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Title: THE RELATIONSHIP BETWEEN TEACHER BEHAVIOR AND UNDERSTANDING OF CHILDREN'S BEHAVIOR

Abstract approved: Marian C. Carlin

The purpose of this study was to explore the relationship between teacher behavior and understanding of children's behavior in a group of beginning practicum student teacher aides. The subjects were thirteen female college students enrolled in either Child Development or Nursery School Teaching programs. These students had all completed at least one course in Family Relations, one term in General Psychology, and two courses in Child Development. Participation in the study was on a voluntary basis.

The data consisted of total scores on two primary types of observed teacher influences, dominative teacher behavior and socially integrative teacher behavior, and the total score on the Film Test for Understanding Behavior (FUB) in addition to the three subscale scores of this instrument, the knowledge, guidance, and sensitivity subscales.
The statistical analysis consisted of the nonparametric statistical test of Spearman's rank order correlation coefficient. This test was employed to explore the null hypothesis that there would be no relationship between teacher behavior and understanding of children's behavior in beginning practicum nursery school student teacher aides.

None of the correlations between the scores on the two instruments used to measure teacher behavior and behavioral understanding was significant. These findings indicate a need for further study of the relationship between teacher behavior and the understanding of children's behavior. The amount and nature of data gathered in this study would lend itself to further data analysis. For example, these data could be studied in relation to data collected on students at progressively higher levels of practicum participation. In addition the investigation of different relationships and combinations of relationships among the many variables could provide data for future studies.
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by

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THE RELATIONSHIP BETWEEN TEACHER BEHAVIOR AND UNDERSTANDING OF CHILDREN'S BEHAVIOR

INTRODUCTION

Research done on teachers includes such areas as teacher behavior, teacher attitudes, teacher personality, and teacher effectiveness. In 1950, Domas and Tiedman published an annotated bibliography containing 1,006 articles which attempted to get at teacher effectiveness and teacher competencies. Since that time, another major work by Gage (1963) presented theoretical orientations, methodologies of research, major variables and areas of research, and research on teaching various grade levels and subject matters. Many of these articles deal with variables of teacher behavior, teacher effectiveness, and teacher competency in discussions of current as well as historical trends and practices.

Creators of models for education of children have also been concerned with teacher behavior for effective teaching. Bereiter and Engelmann (1966), Head Start (1967), and DARCEE (Gray et al., 1966), among others, have specified techniques for teachers to use to work effectively with young children. Tarney (1965) attempted to summarize what a nursery school teacher teaches as well as to give guidance as to how to achieve these teaching goals effectively. Grappers et al. (1968) established a training program to help
teachers recognize and manage social and emotional problems in the classroom. Webster (1972) developed a teacher structure checklist which relates structure to teacher control and states his hope that this might serve as a possible "communication tool." Smith and Giesy (1972) developed a guide for collecting and organizing information on early childhood programs. One section of their guide deals with how goals are to be accomplished through the teaching approach and staff training.

Because there is currently so much interest and concern with effective teacher behavior and teacher competence, schools, states, and the National Association for the Education of Young Children (NAEYC) have all begun to work to develop guidelines for competencies (Teacher Competencies, 1973; Nash and Tobin, 1972; Child Development Associate, 1973; Williams and Ryan, 1972). Many of these competency statements are directed toward the type of work to be completed in a training program, toward environmental specifications within the school, and toward standards to be met to qualify to teach. All of these may be signs of a competent teacher, but they are only overt signs. The real need is to investigate the covert variables of effective teaching such as personality variables, attitudes, and satisfaction to better understand and establish competencies needed by teachers.

Peters (1972) discussed one approach to this problem. It
involves identifying competencies which are necessary to be an effective teacher and then developing a systematic program leading to acquisition of these competencies. Biddle (1963) has suggested, however, that before any program can be developed, effective teaching must be looked at in terms of what behaviors are effective. Then, based upon these behaviors, a model of teacher competence can be developed and programs to attain those competencies can be begun.

