Teachers' resourcefulness was correlated positively with student cooperation, involvement, and activity, and negatively with concreteness of students' responses. Teachers' dictatorialness was negatively associated with student cooperation, involvement, activity, achievement, helpfulness, and positively with concreteness of the students' responses. Punitive teaching correlated negatively with student cooperation, involvement, activity, achievement, and helpfulness, and positively with concreteness of students' responses. All of the above relationships were shown to be statistically significant.

Boger examined the effect of Head Start teachers' ethnic group membership and attitude on their students' classroom behavior. Attitudinal dimensions of teacher behavior sampled included: (1) sensitivities toward child behavior and (2) degree of optimism concerning work in the Head Start program. It should be noted that teachers and students in this research originated from similar socio-economic backgrounds.

Findings reported were (1) Negro and Mexican-American teachers entered the program with more eagerness and empathy, (2) Negro and Mexican-Americans were more optimistic about obtaining positive results, (3) Anglo teachers appeared

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less domineering and authoritative than did Mexican-American and Negro teachers in their attitudes toward child behavior (however, these differences, particularly between Negro and Anglo teachers, tended to decrease with teaching experience), and (4) Negro teachers viewed child behavior as being less environmentally and biogenically determined than did Mexican-American, who, in turn, were more disposed to these views than were Anglo teachers.¹

The influence of teachers' reinforcement style on students' imitative behavior was examined by Feshbach.² Procedures involved showing two films (one film with a positive teacher who rewarded correct responses and ignored incorrect responses and one with a negative teacher) to a group of remedial reading students, 21 middle class and 12 lower class males. Findings indicated that:
(1) middle class children exhibited more imitative behavior than their disadvantaged counterparts and imitated the positive teacher significantly more often. (2) A positive association between teacher ratings of student dependency and imitative behavior was noted for the middle class group.

The interdependency of the elements in the classroom situation is illustrated by the research on ripple effect. This phenomenon occurs when an incident involving a teacher's control actions toward a deviant pupil has measurable effects on pupils who are not targets of, but audiences to, that teacher-deviant interaction.³

¹Ibid.
Studies of the "ripple effect"\(^1\) indicated that students viewed punitive teachers as less helpful, less likable and less fair than supportive teachers. Moreover, students' ratings of seriousness of classroom deviancy were affected by the teacher's management techniques—the more punitive the teacher's responses, the more serious the students considered the deviancy. Biddle and Ellena cited a study by Gnagey (1960) illustrating that if the deviant child accepted the teacher's control technique submissively, audience children rated the teacher as more fair and able to handle students.

Gump and Redl\(^2\) have initiated a body of studies to investigate the influence of variations in activity setting on changes in respondent behavior of participants. These studies and others by Crawford (1957), Rausch \textit{et al.} (1959) substantiated the contention that how participants behave is a function of the activity setting in which they are centered. The applicability of this research to the teacher structuring the classroom situation should be apparent.

A number of studies have been completed utilizing an operant approach to student behavioral adjustment.

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\(^1\)Note: The \textit{ripple effect} model focuses on the dynamics of teacher-student interaction. This process can be seen as somewhat cyclical insofar as stimulus-response webs may be established. For further information dealing with this aspect of student-teacher relationships see:


\(^2\)Biddle and Ellena, op. cit., p. 170.
Fundamentally, operant conditioning is based on the quite general notion that behavior is shaped and maintained by its consequences, that is, that any individual comes to behave as he does in a given circumstance, because the consequences of that behavior are rewarding (reinforcing) for him, or, alternatively, because the consequences of other kinds of behaviors are punishing. From this foundation, the operant conditioners contend that what is necessary in order to change behaviors is to manipulate their consequences in the environment.¹

In much of the operant work both parents and teacher assumed the role of contingency manipulators. Such is the case in a research completed by Briskin and Gardner² dealing with social reinforcement as a means of reducing maladjustive classroom behavior. In this study, socially sanctioned behaviors were strengthened by making teacher's attention and praise contingent upon them. Inappropriate behaviors were met with a "time out" (removal from the room and thus non-attention) administered by the child's mother. Results of this program indicated that the disruptive behaviors of a nursery school child were significantly reduced while appropriate behaviors were increased through a systematized application of behavior modification techniques.

Sapon,³ studying the effect of contingency management on the


verbal behavior of disadvantaged children, found: (1) Disadvantaged children failed to display a significant difference in their response to the same CM (contingency management) procedures that have been demonstrated to be effective when applied to middle class children. (2) Verbal behavior in nursery school age children appeared to be amenable to modification under CM procedures.¹

Racial-ethnic variations have been associated with school adjustment. "Some features of the cultural heritage of the Black American, Mexican American, Puerto Rican and the American Indian conflict with the dominant American culture, making adjustment and acculturation difficult."²

Kohlwes,³ in a study of sex and race differences among disadvantage pre-school children, focused on developmental character-

¹ For additional operant-based research in the area of students' classroom behavior see:
(b) Ellis, Desmond and Hamblin, Robert, Programmed Exchanges and the Control of Aggression. Microfilm edition, Educational Information Resources Center No. ED 010 439 (November 1966), pp. 46. Produced by National Cash Register Company (Bethesda, Maryland).
(c) Baer, Donald M. and Wolf, Montrose M., "The Reinforcement Contingency in Pre-School and Remedial Education," in Hess and Bear, op. cit., pp. 119-29.
(d) McDavid, John W., "The Teacher as an Agent of Socialization" (I. The Teacher as Manipulator of Rewards and Incentives), in Grotberg, Critical Issues, op. cit., pp. 8-10.

² Boger and Ambron, op. cit., pp. 4-5.

istics as his dependent variable. Findings reported for his sample of 368 Caucasian and Negro Head Start children indicated that females were superior in appropriateness of social behavior and mean I.Q. Negro subjects were reported to be more skillful physically and to have better sensory perception than their white counterparts.

Racial differences in elementary school problem behavior were investigated by Phillips. He noted that racial differences in frequencies of inappropriate behavior were greater at the beginning of the school year than toward the end. The following table summarizes Phillips' findings in terms of race and deviancy.

Differences Between Anglo and Non-Anglo Children in Frequency of Problem Behavior at the Beginning and End of the School Year

<table>
<thead>
<tr>
<th>Problem Behavior Variables at Beginning and End of School Year</th>
<th>Subgroup Means</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anglo</td>
<td>Non-Anglo</td>
</tr>
<tr>
<td>Aggression with independence striving:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning (T_1 + T_3)</td>
<td>0.95</td>
<td>0.54</td>
</tr>
<tr>
<td>End (T_2 + T_4)</td>
<td>0.82</td>
<td>1.13</td>
</tr>
<tr>
<td>Active withdrawal:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning (T_1 + T_3)</td>
<td>1.18</td>
<td>1.21</td>
</tr>
<tr>
<td>End (T_2 + T_4)</td>
<td>1.12</td>
<td>1.25</td>
</tr>
<tr>
<td>Emotional disturbance with depression:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning (T_1 + T_3)</td>
<td>1.05</td>
<td>0.52</td>
</tr>
<tr>
<td>End (T_2 + T_4)</td>
<td>1.09</td>
<td>0.71</td>
</tr>
<tr>
<td>Self-enhancement through derogation of others:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning (T_1 + T_3)</td>
<td>0.51</td>
<td>0.29</td>
</tr>
<tr>
<td>End (T_2 + T_4)</td>
<td>0.55</td>
<td>0.54</td>
</tr>
<tr>
<td>Diffuse hyperactivity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning (T_1 + T_3)</td>
<td>0.63</td>
<td>0.49</td>
</tr>
<tr>
<td>End (T_2 + T_4)</td>
<td>0.66</td>
<td>0.71</td>
</tr>
</tbody>
</table>

Note—\(T_1\) = fall, fourth grade; \(T_2\) = spring, fourth grade; \(T_3\) = fall, fifth grade; \(T_4\) = spring, fifth grade.


2loc. cit., p. 900.
Stone\textsuperscript{1} discussed the culture-based adjustment problems faced by the Indian child in school. He indicated that basic differences in perception of the world are evidenced between Indians and non-Indians.

The non-Indian reacts to a made world, while the Indian reacts to the world as it is. Indians are a disadvantaged minority group who have $\frac{2}{3}$ the life expectancy, $\frac{1}{2}$ to $\frac{1}{3}$ the level of education, less than $\frac{1}{3}$ the income, and 7 to 8 times as much unemployment as the national average for all Americans; they also experience poorer health, a higher infant mortality rate, and more frequent illnesses. Many Indians have no desire to integrate into the mainstream of American life, but prefer to retain their own identity.