Currently, there is no theoretical framework which ties these variables together, although there are hypotheses about the individual ones. One of these has been suggested by Flanders (1970). He has postulated concerning the effects of direct and indirect teacher influences on the interactions in the classroom. These interactions manifest themselves in the social-emotional climate, which Flanders defines as the development of attitudes by the pupils toward the teacher and the classroom. It is affected by the teacher's behavior which in turn affects the social interactions within the classroom. For instance, teacher acceptance of feelings, especially negative feelings, may have a very positive influence on the classroom interaction. In contrast, constant criticism of negative actions and/or feelings may have very detrimental effects on the classroom environment. Negative reactions tend to be circular in nature; that is, it is difficult for students and teachers to respond positively once
negativism has begun. It is the purpose of Flanders' approach of interaction analysis to assess the classroom climate in order to help teachers develop and control teaching behavior and to investigate relationships between classroom interaction and teaching acts in order that some of the variability in the chain can be explained.

The Purpose of This Study

The primary purpose of this study is to explore the relationship between teacher behavior and the teacher's understanding of children's behavior. The concept of teacher behavior is based on Anderson's (1939, 1945, 1946) socially integrative-dominative teacher behaviors, while the concept of understanding children's behavior is based on the dimensions of knowledge, sensitivity, and guidance as developed by Edling and Schalock (1958). The definitions of these terms follow.

Definition of Terms

In order to carry out the purpose of this study, two instruments will be used. H. H. Anderson's Teacher Behavior Categories will be used to measure the student teacher aide behaviors, while The Film Test for Understanding Behavior (FUB) will be used to measure the student teacher aide's understanding of children's behavior.
The definitions of terms relevant to H. H. Anderson's Teacher Behavior Categories include:

**Teacher behavior:** those aspects of teaching over which the teacher has direct control or current options (Flanders, 1970). There are two basic types:

1) **Dominative behavior:** rigid, deterministic behavior; there is disregard for the desires and judgements of others as well as for differences in individuals. These are specifically defined by Anderson (see Appendix A).

2) **Socially integrative behavior:** designated behavior resulting in a commonness of purpose among differences. These have been specified by Anderson also (see Appendix A).

It must be remembered that no behavior is entirely domi- native nor is it entirely integrative.

The definitions of terms relevant to the FUB include:

**Understanding children's behavior:** student teacher aides response on the instrument using the low-medium scale to score three included components:

1) **Knowledge:** the knowledge of expected behavior and development in three- and four-year old children.

2) **Sensitivity:** sensitivity to the feelings of children.
3) **Guidance**: understanding of guidance principles as they relate to specific behaviors.

**Assumptions**

Two assumptions will be made in this study. They are:

1) Anderson's Teacher Behavior Categories can be used to measure student teacher aide behavior in terms of dominative and socially integrative behavior (Anderson, 1939; 1945; 1946).

2) The FUB can be used to measure the student teacher aides' understanding of children's behavior (Edling and Schalock, 1958).

**Hypotheses**

1) There will be no correlation between socially integrative teacher behavior and understanding of children's behavior.

2) There will be no correlation between dominative teacher behavior and understanding of children's behavior.

3) There will be no correlation between socially integrative teacher behavior and the knowledge, sensitivity, and guidance subscales for understanding of children's behavior.

4) There will be no correlation between dominative teacher
behavior and the knowledge, sensitivity, and guidance subscales for understanding of children's behavior.
REVIEW OF LITERATURE

This review of literature is organized into four parts. These include: definitions of teacher behavior and important related terms; problems associated with measurement instruments; a discussion of studies indirectly and directly related to teacher behavior and understanding of children's behavior; and the theoretical position.

Part I: Definitions of Teacher Behavior and Important Related Terms

A review of the literature on teacher behavior has shown that it is used in combination with many other terms, the two most important of which are teacher effectiveness and teacher competency. Because different authors place the emphasis on these terms differently, much confusion and controversy about the teaching profession in general has developed. The following discussion is to establish the definitions used in this study.

Rosencranz and Biddle (1964) refer to teacher behavior as overt actions. In other words, it is all that can be measured: all the teacher characteristics which are transitory, volitional, understandable, and affected by circumstances. The environment and the teacher personality interact to produce teacher behavior which then becomes an outcome, reaction, action, and/or effect on the pupil(s).
Flanders (1970) states additionally that "teacher behavior has been defined as acts by the teacher which occur in the context of classroom interaction" (Flanders, 1970, p. 4). This behavior consists of an event which is the shortest possible act a trained observer can identify and record. This could be any one of Flanders' ten categories of interaction (Flanders, 1964). Any sequence of the same events repeated several times or a short chain of events which frequently occur is labeled as patterns. These are exemplified by Flanders' (1964) matrix system of interaction. Teacher behavior also consists of skills ranging from simple to complex, with increasingly complex skills being the ability to link teaching to students' overt behavior at each stage (Flanders, 1970).

Ryan (1964) examined teacher behavior in terms of teacher characteristics. This dimension of teacher behavior is primarily concerned with the "personal" and "social" behavior of teachers as those behaviors relate to the classroom situation. Specifically, he looked at teacher behavior as having three dimensions: warmth toward pupils, organization within the classroom, and stimulation of students. He felt that teacher behaviors result from personal characteristics such as early experiences, sex, training, and such teacher properties as a favorable opinion of students, a favorable opinion of classroom procedures, a favorable opinion of personnel, traditional versus child-centered approach, verbal understanding,
emotional stability, and validity of response. Ryan found identifiable patterns of teacher behavior; general and specific characteristics seem to distinguish uniformly "highly" and "lowly" assessed teachers as well as the relationships between teacher characteristics and pupil characteristics. Although Ryan's study is descriptive in nature, it does establish the importance of variables such as early experiences, teacher training experiences, sex, and attitude (opinion) toward the current teaching situation as factors of teaching behavior.

Turner (1964) has given support to Ryan's position, although he has defined teaching behavior as a series of problem-solving or coping behaviors rather than in terms of teacher characteristics. From measurements which have been taken from instruments designed to get at coping behaviors, it has been found that the ability to cope is related to formative experiences, other teacher properties such as intelligence, attitudes, values, and to such contextual variables as subject matter and the age of the pupils.

Since behavior is the overt action and the independent variable, the covert and dependent variable then becomes teacher effectiveness (Biddle, 1964). Effectiveness refers to the outcome of the behavior which is being studied in a particular situation. Because there is confusion about what an effective teacher is, what an effective teacher is to do or to produce, when a particular behavior is effective and when it is not, Biddle believes that this definition is one reason why
there is so little consensus when discussing teacher effectiveness. The other part of this problem is the complexity of effects. Often teacher effects are not distinguishable from the effects of other environmental agents both within and outside the classroom. Biddle goes on to state that if teacher effectiveness is to serve as a determinate of teacher competence, then there must be agreement upon language and variables for which the word stands. He feels that the term, teacher effectiveness, refers to "the effects of a teacher in a given classroom situation" (Biddle, 1964, p. 4). For these reasons he has developed a seven variable model of teacher effectiveness.

In a discussion of several paradigms of teacher effectiveness, Gage (1963) states that effectiveness is most often defined as the teacher's effect on the realization of some value, usually in the form of an educational objective. These are established in terms of desired pupil behavior, abilities, habits, or characteristics. In other words, teacher effectiveness is determined by pupil achievement. For example, Karnes et al. (1970) studied the success of implementation of a highly specified preschool instructional program by paraprofessional teachers. Effectiveness of the staff was judged in terms of overall school readiness of the children.