Philip Montez et al.\textsuperscript{2} assert that culturally-oriented adjustment difficulties are also prevalent among Mexican-Americans. According to these authors:

In California, the Mexican-American student is two years behind the Negro student and three and a half years behind the Anglo-American in scholastic achievement. Since he represents two distinct and often divergent cultures, English-speaking, middle-class oriented schools make assimilation virtually impossible.

The attitudes of other students toward ego have been shown to influence his classroom adjustment. Williams and Cole\textsuperscript{3} found that the individual's self-concept was significantly related to the group

\textsuperscript{1}Stone, Veda, "The Indian Child in the Classroom," The Journal of American Indian Education, III (May 1964), 13-19.


appraisal of him. This finding substantiated

Brookover's contention that communication from significant others affects the self-concept and suggests the feasibility of altering the self-concept by changing the conditions of social status.1

Lorber2 examined the effect of inadequate social acceptance on classroom behavior among disadvantaged fifth and sixth grade children. Findings indicated that children who were socially unacceptable to their classmates tended to manifest disruptive, attention-seeking behaviors. While the converse was plausible (inappropriate behavior may have led to a lack of acceptance), Lorber maintained the primacy of the former relationship.

McNeil3 examined the relationship between both peer and teacher acceptance and the individual's classroom aggressiveness. Teacher-rated aggression was found to be negatively related to social acceptance, while peer-rated aggression was not. The students indicated that the more aggression they displayed, the less accepted they felt in the classroom.

Classroom adjustment has also been shown to be affected by school curriculum. In the case of the Head Start project and other programs of compensatory education, student adjustment is often of major concern to curriculum builders. Considerable research

1loc. cit., p. 480.


attention has been directed toward the Bereiter-Engelmann language curriculum. Rusk\(^1\) (1967) studied the impact of six week B-E structured program on 120 children and compared them to a similar number of children in a less structured setting. Although the Bereiter-Engelmann group made greater gains, these gains were not statistically significant. Problems may have arisen in that the children were tested on the Engelmann Concept Inventory which is related to the B-E curriculum and, consequently, may have reflected what was taught. In a second study of the Bereiter-Engelmann program, Reid and Atkin\(^2\) failed to find a significant difference between verbal enrichment children and the B-E group. Krider and Petsche\(^3\) studied the effects of a pre-school Head Start enrichment program on the academic and social skills of five year old children. The Head Start group was found to be significantly better adjusted than a matched non-Head Start sample. However, regarding intellectual ability and level of achievement, Krider and Petsche failed to find a significant difference.

Based on interviews with first grade teachers, Mentzer\(^4\) attempted


\(^2\) ibid.


\(^4\) Mentzer, Ray T., "Head Start?" Young Children, XXIII (May 1968) 281-84.
to evaluate the effects of a kindergarten Head Start program in Brockton, Massachusetts. Seventy percent of the teachers felt that the Head Start graduates seemed to accept discipline more readily than other students in their first grade classes. These children seemed more capable of socializing with peers according to sixty percent of the teachers. Half of the respondents indicated that the Head Start subjects were more inquisitive, more highly motivated, and superior in verbal skills.

In a study of the influence of the Head Start program participation on the development of self-other relationships, Lamb and others\(^1\) found that:

The Head Start experience produced positive changes in self and self-other relationships. Head Start children gained a perception of self as being similar to others and tended to maintain self as central. Controls showed a shift toward lower self-esteem and a lack of change from a self-different to self-same response.

McNamara and others\(^2\) examined the effects of Head Start experience on self-concept, social skills and language skills among 180 Negro children. Findings reported that the Head Start subjects performed significantly better on tests of social skills, self-concept and language than did a matched non-Head Start group.

\(^1\)Lamb, Howard E. et al., The Development of Self-Other Relationships During Project Head Start. Microfilm edition, Educational Resources Information Center No. ED 015 008 (1965), pp. resume + 181. Produced by National Cash Register Company (Bethesda, Maryland).

CHAPTER IV

THE RESEARCH METHODOLOGY

Chapter IV is divided into four sections. Section one discusses the population, sample and research site from a previous related study which provided the basis for the current work. The second section presents operational definitions of the major variables. Data collection techniques are dealt with in the third section, and in section four data analysis procedures are discussed.

Population, Sample and Research Site

The general student population from whom data were collected for this study included all inner-city children in a midwest metropolitan city of approximately 384,000, who were eligible for the Head Start Program funded by the Office of Economic Opportunity. During the spring of 1967, the teachers and administrators of eighteen schools in the inner-city, which was defined as a poverty target area by OEO criteria, assembled the names of those children who were qualified to enter Head Start in the following fall (approximate N = 1000).

In August 1967, 180 of these pre-school children were randomly assigned to each of two experimental Head Start programs, the highly

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2For a statement of OEO poverty criteria and the economic information sheet filled out by prospective Head Start parents see Appendix 7-A.

3Erickson, op. cit., p. 12.
structured Bereiter-Engelmann 1 and a less structured Enrichment pro-
gram. 2 Parents of eligible children were contacted by the Head Start
teachers and encouraged to enroll their children in pre-school Head
Start. While teachers had no jurisdiction in the selection of stu-
dents, they were, however, commissioned to facilitate the replacement
of children who left the program. Replacements were recruited from a
second randomly drawn list. Only those children who participated in
one of the experimental programs for a minimum of seven months were
included in the findings of this study.

Surveillance of experimental Head Start was deemed necessary to
insure that each program was conducted in keeping with its original
guidelines. To avoid teacher perceptions of undue pressure from with­
out, it was decided to perform the classroom "visits" as inconspic-
uously as possible. Consultants and research associates 3 who visited
Head Start classrooms concluded that:

. . . no teachers in Experiment A (Bereiter-Engelmann) were
observed in activities which were not in accord with the
guidelines for Experiment A. The conclusion of all ob­
ers was that, while there was more variation among Ex­
periment B (Enrichment) classes than among Experiment A

1 For a description of the Bereiter-Engelmann language curriculum
and examples of the program in operation see Appendix 7-B.

2 For a description of the Enrichment program, excerpted from
Parks, Carol Varner, "A Nursery School for Deprived Children: Philo-
sophy and Content of Unstructured Program," in Erickson et al.,
op. cit., pp. 158-59, see Appendix 7-C.

3 Erickson, Edsel et al., A Study of the Effects of Teacher
Attitude and Curriculum Structure on Preschool Disadvantaged Children
(Annual Progress Report I, Contract No. OEO-4150), Office of Economic
Opportunity, Division of Research and Evaluation--Project Head Start,

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classes, no classes in Experiment B were similar to classes in Experiment A either in terms of content emphasis or pre­dominant method of instruction.

Prior to school opening in the fall of 1968, research limitations were imposed by the manner of the children's assignment to a particular kindergarten program. The following is a description of the nature of these limitations:

For example, it was impossible to use random numbers for assignment because of our need to have as many students in the Bereiter-Engelmann kindergarten as possible who had previous training in one of the pre-school experimental programs. . . . As a consequence of the above assignment procedures, there were in the second year of our study six categories of students grouped on the type of preschool and kindergarten program experienced. These were as follows:

<table>
<thead>
<tr>
<th>Experimental Category</th>
<th>N</th>
<th>Type of Preschool Experience plus Type of Kindergarten Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>120</td>
<td>Bereiter-Engelmann (full year) Bereiter-Engelmann</td>
</tr>
<tr>
<td>II</td>
<td>120</td>
<td>Enrichment (full year) Bereiter-Engelmann</td>
</tr>
<tr>
<td>III</td>
<td>60</td>
<td>Control Group Bereiter-Engelmann</td>
</tr>
<tr>
<td>IV</td>
<td>60</td>
<td>Bereiter-Engelmann (full year) Bereiter-Engelmann</td>
</tr>
<tr>
<td>V</td>
<td>60</td>
<td>Enrichment (full year) Regular Enrichment</td>
</tr>
<tr>
<td>VI</td>
<td>120</td>
<td>Control Pool Regular Enrichment</td>
</tr>
</tbody>
</table>

The sample (N = 80) examined in the current study was drawn from each of the four experimental groupings (I, II, IV, V) listed above. It was decided that preschool program variations were sufficiently controlled in that each group of children participated in only one of the two experimental programs. (Recall that program surveillance observations indicated that the two programs did not overlap in either

---

1 Kindergarten programs were either of the Follow Thru variety which emphasized the Bereiter-Engelmann curriculum or the Regular kindergarten which did not include the B-E program.

content or method of instruction.) Since this thesis is concerned, in part, with the influence of Head Start experience on adjustment, a control sample, which did not participate in either experimental program, was not deemed relevant here. Moreover, these control group children have been subjected to rigorous testing elsewhere.