The final step of establishing effective teacher behavior is the determination of teacher competencies. Competence refers to the
average success of all the teacher behavior in achieving its intended
effect (Medley and Mitzel, 1963). Competence in its broadest mean-
ing is the "individual's ability to produce agreed-upon results"
(Biddle, 1964, p. 2); it is one or more abilities of a teacher to do
this. Competence can be described from observation in terms of
what educational effects are to be produced. Herein lie the problems
in determining teacher competencies, some of which Rosencranz and
Biddle (1964) have defined: 1) teacher competence may be difficult
to determine because of the level of abstraction since only the overt
can be measured at the present time; 2) there are currently many
studies, and because of this, it is difficult to distinguish between
good studies and poor studies; 3) since teacher behavior is so com-
plex, teacher competencies cannot be adequately dealt with by the
behavioral sciences in their present stage of development; and,
finally, 4) "...effective research on the competence problem cannot
be made until a general theory of the factors of instruction has been
accepted, and until programmed and integrated long range research
is organized around that theory" (Biddle and Rosencranz, 1964,
p. 234).

Several investigators have attempted to define and specify
teacher competencies. Hewett (1966), and Bullock et al. (1971)
have dealt with competencies needed by teachers of emotionally
handicapped children. Owens (1971) studied the evaluation of teacher
competencies by a group of teachers, college supervisors, and administrators within and among the groups. Rosencranz and Biddle (1964) attempted to study teacher competencies in terms of the teachers' role and role theory. They determined that while there appeared to be three broad role stereotypes, there were significant differences among all respondents' positions and that there existed differences among types of communities, education students and students in other fields as well as teachers in other fields. Among teachers themselves differences existed depending on current position, such as student, first year teacher, subject matter, and sex.

Summary

The preceding discussion suggests that there is a heirarchial framework within which to examine teacher behavior and important related terms. When this complex issue is viewed as such, teacher behavior becomes the basis upon which teacher effectiveness and teacher competencies are generally established. Within this framework, teacher behavior becomes the independent and overt variable and teacher effectiveness is the covert and dependent variable. The effectiveness of a teacher in a given situation can be determined by behaviors which, in turn, are influenced by formative experiences as a child and as a student teacher aide, personality, social situation,
current classroom situation, and perceptions of self and the situation.

Competencies refer to "the ability of a teacher to behave in specified ways within a social situation in order to produce empirically demonstrated efforts approved by those in the environment in which he functions" (Rosencranz and Biddle, 1964, p. 24). These "approved effects" refer to effective teaching behaviors within a given situation which have been investigated. It is the purpose of this study to investigate one aspect of teaching behavior: the relationship between teaching behavior and understanding of children's behavior.

Part II. Problems Associated With Measurement of Teacher Behavior

Biddle (1964) has reviewed forms of measurement used to determine effective teacher behavior as well as discussing their application to behavioral variables.

Observation Techniques

Before discussing Biddle's categories of observation techniques, it is necessary to define observation and to determine its role in relation to research on teacher behavior. The term, observation technique, refers "only to procedures which use systematic observation of classroom behavior to obtain reliable and valid measurements
of differences in the typical behaviors which occur in different classrooms, or in different situations in the same classroom" (Medley and Mitzel, 1963, p. 250). The extent to which the average differences between two measures independently taken in the same classroom are smaller than the average differences taken in two different classrooms is the measure of reliability. This means there are two reasons for unreliability: 1) the differences in the same classroom are too large; or, 2) the differences between different classrooms are too small. Validity is the extent that differences in scores obtained reflect actual differences in behavior. These are determined by possible representative measurable samples of behavior which are observed and recorded accurately and scored accurately to reflect differences in behavior.

The role of observation in research on teacher effectiveness is to gain insight into the nature of effective teaching and to determine the effectiveness of programs and procedures in teacher education and preparation (Medley and Mitzel, 1963).

Biddle (1964) established that there are four categories of observation. One method is participant observation in which the observer takes part in a situation as a "teacher" or as a "student" in order to develop a feel for the interaction which takes place in that situation. Since the observations are usually written down at the end of the participation, the accuracy of this form as well as the
personal biases involved make the reliability and validity of this method most questionable.