Sampling in this study was non-random because a relatively equal number of subjects was sought for study in each of the four experimental groups. Also, within each program a uniform distribution of male-female, white and non-white children was desired. Equal distribution of subjects among the four programs was not completely achieved due to errors in program classification, school absences on testing days, and changes in residence. Characteristics of the sample important to the concern of this thesis are summarized in Table 4.1.

Table 4.1—Proportion of Head Start Sample by Sex, Racial Identity, Intactness of Family, and Language Used in the Home on the Basis of Pre-school and Kindergarten Experiences

<table>
<thead>
<tr>
<th></th>
<th>Bereiter-Engelmann Kindergarten</th>
<th>Regular Kindergarten</th>
<th>Total All Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Non-White</td>
<td>76</td>
<td>70</td>
<td>92</td>
</tr>
<tr>
<td>Broken Family</td>
<td>48</td>
<td>45</td>
<td>04</td>
</tr>
<tr>
<td>Non-English Speaking Hime</td>
<td>14</td>
<td>05</td>
<td>04</td>
</tr>
</tbody>
</table>

1Erickson et al., Final Report, op. cit.
Description of the Sample. As shown in Table 4.1, a relatively equal distribution of subjects on the variable of sex was achieved in that 54% were male and 46% female. Racial composition was dichotomized into white and non-white children. The 81% non-white sample was composed, for the most part, of blacks, with a small percentage of Mexican-American and Indian children. Twenty-eight percent of the Head Start children originated from broken homes. Erickson\textsuperscript{1} stipulated the following criteria for family intactness:

Families were considered broken if the child currently lived with one parent only, grandparents, foster parents or others. The families were considered intact if the children lived with a mother and father, a mother and stepfather, or a father and stepmother.

Spanish and Dutch were the two major languages other than English spoken in the home. Since only 8% of the homes were non-English speaking, bilingualism was not assumed to be an overriding characteristic of this sample.

Major Variables and Instrumentation

Pre-school Standard Language Fluency. Data on standard language fluency was obtained from the pre-school sample prior to the completion of the school year.

Near the end of the preschool period (May, 1968) academic achievement and school record data were obtained from all pre-school children present on the testing days who were in the Bereiter-Engelmann (N=136) and Enrichment (N=138) programs.\textsuperscript{1}

Among the achievement tests administered were the Stanford-Binet

\textsuperscript{1}Erickson et al., Final Report, op. cit., p. 15.
\textsuperscript{2}loc. cit., p. 21.
Intelligence Test and the Caldwell Associative Vocabulary Test. The children's scores on these tests constituted two measures of the major independent variable—standard language fluency. The Stanford-Binet and Caldwell were chosen as appropriate measures of standard language fluency under the assumption that, in order to successfully complete these achievement tests, the students had to be proficient in the standard language in which the tests are written. It was assumed further that the higher one's S-B and Caldwell test scores, the greater his standard language fluency, and conversely.

One additional measure of standard language fluency was sought, one based on teacher ratings. To quote again from Erickson:

In addition to the usual standardized instruments mentioned above, it was decided to take into account the teachers' estimates. Teacher estimates, however, can easily be biased by their preference for one program or another, their sense of surveillance, etc. It was decided that one way of overcoming experimental bias was to make the experiment more unobtrusive by having school administrators announce to all kindergarten teachers that the rating scales would be filled out on all children as part of normal record keeping and be placed in the files for the following years' teachers. It was then possible to pick out the rating sheets of those sampled for testing.

Consequently, kindergarten teachers were provided with the Developmental Profile Scale (see Appendix 7-D) to evaluate each subject on the following dimensions:

1. Reality Orientation
2. Social Behavior
3. Language and Speech Behaviors
4. Work Habits
5. Temperament
6. Health and Physical Development
7. Home

1loc. cit., pp. 28-29.
The Developmental Profile Scale was designed employing the Likert scaling method. Thus, the dimension of language and speech behavior was ranked from the low of "no language development" to the highest value of "spontaneous communication," with the intermediate distinctions of "immature language development," "expressive and understanding language usage," and "communicative responding."

Table 4.2—Correlation Matrix of Standard Language Fluency Measures

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher-rated Language</td>
<td>1</td>
<td>/</td>
<td>.43</td>
</tr>
<tr>
<td>Stanford-Binet</td>
<td>2</td>
<td>/</td>
<td>.45</td>
</tr>
<tr>
<td>Caldwell</td>
<td>3</td>
<td></td>
<td>/</td>
</tr>
</tbody>
</table>

Three measures of standard language fluency have been presented: the Stanford-Binet Intelligence Test, the Caldwell Associative Vocabulary Test, and teacher ratings of language and speech behaviors.\(^1\) Each measure of language fluency was examined independently in terms of its effect on classroom adjustment. The rationale for this decision stemmed from Table 4.2 which indicated that inter-correlations were not sufficient to warrant a uni-dimensional measure of language.

**Classroom Adjustment.** Two sources of adjustment data were tapped

---

\(^1\) Teacher-rated language was eliminated from the final analysis because it violated the temporal sequence developed in the research design. The major variables were designed to be measured independently of each other and not coterminously. Teacher-rated language measures were obtained, at the same time as teacher-rated adjustment.
for the purposes of this study: (1) teacher ratings and (2) classroom observations.

The Developmental Profile Scale was once more the rating instrument. Of the DPS's seven characteristics, the four which related to adjustment were: reality orientation, social behavior, work habits, and temperament. Social behavior and work habits were selected as the most appropriate measures of adjustment for this thesis on the basis of the operational definition of classroom adjustment (student's adaptation to teacher-formulated norms). It was assumed that the teacher is aware of which students abide by her norms in terms of work habits and social behavior. It is doubtful that rigid teacher-set norms exist regarding reality orientation and temperament. If such norms do exist, adjustment to them may be difficult to measure, due to the more abstract nature of the terms "temperament" and "reality orientation."

Classroom observations of student adjustment were conducted from January to June of 1969. Observers were provided with the Behavioral Deviancy Checklist (see Appendix 7-E) to use to evaluate selected Head Start children. This checklist consists of behaviors which small children may perform in the classroom, such as talking to others, touching the teacher, throwing learning materials, etc. None of these

---

1For information on factors influencing teacher ratings of their students see:
(b) Rotter, George, Effects of Class and Racial Bias on Teacher Evaluation of Pupils. Microfilm edition, Educational Resources Information Center No. ED 010 092 (October 1966), pp. resume + 180. Produced by National Cash Register Company (Bethesda, Maryland).
behaviors is deviant in and of itself; teacher norms must be implicated before the potential for deviancy exists.

Three qualifications should be noted regarding the student deviance observed here. First, teacher norms were not universally applied to all students in all instances. This compounded the task of observing normative deviation. Second, behaviors adjudged deviant in one context or classroom activity were sanctioned in other contexts. For example, while the story lady was reading to the children, talking to others was non-normative; during the free play period this verbal behavior was sanctioned. Third, student deviance referred solely to teacher norms and in no way related to the full range of normal behavior proper to a five year old child.

Classroom adjustment in this case was measured quantitatively, i.e., frequency counts were obtained on specific maladustive (deviant) behaviors performed by the children. Behavioral deviancy and normative violation were related such that the greater the frequency of a certain non-normative behavior, the less well-adjusted the child was considered in terms of that specific teacher-set norm.

Table 4.3 presents a correlation matrix of all the adjustment measures obtained in this study. Based on this information, two decisions were made regarding adjustment analysis. First, it was decided to utilize only one of the teacher-rated adjustment measures (social behavior). This decision stemmed from the high degree of positive

---

Table 4.3—Correlation Matrix of Classroom Adjustment Measures

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Behavior</td>
<td>1</td>
<td>.67</td>
<td>.05</td>
<td>.06</td>
<td>.01</td>
<td>.00</td>
<td>.10</td>
<td>-.06</td>
<td>.07</td>
</tr>
<tr>
<td>Work Habits</td>
<td>2</td>
<td>.19</td>
<td>.13</td>
<td>.07</td>
<td>.13</td>
<td>.29</td>
<td>.01</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Talking to Teacher</td>
<td>3</td>
<td>.05</td>
<td>.57</td>
<td>.36</td>
<td>.02</td>
<td>-.01</td>
<td>-.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touching Self</td>
<td>4</td>
<td>.04</td>
<td>-.04</td>
<td>.00</td>
<td>.03</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking to Others</td>
<td>5</td>
<td>.64</td>
<td>-.01</td>
<td>-.04</td>
<td>.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touching Others</td>
<td>6</td>
<td>.31</td>
<td>-.12</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Striking Others</td>
<td>7</td>
<td>.33</td>
<td>.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaving Assigned</td>
<td>8</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td>6</td>
<td>.64</td>
<td>.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>/</td>
<td>.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locomotive Movements</td>
<td>9</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

correlation between work habits and social behavior. It was felt that, since they apparently measured the same factor, the use of both indices would entail needless repetition. Second, due to the high inter-relationships among talking to teacher, talking to others, and touching others (see insert 4.3a), it was concluded that these items should be summed and considered as a separate adjustment measure. ¹

Social Context Variables. As stated previously, it was decided to

¹For ease of interpretation, it was decided to limit the variety of adjustment measures analyzed in the findings chapter. Thus, only the following measures of adjustment were considered: (1) talking to teacher (observed), (2) social behavior (teacher-rated), and (3) rate of student absences.
investigate the possibility of causal linkage between five social
countext variables and adjustment, with language as an intervening
variable. The rationale for the selection of these factors for causal
analysis was based on the adjustment literature. On this basis the
following social context variables were incorporated in path models:
(1) family intactness, (2) race, (3) SES, (4) number of siblings per
family, and (5) preschool socialization.