A second method is categorical check lists which summarize the behaviors of pupils and/or teachers. These are rated for an interval of time or at the beginning of each type of behavioral emission. Since the categories have to be limited, the richness of the interactions taking place is much simplified. Anderson (1939), Flanders (1970), and Medley and Mitzel (1958) have all devised categorical check lists of teacher behavior. Pankratz (1967) used a modification of Flanders' instrument to study interaction in the classroom because he found the original instrument too limiting.

A third type of observation technique used is the specimen record. In this method, the observer focuses upon a specific participant and records all that the participant does or says as well as information about the environment which may be necessary to explain the participant's actions. Wright et al. (1951) used this method to study the behavior of children in different settings, one teacher-supervised and the other an adult free environment. One problem apparent in this study is that the recordings are for only a limited number of children. Dyck (1963), however, used a similar method on twenty-one children to determine what happens between the teacher and the children in the classroom setting.

Finally, there are electronic recording devices which may be
used in combination with any of the other observational techniques described above. Electronic recording devices may be video tapes and/or tape recordings. Rafael and Marinoff (1973) have described one use of this method to train teachers and to examine the progress of multihandicapped children. In several other studies, this method has been used to determine the reliability of observers (Pankratz, 1967). One disadvantage of this system is that it is expensive; this is especially true of the video taping procedure.

In general, observational studies are expensive in terms of time, money, and demand in training professional observers. Another objection, hence a problem, with observations is that they infringe on the privacy of teachers and school officials and that these people usually resent and resist being observed. Often the presence of an observer in a classroom is disturbing and results in the recording of atypical behavior. Because of the demands of observation, the number of classrooms which may be viewed is also limited. These, then, are the main criticisms of observational studies. However, these limitations may be overcome to a certain extent (Medley and Mitzel, 1963).

**Objective Techniques**

Objective techniques are used to assess the covert variables in teachers, pupils, and others associated with education. Different
types of instruments include achievement tests, ability inventories, questionnaires and interview schedules, and projective tests.

Flanders (1970) and others have used interaction analysis in combination with micro-teaching and micro-planning as ability inventories to determine teacher preparation and changes in teacher behaviors after training in interaction analysis.

The main problems with the objective instruments are that they do not always measure what they are designed to measure, that it is not always possible to present the respondent with stimuli to bring forth what is to be measured with the test items and questions, and that respondents may misunderstand items or may give socially approved answers (Biddle, 1964).

Rating Forms

Another technique commonly used in research on teacher effectiveness is the rating form. Typically, it is used to rate teachers' ability, the teachers' performance, or the pupils' response to the teacher. Robbins (1967) had principals use this method in addition to an objective instrument to investigate their knowledge of teacher behavior. Generally, these rating scales have poor and contradictory results because of personal biases, lack of training in observation on the part of the rater, and lack of first hand information concerning a teacher or classroom interaction. In an attempt to overcome some
of these problems, Ryans (1960) trained observers to use a numerical rating form of teacher characteristics in order to investigate teacher behavior patterns observed in the classroom.

Remmers (1963) defined rating as an estimation. It has some sort of systematic procedure to estimate the degree to which an individual possesses some given trait. The results may be expressed quantitatively or qualitatively. The rating scale is the device used to obtain the information about the trait. Criteria used to judge the rating scale are:

1. objectivity--that the instrument should give reproductive data; these data should not be a function of a particular characteristic of the rater;
2. reliability--if reproduced, the instrument should give the same results within the allowable error limits when carried out under the same set of conditions; accuracy of the observation by the rater is most important because the rating and not the record of the response is the instrument;
3. sensitivity--the scale should be very sensitive about communicating the objective of the instrument;
4. validity--the content, in other words, the categories in the scale, should be relevant to the defined area being investigated and to some relevant behavioral construct; the data should be covariant with some other experimentally
independent index, if possible;

5. utility—the rating scale should be simple and efficient as well as being effective.