Data Collection Procedures

During the spring of 1968, preschool standard language data on
the experimental subjects were collected. The Stanford-Binet Intelli-
genence Test and Caldwell Associative Vocabulary Test were administered
to Head Start children in attendance on testing days (N=274). Al-
though both tests were conducted within the Head Start schools, chil-
dren were removed from the classroom for the duration of the indi-
vidually administered Stanford-Binet test. Erickson1 indicated that:

Perhaps the manner in which the tests were administered deserves
some comment. It was decided that individual investigators
might favor one experiment over another without being aware
of their biases. As a consequence, Dr. Frank Heger, then in
charge of psychometric training at Western Michigan University,
was asked to instruct and supervise 15 graduate students in
psychometric training . . . . Children in the sample were assigned
to the psychometric trainees for administration of the Stanford-
Binet.

Kindergarten adjustment data were obtained from teacher ratings
and classroom observations one year later. The following procedure
was employed:2

1Erickson et al., Final Report, op. cit., p. 27.
2loc. cit., p. 30.
All kindergarten teachers were asked, as part of the regular data collection program, to rate each of their children on the Development Profile Scales. The major adjustment items on which the teachers rated their children from "1" — low — to "9" — high — were as follows:

1. Reality Orientation
2. Social Behavior
3. Work Habits
4. Temperament

Classroom observations of student adjustment were completed in the spring of 1969. One intent of these observations was to rate children's adjustment to their kindergarten teacher's norms from the viewpoint of individuals who were not ordinarily members of the classroom community. Consequently, elementary education students from Western Michigan University, near the research site, were chosen as observers. Each observer was provided with copies of the Behavioral Deviancy Checklist and a sample of approximately four children per classroom which he was assigned to study. No more than two observers were simultaneously present in one classroom. The collegians were instructed to note only the children's non-normative behaviors and tally these in the appropriate columns provided on the checklist.

Teachers aided the observers in their task of remaining as inconspicuous as possible. Initially, the teachers rationalized for the children the presence of others in the classroom—e.g., '... our visitors today are our friends who have come to see what fun we have in school.' Second, teachers were instrumental in identifying the children without interrupting normal classroom functioning—e.g., '... Susie Smith and Johnny Jones, would you please tell us what

---

1 Teacher-rated language measures were obtained coterminously with teacher-rated adjustment on the Development Profile Scale.
the weather bird says today? The two children would perform the task before the class and thus be identified for the purpose of observation.

The final data collection procedure to be discussed in this section relates to the social context variables. Information regarding these variables (SES, race, etc.) was provided by the child's parents during the interviews which preceded his entry into the Head Start program. This information gathering instrument, the Characteristics of Students sheet (see Appendix 7-F), included items indicating type of residence, language used in the home, birth rank in family, and educational level of parents, as well as data on the five social context variables previously cited.

Data Analysis Procedures

The fundamental concern in data analysis was to determine if standard language fluency had any forecasting efficacy for classroom adjustment. Two questions of analysis asked in this regard were:

1. Were errors in the prediction of classroom adjustment reduced by knowledge of one's standard language fluency?

2. How much variation in student adjustment was accounted for by standard language fluency?

In an attempt to answer the first analytical question, the "G" (Guttman's coefficient of relative predictability) was utilized. This statistic was deemed appropriate in terms of the empirical concerns of this thesis (determining if standard language as a predictive factor increases the ability to forecast adjustment). The following characteristics regarding the use of the "G" should be kept in mind:

1. The coefficient of relative predictability measures the extent to which the use of other predictive variables reduces the percentage of error in prediction.

2. The coefficient of relative predictability expresses the change in the number of errors as a proportion of the original number of errors when predicting from the marginal totals.

3. The "G" utilizes modal categories as a basis for prediction which may mask "considerable correlation between the predictive instrument and the variable to be predicted."2

In response to the second research question regarding variance in adjustment, a correlation matrix of the language and adjustment measures was formulated. Based on these Pearson r's, the amount of variation in adjustment explained by language fluency was then calculated. These totals provided a second indicator of the efficacy of language as an adjustment forecaster.

Of secondary interest in the analysis were the potential causal linkages between the five social context variables, language fluency, and student deviance. After preliminary analysis of the data, the possibility of language as an intervening variable between adjustment and the social context factors was apparent. To determine the linkages between these variables, path models were chosen as the analytical tool. In path analysis the concern is with "linear, additive, asymmetric relationships among a set of variables which are conceived as being measurable on an interval scale."3 Analysis of this sort was

---

1 Note that "... there is no known sampling distribution for "G," so no tests of significance are possible." ibid.

2 loc. cit., p. 217.

premised on path coefficients, i.e., standardized numerical values calculated from beta weights obtained in linear regression analysis.

A vital factor to remember regarding path analysis is that:

Each "dependent" variable must be regarded explicitly as completely determined by some combination of variables in the system. In problems where complete determination by measured variables does not hold, a residual variable uncorrelated with other determining variables must be introduced.

Thus, in the examination of causal linkages the analysis focused on two features of path models: (1) the relative influence of each antecedent variable in question plus the direction of that relationship as evidenced by the path coefficient, and (2) the influence of the residual factor.\(^2\)

\(^1\)loc. cit., p. 3.

\(^2\)"The residual path is merely a convenient representation of the extent to which measured causes in the system fail to account for the variation in the effect variables." Blau, Peter M. and Duncan, Otis Dudley, The American Occupational Structure. New York: John Wiley & Sons, Inc., p. 174.
In this study the major hypothesis was that a student's adjustment to his kindergarten teacher can be forecast on the basis of his fluency with the standard language of the school.

The test of this hypothesis involved assessing the standard language fluency of children immediately prior to their entry into kindergarten. The degree to which these children failed to carry out teacher-set classroom deportment norms is measured after their entry into kindergarten.

Tested in this thesis is the research hypothesis that students' standard language fluency is predictive of—beyond chance expectations—the extent of their deviancy from teacher-set norms. This hypothesis was tested with two generally used measures of standard language fluency and three measures of deviance from teacher-formulated classroom norms. Regarding the major hypothesis, the empirical question of utmost concern asked: Does employing standard language as a predictive variable reduce the errors in forecasting classroom adjustment?

**Major Hypothesis**

\[ H:R_1 \] Standard language fluency is predictive of classroom deviancy from teacher-set norms.

\[ H:R_1 \] Standard language fluency (as measured by the Stanford-Binet Intelligence Test) is predictive of classroom deviancy from teacher-set norms (observed behavioral ratings).
Statistic: Data for the major hypothesis were analyzed using the "G" (Guttman's coefficient of relative predictability).\(^1\)

Findings: \(H: R_{1a}\)

Table 5.1, relating Stanford-Binet test scores to observed adjustment, yielded a "G" of .067. What is known of the association between these two variables based on this figure? Dorhbusch and Schmid\(^2\) suggested that:

Although none of the contingency measures ("G"s) can be directly compared to \(r\), they do provide some indication of the degree of relationship between the two variables.

Table 5.1--The Effect of Standard Language Fluency (S-B) on Classroom Adjustment (Observed)

<table>
<thead>
<tr>
<th>Standard Language Fluency (S-B)</th>
<th>Classroom Adjustment (Observed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Deviant</td>
</tr>
<tr>
<td>Low</td>
<td>7</td>
</tr>
<tr>
<td>Average</td>
<td>22</td>
</tr>
<tr>
<td>High</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
</tr>
</tbody>
</table>

"G" = .067 * = final errors

Thus, no powerful evidence for maintaining standard language as a forecaster of classroom adjustment should be inferred in this case.

---

\(^1\) Four forms of \(H: R_{1a}\), with varying combinations of language and adjustment measures, were analyzed using the "G."

\(^2\) op. cit., p. 217.

\(^3\) The total number of deviant students does not equal 33 in Table 5.1. This occurred because data were not available on the S-B scores for two subjects in this category.
H:R<sub>1</sub> Standard language fluency (as measured by the Caldwell 
Associative Vocabulary Test) is predictive of classroom 
deviancy from teacher-set norms (observed behavioral 
ratings).

Findings: H:R<sub>1</sub>

Relative to the above hypothesis, data (shown in Table 5.2) in-
dicated no relationship ("G" = .00) between the measure of standard 
language and observed student adjustment. In a case such as this 
where no association between the two variables was evident from the 
analysis of the data, it can reasonably be assumed that knowledge of 
the student's language fluency in no way increased the ability to 
predict his adjustment, i.e., original number of errors equals final 
number of errors.

Table 5.2—The Effect of Standard Language Fluency (Caldwell) on 
Classroom Adjustment (Observed)

<table>
<thead>
<tr>
<th>Standard Language Fluency (Caldwell Test)</th>
<th>Classroom Adjustment (Observed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Deviant</td>
</tr>
<tr>
<td>Low</td>
<td>11</td>
</tr>
<tr>
<td>Average</td>
<td>15</td>
</tr>
<tr>
<td>High</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
</tr>
</tbody>
</table>

"G" = .00  * = final errors

H:R<sub>1</sub> Standard language fluency (as measured by the Stanford-
Binet Intelligence Test) is predictive of classroom 
deviancy from teacher-set norms (teacher-rated).

Findings: H:R<sub>1</sub>

In Table 5.3, standard language fluency as measured by the 
Stanford-Binet was related to teacher-rated adjustment. Some evidence
for the utility of language as a predictor of classroom adjustment was suggested by a "G" of .24. However, the reader should be cautioned that where the original error in prediction is great, it is likely that any variable within reason will increase predictive efficiency. In contrast, where the initial number of errors in prediction is small, it may be more difficult to improve on the task of prediction. In keeping with this principle, the initial predictive error of 29 (see Table 5.3) is relatively large and could be improved upon. As has been shown, the addition of standard language reduced the predictive errors in adjustment to 22, thus the "G" of .24. Were the initial error in this instance less sizable, additional problems in obtaining a "G" of this magnitude may have been encountered. To clarify the point, Dornbusch and Schmid\(^1\) stated that:

> ... a prediction table can produce more easily a high positive G where marginal totals are almost equal and there is a relatively high original error.

Table 5.3--The Effect of Standard Language Fluency (S-B) on Classroom Adjustment (Teacher-rated)

<table>
<thead>
<tr>
<th>Standard Language Fluency (S-B)</th>
<th>Classroom Adjustment (Teacher-rated)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Deviant</td>
</tr>
<tr>
<td>Low</td>
<td>3*</td>
</tr>
<tr>
<td>Average</td>
<td>21</td>
</tr>
<tr>
<td>High</td>
<td>25</td>
</tr>
<tr>
<td>Total(^2)</td>
<td>51</td>
</tr>
</tbody>
</table>

"G" = .24 \(* = final error

\(^1\)op. cit., p. 217.

\(^2\)The total number of non-deviant subjects does not equal 51 in Table 5.3. This occurred because data was not available on the S-B scores for two students in this group.
H:R Standard language fluency (as measured by the Caldwell Associative Vocabulary Test) is predictive of classroom deviancy from teacher-set norms (teacher rated).

Findings: H:R

Table 5.4 presents data relating language fluency to teacher-rated adjustment. These data yielded a "G" of .17, suggesting that while standard language did contribute somewhat to forecasting efficacy (in this case accounting for 5 predictive errors) the contribution of other factors may be explored.

Table 5.4--The Effect of Standard Language Fluency (Caldwell) on Classroom Adjustment (Teacher-rated)

<table>
<thead>
<tr>
<th>Standard Language Fluency (Caldwell)</th>
<th>Classroom Adjustment (Teacher-rated)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Deviant</td>
</tr>
<tr>
<td>Low</td>
<td>5*</td>
</tr>
<tr>
<td>Average</td>
<td>18</td>
</tr>
<tr>
<td>High</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
</tr>
</tbody>
</table>

"G" = .17  "* = final errors

It is apparent from the four tables presented thus far that the language measures have more predictive efficiency when coupled with teacher-rated adjustment as opposed to observed adjustment.

The reader may recall that one caution has been cited regarding the uncritical use of the "G." A second such warning merits attention at this time, that being

... the use of only modal categories may conceal the existence of considerable correlation between the predictive instrument and the variable to be predicted.¹

¹Dornbusch and Schmid, op. cit., p. 217.
Based on this statement, the following Table 5.5 is presented.

Table 5.5—Correlation Matrix of Standard Language Fluency and Classroom Adjustment Measures

<table>
<thead>
<tr>
<th>Standard Language Fluency Measures</th>
<th>Classroom Adjusted Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teacher-rated</td>
</tr>
<tr>
<td>Stanford-Binet</td>
<td>.34</td>
</tr>
<tr>
<td>Caldwell</td>
<td>.28</td>
</tr>
</tbody>
</table>

Table 5.5 offers evidence of somewhat more substantial associations between language and adjustment, although of a different type, than those obtained from the "G." Based on Pearson product moment correlations, the concept of standard language as a variant of adjustment is more tenable.

Data in Table 5.6 pertain to the amount of variance explained by the correlations between the two variables. Success at explaining variance in adjustment on the basis of language ranged from near zero (4.0%) to almost 12% (11.6%). No elaborate statistical analysis is

Table 5.6—Matrix of Explained Variance for Language and Adjustment Measures

<table>
<thead>
<tr>
<th>Standard Language Fluency Measures</th>
<th>Classroom Adjusted Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teacher-rated</td>
</tr>
<tr>
<td>Stanford-Binet</td>
<td>11.6%</td>
</tr>
<tr>
<td>Caldwell</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

\(^1\) The variable of school absences was introduced as an index of adjustment, assuming that a relationship exists between the amount of time a child is willing to spend in the school situation and his level of adjustment to that situation. The total number of school days missed per school year comprises our measure of absences.
needed to discover that knowledge of pre-school language fluency does little to enhance the researcher's ability to predict student classroom adjustment in kindergarten. Thus, in spite of the statistically significant correlations found between the two variables in four out of six cases, it would be overly generous to maintain language as a primary forecaster of adjustment based on the information in Table 5.6.

What other conclusions can be drawn from the statistical findings proffered thus far? Taking into account the data obtained from the Pearson r's and explained variance, some support for the possible use of language as an intervening variable in path (causal) analysis is suggested. In other words, while language was not shown to be a reliable forecaster of adjustment, sufficient correlation was evident to warrant its use as a possible intervening variable between other variables commonly believed to be associated with adjustment.

The final segment of research findings concerns the exploratory questions posed in the opening chapter. Recall that the variables dealt with in these questions include those cited in the secondary hypothesis, plus language and adjustment. It is the intent of the analysis prompted by these questions to explore the causal linkages between the variables. This was accomplished through causal analysis based on path models incorporating all of the above factors in various combinations.

**Exploratory Questions**

**Exploratory Question One**

How do the five social context variables, plus language as an intervening variable (measured by the Stanford-Binet), interact with teacher-rated adjustment?
Table 5.7 presents a path model dealing with the first exploratory question. Recall that in models of this type several "dependent" variables may be measured simultaneously. In the words of Blau and Duncan:

An important feature of this kind of causal scheme is that variables recognized as effects of certain antecedent factors may, in turn, serve as causes for subsequent variables. Thus, it is necessary to identify the specific "dependent" factor of concern at each phase of the data analysis. To facilitate interpretation of the research findings it is useful to view Table 5.7 as composed of three stages. Stage one consisted of relationships between the social context variables, with family intactness and number of siblings as dependents. In stage two the language measure formed the dependent variable. All paths led to adjustment in stage three.

Stage one assumed race and socio-economic status as causes of family intactness and family size. Path coefficients of .15 and -.14 \((p_{CB} \text{ and } p_{DB})^3\) appeared to substantiate the causal influence of race on the two dependent variables. \(p_{CB}\) suggested that being white (as opposed to non-white) is related to family stability. Also, whiteness appeared to be associated with a smaller number of children per family.

1 op. cit., p. 171.

2 Path coefficients and residuals determined for stage one in Table 5.7 do not vary in the remaining models and thus will not be further discussed.

3 Note that the order of the subscripts is significant, the convention being the same as that used for regression coefficients: the first subscript identifies the dependent variable, the second the variable whose direct effect on the dependent variable is measured by the path coefficient. Duncan, op. cit., p. 4.
Table 5.7—Causal Model with Path Coefficients for Five Social Context Variables, Plus Language (S-B) and Adjustment (Teacher-rated)

Note: In models of this type, "... straight lines stand for causal lines that are to be theoretically expected, dotted lines stand for possible but theoretically debatable causal lines, and curved lines represent unanalyzed correlations among variables, which cannot be assigned causal priority in present data." Sewell, William H., Haller, Archibald O., and Portes, Alejandro, "The Educational and Early Occupational Attainment Process," American Sociological Review, XXXIV (February, 1969), p. 84.
than non-whiteness. \( P_{DE} = .186 \), or the effect of socio-economic status on number of siblings, indicated a direct relationship between SES and family size. One final factor for consideration in stage one was the residual. Residual paths of .987 and .980 indicated that the variation in the effect variables was, for the most part, left unexplained by SES\(^1\) and race. Lest the reader become discouraged regarding the apparently negative findings, Blau and Duncan\(^2\) caution that:

Sociologists are often disappointed in the size of the residual, assuming that this is a measure of their success in "explaining" the phenomenon under study. The fact is that the size of the residual (or, if one prefers, the proportion of variation "explained") is no guide whatever to the validity of a causal interpretation.

According to these authors, the size of the residual is secondary to the assumption that ". . . the unobserved factors it stands for are properly represented as being uncorrelated with the measured antecedent variables."\(^3\)

In stage two of Table 5.7, the major force impinging on standard language fluency was the family. \( P_{FC} = -.15 \) inferred that family instability is linked with above criteria scores on the Stanford-Binet Intelligence Test. Once again, the size of the residual value, .984, indicated that the model variables explain only a minute portion of the total variation in language. Consequently, it may be presumed that some of the predominant influences on language have been omitted from the model.

\(^1\) Recall that all our subjects meet OEO poverty criteria. Therefore, the only SES variation is within the lower class.

\(^2\) op. cit., pp. 174-75.

\(^3\) loc. cit., p. 175.
Stage three of Table 5.7 showed minimal causal effect on adjustment by language ($p_{GF} = -.04$). Rather, type of pre-school socialization and race seemed to be dominant factors. $p_{GB} = .29$ inferred that being white, in this case, was substantially related to being well adjusted. Similarly, Table 5.7 lent support to utilization of the Enrichment program as an adjustive aid, since this program was shown to be significantly related to adjustment ($p_{GA} = .34$). Based on a residual value of .816, a sizable portion of variance in adjustment was explained, although a respectable amount of variance remained unaccounted for.

Exploratory Question Two

How do the five social context variables, plus language as an intervening variable (measured by the Stanford-Binet), interact with observed adjustment?

Table 5.8 introduced observed adjustment as the main dependent variable. Language fluency appeared to have more of an impact on classroom adjustment in this instance (from -.04 to -.08). Nevertheless, a path coefficient of -.08, even though it represented an improvement in causal determination, was still relatively insignificant. Family intactness, SES, race, and number of siblings appeared to exercise causal influence on observed adjustment. Causal linkage between stable family situations and classroom adjustment was suggested by $p_{GC} = -.30$. High SES levels apparently contributed to adjustment as did being non-white and originating from a large family. It may be concluded that, based on the residual path of .921, most of the variation in adjustment remained to be accounted for.
Table 5.8—Causal Model with Path Coefficients for Five Social Context Variables, Plus Language (S-B) and Adjustment (observed)
Exploratory Question Three

How do the five social context variables, plus language as an intervening variable (measured by the Stanford-Binet), interact with school absence rate?

Note in Table 5.9 that school absences comprised the index of adjustment. In this model, Stanford-Binet test results seemed to exert a substantial influence on children's absenteeism. $P_{\text{GF}} = -0.31$ indicated that as S-B scores increased absences decreased. Two other variables associated with school absences in this model were number of siblings and socio-economic status. Small family backgrounds were linked to a limited number of school absences, as was membership in higher social class levels (within the lower class). Again, a sizable residual, 0.907, inhibited any optimism about model 5.9 as a complete explanation of student adjustment.

Exploratory Question Four

How do the five social context variables, plus language as an intervening variable (measured by the Caldwell), interact with teacher-rated adjustment?

Table 5.10 focused on the causal relationship between standard language fluency and teacher-rated adjustment. Herein, the only sizable factor influencing standard language fluency (Caldwell test scores) was family stability. $P_{\text{FC}} = 0.14$ suggested that stable family backgrounds were related to successful completion of the Caldwell Associative Vocabulary Test. In this causal scheme only one significant variable was identified. Consequently, a residual path of 0.986 should come as no surprise.

Teacher-rated adjustment seemed to be notably affected by Caldwell test results ($P_{\text{GF}} = -0.26$), as well as racial identity and pre-
Table 5.9—Causal Model with Path Coefficients for Five Social Context Variables, Plus Language (S-B) and Adjustment (school absences)
Table 5.10—Causal Model with Path Coefficients for Five Social Context Variables, Plus Language (Caldwell) and Adjustment (Teacher-rated)
school socialization. Data in Table 5.10 indicated an inverse relationship between language fluency and teacher-rated adjustment. Regarding race and adjustment, $p_{GB} = .25$ inferred that being white was linked to being well adjusted. In terms of pre-school programs, support was again marshalled for utilization of the Ernichment program, i.e., participation in this program was associated with adjustment in the classroom. In Table 5.10 the residual factor affecting adjustment was .851. Thus, language fluency, pre-school socialization, and racial identity have apparently reduced the unexplained variation in adjustment to a considerable extent.

Exploratory Question Five

How do the five social context variables, plus language as an intervening variable (measured by the Caldwell), interact with observed adjustment?

In Table 5.11 observed adjustment was introduced as the main dependent variable. Initial inspection of the final path model yielded few coefficients of any magnitude. In fact, pre-school socialization appeared to be the sole causal factor worth mentioning. And, in this case, the causal manipulations favor use of the Bereiter-Engelmann language program ($p_{GA} = .18$). Only one significant cause of adjustment was isolated in Table 5.11, hence the residual path of .977 was not unexpected.

Exploratory Question Six

Does the variable of language function in the influence of pre-school socialization on student deviance from teacher-set norms?

The final exploratory question was motivated by findings for the impact of pre-school socialization on student adjustment. From the
Table 5.11—Causal Model with Path Coefficients for Five Social Context Variables, Plus Language (Caldwell) and Adjustment (observed)
findings for pre-school socialization, recall that both pre-school programs were shown to be the predominant influences on students' classroom adjustment. Compare this finding to that of the Erickson et al. study from which the Head Start sample was obtained:

There has been speculation that highly structured programs such as the Bereiter-Engelmann will impair adjustment of children. On the basis of findings thus far we conclude that this is not so. Three independent assessments of adjustment—by parents, teachers, and trained observers—revealed no significant differences in the adjustment of children. Where small differences did occur they were in favor of Bereiter-Engelmann children being better rather than less adjusted than other children.

One might speculate that, since the pre-school programs were designed to improve children's standard language fluency, their adjustment was a function of superior language ability and not participation in a particular pre-school program. Table 5.12 offers evidence to the contrary, however, since neither pre-school group completely dominated the other in language ability. Therefore, it appeared that the variable of language did not operate on pre-school socialization as a cause of classroom adjustment in this study.

Table 5.12—Achievement Test Score Means for Head Start Sample on the Basis of Pre-school and Kindergarten Experiences

<table>
<thead>
<tr>
<th></th>
<th>Bereiter-Engelmann Kindergarten</th>
<th>Regular Kindergarten</th>
<th>Total All Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B-E Enrichment</td>
<td>B-E Enrichment</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>N=21</td>
<td>N=20</td>
<td>N=24</td>
</tr>
<tr>
<td>N</td>
<td>N=24</td>
<td>N=15</td>
<td>N=80</td>
</tr>
<tr>
<td>Stanford-Binet</td>
<td>106.71</td>
<td>108.35</td>
<td>100.50</td>
</tr>
<tr>
<td>Caldwell</td>
<td>77.38</td>
<td>76.20</td>
<td>72.62</td>
</tr>
</tbody>
</table>

^op. cit., p. 84.
Chapter Summary

To summarize briefly, the efficacy of language as a forecaster of deviance from teacher norms was not conclusively supported. However, one factor was isolated as predictive of adjustment, that being pre-school socialization. In the path analysis, family stability was shown to have more impact on language fluency than on student deviancy. Findings for racial identity and number of siblings proved to be contradictory, while, in the two cases where socio-economic status was a factor, a direct relationship between SES and adjustment was evidenced. With regard to residual paths, Tables 5.7 and 5.10 evidenced the least amount of unexplained variance. This finding indicated that the model variables best explained variation in teacher-rated adjustment, since only in these tables was teacher-rated adjustment the main dependent variable.
CHAPTER VI

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

The general hypothesis regarding language as a forecaster of adjustment was not substantiated in this study. As assessed by Guttman's coefficient of relative predictability, errors in the prediction of two measures of adjustment (observed behavior and teacher ratings) were not substantially reduced by the use of two standard measures of language fluency (Caldwell and Stanford-Binet). Furthermore, employing Pearsonian r's, the percentages of variation in adjustment explained by language ranged from only .2% to 11.6%. In other words, very little of the variance in student deviance was accounted for by the measures of language fluency.

The conclusion to reject language as a useful predictor of adjustment was further supported by path analysis. In the path analysis the goal was to ascertain whether the variables associated with adjustment in the literature had a causal effect through language. Based on the path analysis, it is doubtful that language fluency is an intervening variable between race, SES, family size, family stability, preschool socialization and student adjustment. In only one of the five path models did language show any possible influence whatsoever on adjustment.

The factor having the most association with classroom adjustment was type of pre-school program experienced by the students. Three of
the models demonstrated sizable pre-school path coefficients, two of which were greater than .32. Based on this finding, the utility of pre-school socialization as a forecaster of classroom adjustment should not be overlooked.

A second variable with path associations suggesting possible causal relationships, with language, was family intactness. While this family factor appeared to have a causative power over standard language fluency, its effect on student deviance was less apparent. Both language measures were found to bear the influence of family stability. Only in a single model, however, did the intactness of the family affect adjustment.

Path analysis findings for SES indicated that this factor may influence both observed adjustment and school absenteeism.

Findings reported for racial identity and number of siblings were somewhat contradictory. In two tests, being white was linked to being well adjusted. However, in a third test the opposite finding occurred. In other words, this study provided no conclusive evidence that race affects school adjustment. A similar situation was found with regard to family size. One test suggested a direct relationship between number of siblings and observed adjustment; a second test evidenced a conflicting report.

The final exploratory question did not focus primarily on adjustment. Rather, of utmost concern was the influence of language fluency on pre-school socialization as a cause of adjustment. Based on the students' mean ($\bar{x}$) scores for the Stanford-Binet and Caldwell tests, no apparent relationship between standard language fluency and
pre-school program was evident. Hence, it was concluded that the influence of the pre-school programs on student adjustment was not due to language differences in the programs.

Conclusions

The major conclusion of this thesis was that standard language fluency was not shown to be a reliable forecaster of student deviancy from teacher-set norms. Consequently, when attempting to predict student adjustment, variables other than language should be examined.

Negative findings obtained here may stem, in part, from a mis-mapping of the function of language in the role-taking process. That is, the theoretical statements forming the basis for this study assumed a linear relationship between one's competency in the language of the social system and his ability to take the other's role. It may be that the extent of language fluency required to accurately take the other's role has a threshold level. Once the child has mastered the minimum language requisites needed to take the role of the teacher, any additional language skill may be superfluous (for accurate role-taking and/or adjustment).

Also, the students' motivation to adjust in the classroom was not examined. One may speculate that the child who has grasped the fundamental language skills necessary and is highly motivated will adjust on a par with the child having superior language ability who is not so motivated. But, again, since no relevant data were obtained, this is merely conjecture and suggestive of further research. This is not a finding.

Perhaps, the most significant theoretical implications result when
the findings of this study are compared to the findings of the Stryker study. "Role-Taking and Adjustment," which formed the theoretical basis for this investigation. In both Stryker's work and this one it was hypothesized that high role-taking accuracy is associated with high adjustment. Stryker chose as his measure of role-taking the correct prediction of other's attitudinal responses. His research further differed from this one in that it was conducted in a familial setting with adults whose SES levels varied. Although the two designs differed, the findings were similar. That is, neither the findings of this study nor of Stryker's support the view that there is a positive relationship between role-taking accuracy and adjustment. Of course, only two studies are not sufficient to make more than tentative conclusions concerning the relationship or lack of relationship between role-taking and adjustment. Hence, the most obvious conclusion is that further research is required to isolate the various mechanisms involved in the role-taking process. But the mere fact that the two research designs varied considerably while employing identical theoretical propositions and obtaining similar results provides support for rejecting role-taking as linearly related to adjustment.

Turning to conclusions about the social context variables and student deviance, findings indicated that in only two of the path models was SES a factor. This finding demonstrates, at least in this research, that SES is not an overriding, all-pervasive force, and, further, that adjustment difficulties commonly associated with lower class membership can and have been overcome.

It is only fair to admit that the educational environment examined
in this study is atypical. The full year Head Start program from which this sample was drawn made use of small pupil-teacher ratios, high rates of positive reinforcement (for both students and teachers), innovative curricula, parental participation and in-service teacher training to compensate for lower class learning disabilities with measurable success.

Thus, the fact that SES did not influence student adjustment may be related to the structuring of the educational environment. In school situations where these conditions are not prevalent SES may evidence some association with deviance. Therefore, while the nature of the learning environment may be viewed as a limitation to the universal applicability of these findings, it may also suggest avenues for educational innovation, especially among the disadvantaged.

The data on racial identity, family intactness and number of siblings in relation to deviance from teacher-set norms were contradictory, but not inconsequential. This divergence of these findings from the traditional adjustment literature demonstrates, once more, that non-white children from unstable and/or large families can adjust to school standards, at least in certain educational situations. Thus, it may be concluded that disadvantaged children, within selected school systems, can perform on a par with their non-disadvantaged counterparts.

One final conclusion is that the impact of pre-school program on student adjustment did not appear to be a function of language fluency. Consequently, one may conclude that type of pre-school program experiences affects adjustment independent of language.
Recommendations

The major recommendation obtained from this study is that standard language fluency should not be employed as a forecaster of student deviance without other considerations. This is not to suggest that language be rejected as having no impact on adjustment, but rather that other factors may be explored.

This research has helped dispel the myth that being poor and black is inherently associated with failure in school. It has been shown that non-white children from lower SES backgrounds can adjust in the academic situation. Thus, a second recommendation is that educational personnel accept this fact and, where necessary, restructure their programs consistent with the needs and capabilities of their students in terms of classroom adjustment.

The impact of the Bereiter-Engelmann language curriculum on adjustment has been documented in this research. Therefore, it is recommended that this program "be continued and expanded to include a larger proportion of disadvantaged children." A further recommendation regarding both the B-E and Enrichment programs is that the structure and content of these programs be more closely examined to ascertain the specific components contributing to student adjustment. For it may be that what operated in these programs to facilitate adjustment for a disadvantaged child will operate for any school child, regardless of his social class background.

The reader, however, should be cautioned not to view these

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1Erickson et al., op. cit., p. 84.
compensatory curricula as panaceas for deviance. Findings indicated that some of the children who participated in these pre-school programs did not adjust well in kindergarten. Thus, it is conceivable that other kinds of experimental treatment programs are needed to improve adjustment among disadvantaged children. What is more, the lessons learned from the effects of these "prescriptions" among the disadvantaged may be applicable to other student populations. It is somewhat foolish to presume that only disadvantaged children have adjustment problems that can be eased through experimental program input. Consequently, it is recommended that experimental programs be designed and executed in a manner making them suitable for use in a variety of educational settings, not limited to a criteria of poverty.

In this thesis, it was shown that the input of treatment programs can influence adjustment in a positive direction. Thus, an added recommendation is that experimental programs, though not necessarily the two utilized here, be initiated wherever possible to foster adjustment among the disadvantaged. Of course, a related recommendation is that no such experimental program be sustained without provision for rigorous evaluation.

It also is recommended that the factors previously shown to influence adjustment be reexamined. This review is suggested based on findings relating the social context variables to adjustment. The fact that these results were divergent from what would be expected based on the traditional adjustment literature should have many implications, especially for educational policy. Thus, those contemplating educational studies are encouraged not to be bound by the traditionally
"given" relationships incorporating the traditionally "given" variables—racial identity, socio-economic status, family intactness, etc. For it may be that reliance solely on the "givens" will initially bias the research and in the process omit other variables more relevant to understanding adjustment.

The final recommendation offered herein was prompted by Corwin's statement that school learning (including students' classroom adjustment) varies with educational organization. According to Corwin:

"Little is yet known about how organizations influence the learning climate, but that they do influence it is almost certain."

Applied to the findings of this thesis, it may be that the differential impact of pre-school socialization on adjustment was, in part, a function of differential classroom organization in the two preschool programs. Findings indicated that Enrichment experience had a definite impact on adjustment to teacher norms in two of the three tests where pre-school program was a factor, while participation in the B-E was substantially linked to adjustment in the third test. Findings indicated that language did not function in the impact of pre-school program on adjustment. As stated earlier, the Bereiter-Engelmann curriculum differed from the Enrichment program in that the Bereiter-Engelmann emphasized small pupil-teacher ratios and continuous positive reinforcement (for both students and teachers)—organizational contingencies not universally employed as a matter of policy

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in other educational settings. Based on these considerations, it is recommended that increased research attention focus on variations in educational organization as factors affecting student learning (including student adjustment).
The Community Action Agency and the Grand Rapids Board of Education have applied for a grant from the Office of Economic Opportunity for a full-year Head Start program. This program is for children who will enroll in kindergarten in September, 1969.

The following chart indicated the OEO index of poverty. This chart shows by household size and levels of gross income those families which are considered to fall below the poverty line. Ninety percent (90%) of the children in each class must come from families whose incomes are below the poverty line.

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Non-Farm Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1,600</td>
</tr>
<tr>
<td>2</td>
<td>2,000</td>
</tr>
<tr>
<td>3</td>
<td>2,500</td>
</tr>
<tr>
<td>4</td>
<td>3,200</td>
</tr>
<tr>
<td>5</td>
<td>3,800</td>
</tr>
<tr>
<td>6</td>
<td>4,200</td>
</tr>
<tr>
<td>7</td>
<td>4,700</td>
</tr>
<tr>
<td>8</td>
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<td>9</td>
<td>5,800</td>
</tr>
<tr>
<td>10</td>
<td>6,300</td>
</tr>
<tr>
<td>11</td>
<td>6,800</td>
</tr>
<tr>
<td>12</td>
<td>7,300</td>
</tr>
</tbody>
</table>

Please help us to determine if your child is eligible for the Head Start Program by filling in this form and returning it to this recruiting agent or agency.

Do you receive assistance? __________
If not, please complete this form:

Gross Weekly Family Income is:

<table>
<thead>
<tr>
<th>Less than $50</th>
<th>60-70</th>
<th>70-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-60</td>
<td>90-100</td>
<td>100-110</td>
</tr>
<tr>
<td>80-90</td>
<td>120-130</td>
<td>130-140</td>
</tr>
<tr>
<td>110-120</td>
<td>150-160</td>
<td>160-170</td>
</tr>
</tbody>
</table>
Appendix 7-A (continued)

Above 170 - Indicate $_________

How many weeks in year is this earned? __________

Number in the family (Circle one)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Name of child _____________________________ Birthdate __________

Name of parent or guardian _____________________ Tel. __________

Address ________________________________________________

______________________________
Signature of Parent

Head Start Center: ____________

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Appendix 7-B

Description of the Bereiter-Engelmann Language Curriculum

The Bereiter-Engelmann language curriculum is based on continuous reinforcement in the operant tradition. Constant verbalization in unison by the children is stressed. This program is considered to be highly structured in that the stimulus presented by the teacher can evoke a limited number of acceptable responses from the children. For example, the teacher may display a picture of a coat and say to the children, "IS THIS A COAT?" Their expected response is, "YES, THIS IS A COAT." The teacher may then point to different parts of the coat for identification by the group. They respond to the appropriate portion of the coat as follows: "THAT IS A SLEEVE, THOSE ARE BUTTON HOLES," etc. When the students have correctly identified an object, the teacher immediately presents some form of praise. "GOOD TALKING, BOYS AND GIRLS, or MRS. P'S BOYS AND GIRLS ARE GOOD TALKERS TODAY," are examples of such positive reinforcement.
Appendix 7-C

A Description of the Enrichment Program

The enrichment curriculum employed in the Grand Rapids Public Schools Head Start Program may be described as a traditional format with a cognitive orientation.

In keeping with its traditional heritage, teaching centers are maintained for the following activities: creative activities, manipulative activities, block play, dramatic play, water play, science activities, book corner and outdoor play.

Children have freedom to select from a variety of activities at all times, just as in the traditional program, but choices are more limited than those often presented in traditional programs. These limitations are felt to be important since many culturally deprived children may have had few experiences in making decisions, particularly in the area of selection of materials for play.

The basic mode of group interaction consists of shifting small groups within the larger group. These groups usually have available an adult who serves as a resource person or anchor person for the group. Such groups offer a chance for more meaningful interactions and relationships between children, as well as between teacher and child. Language development and concept formation seem most likely to occur in small groups where teacher can listen, and can tell children the names of things and can answer questions and promote further learnings. These groups are changing and formed by the children and are in no way related to ability grouping. This type of voluntary grouping, along with a choice of activity, are parts of the traditional program which are maintained in this experimental curriculum.

1Parks, Carolyn Warner, "A Nursery School for Deprived Children" (Philosophy and Content of Unstructured Program), in Erickson et al., Experiment in Head Start (Final Report), op. cit., p. 158.
Appendix 7-D

Developmental Profile

**REALITY ORIENTATION**

<table>
<thead>
<tr>
<th>INDEPENDENT</th>
<th>GOOD</th>
<th>ADEQUATE</th>
<th>POOR</th>
<th>OUT OF</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF-DISCIPLINED</td>
<td>SELF-CONCEPT WITH POTENTIAL</td>
<td>SELF-CONCEPT WITH POTENTIAL</td>
<td>SELF-CONCEPT CONTACT</td>
<td></td>
</tr>
</tbody>
</table>

**SOCIAL BEHAVIOR**

<table>
<thead>
<tr>
<th>OUTGOING</th>
<th>ACCEPTING</th>
<th>TRACTABLE</th>
<th>REJECTING</th>
<th>AGGRESSIVE</th>
<th>OR WITHDRAWN</th>
</tr>
</thead>
</table>

**LANGUAGE AND SPEECH PATTERNS**

<table>
<thead>
<tr>
<th>SPONTANEOUS COMMUNICATION</th>
<th>COMMUNICATIVE</th>
<th>EXPRESSIVE</th>
<th>IMMATURE</th>
<th>NO</th>
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**WORK HABITS**

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<th>WORK OF GOOD QUALITY</th>
<th>EFFECTIVE WORK WITH MINIMAL GUIDANCE</th>
<th>EFFECTIVE WORK WITH GUIDANCE</th>
<th>WORK REQUIRES DEPENDENT SUPERVISION</th>
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**TEMPERAMENT**

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<th>HAPPY RESPONSIVE</th>
<th>GENERALLY HAPPY</th>
<th>EVEN TEMPERED</th>
<th>TOLERANT OF FRUSTRATION</th>
<th>GENERALLY UNHAPPY LOW</th>
<th>CHANGES IN TOLERANCE</th>
<th>EXTREME MOOD</th>
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**HEALTH AND PHYSICAL DEVELOPMENT**

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<th>GOOD HEALTH</th>
<th>GOOD HEALTH</th>
<th>ATYPICAL</th>
<th>POOR HEALTH</th>
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<td>SUPERIOR</td>
<td>ABOVE AVERAGE</td>
<td>AVERAGE PHYSICAL DEVELOPMENT</td>
<td>PHYSICAL DIAGNOSED</td>
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<tr>
<td>PHYSICAL DEVELOPMENT</td>
<td>DEVELOPMENT</td>
<td>DEVELOPMENT PROBLEM</td>
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<tr>
<td>SUPPORTING GROWTH</td>
<td>SUPPORTING DEMANDING</td>
<td>NORMAL</td>
<td>MILDLY IMPAIRING</td>
<td>NONSUPPORTIVE UNFAVORABLE TO GROWTH</td>
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Appendix 7-E

Behavioral Deviancy Checklist

1. Talking to teacher
2. Touching teacher
3. Striking teacher
4. Talking to self
5. Touching self
6. Striking self
7. Talking to others
8. Touching others
9. Striking others
10. Touching learning material
11. Handling learning material
12. Striking learning material
13. Throwing learning material
14. Touching non-learning material
15. Handling non-learning material
16. Striking non-learning material
17. Throwing non-learning material
18. Leaving assigned area
19. Entering assigned area
20. Remaining in assigned area
21. Leaving non-assigned area
22. Entering non-assigned area
23. Remaining in non-assigned area
24. Walking
25. Running
26. Other locomotive movement
Appendix 7-F

Characteristics of Students

Name of child ______________________________

Birthdate ________________________________
    Month    Day    Year

Address ________________________________
                                    ________________________________

Name of Mother ________________________________

1. Racial or Ethnic Identity
   (1) Black
   (2) White
   (3) Oriental
   (4) Mexican-American
   (5) Other

2. Living with:
   (1) Mother only
   (2) Father only
   (3) Mother and Father
   (4) Mother and Stepfather
   (5) Father and Stepmother
   (6) Stepmother and Stepmother
   (7) Foster parents
   (8) Other relatives
   (9) Other people - not relatives

3. Number of children living home _________

4. Birth rank in family ______________________

5. Major occupation of head of household ______________________

6. Educational level of Mother ______________________

7. Educational level of Father ______________________

8. Residence: own home _______ renting ________

9. Language in home ________________________________
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Dissertations, Papers, etc.


ERIC microfilm


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