Probably the greatest problem with the rating form is biases of the raters. These biases are related to the timing of the study, the amount of experience of the teacher, scales which may unproportionately weigh a particular behavior, and/or biases built into the rating such as a general liking or disliking of the form by the rater (Medley and Mitzel, 1963).

**Self Reports**

Self reports are used to determine teacher effectiveness as they relate to both the objective instruments and rating forms.

In self-reports, however, the respondent is asked to provide information from his own experiences—to replace the direct observation of past events with his own recollections (Biddle, 1964, p. 27).

Problems associated with this method of evaluating teacher effectiveness include biases, reporting educational ideology, while parents and pupils report recent pleasant or unpleasant experiences associated with the classroom. These reports also tend to reflect the cognitive categories which the respondent uses in thinking about the subject matter he has been asked to describe.
Existing Records

Existing records may also be used in studies related to teacher effectiveness and classroom interaction. To date, however, little use has been made of this source of information which could be used to provide evidence of formative experiences and the effects of a given teacher, school, or community in the later performance of teachers of citizens (Biddle, 1964).

A Priori Classification

Finally, a priori classifications of investigation study variables in terms of sex, race, school size, and characteristics of the community among others. Some of these may deal with manipulations of classroom situations, pupil response, and teacher technique controlled by the experimenter (Biddle, 1964). Anderson (1954) and Karnes et al. (1970) did studies which would fall into this classification. These studies which measure by classification cannot use a more complex method of measurement since this method in itself is obvious as to what it is measuring.

Summary

It is difficult to choose measurement techniques from those available to assess teacher behavior because of the problems
associated with each technique. Careful consideration must be given to the disadvantages of each and to the type of study and the purpose(s) of the study before reaching a decision. For this study, an observation instrument and an objective one were used to study the relationship between teacher behavior and understanding of children's behavior.

There were three major reasons for choosing an observational instrument for measuring teacher behavior. First, this instrument was developed by Anderson to determine effective teacher behavior of teachers of young children, specifically, nursery school-aged and kindergarten-aged children. Secondly, the observational instrument is a categorical checklist which summarizes the teaching behavior of the participants. Although all that occurs cannot be measured, the categories are designed to focus on the dynamics of the situation. Finally, since it is difficult to find an instrument which objectively measures teacher behavior and since effective teacher behavior has not been clearly defined and established, observation has been chosen as a means of identify those behaviors which seem to be most effective in terms of understanding of children's behavior.

The choice of the FUB is based on the technique used to administer the test and on the purpose of the test as an objective instrument. Since the test is in the form of a movie, it does not require children or an actual situation for the participants; all the
incidents are the same and given situations for understanding children's behavior can be replicated. This leads to the purpose of the test; it is a means to determine knowledge of expected behavior and development, sensitivity to feelings of children, and understanding of guidance principles as they relate to specific behaviors.

Part III. Teacher Behavior and Understanding of Children's Behavior

Studies related to teacher behavior and understanding of children's behavior may be divided into two categories. There are many studies indirectly related to this topic, but they are important because they give background information on teacher-child-classroom interaction. Many studies indirectly related have determined teacher effectiveness using the following criteria: achievement of pupils, principal and student ratings, classroom control, role of the teacher, job satisfaction, and teacher preparation. The other grouping of studies are those directly related to this topic.

Indirectly Related Studies

Several studies have been done relating teacher effectiveness and pupil achievement. Cogan (1965) used two categories of pupil productivity, amount of required and of self-initiated work, to study three major configurations of teacher behavior: preclusive behavior,
conjunctive behavior, and inclusive behavior. He determined that the conjunctive variable had several shortcomings, mainly that it was too broad to be informative as well as lacking unity and precision. In addition, he determined that the inclusive variable was valuable and the pupils' productivity scores, especially with regards to self-initiated work, offered exciting possibilities in determining a theory of practices in the classroom.

In another study, Amidon and Flanders (1967) used achievement of junior high school students in mathematics as criterion of an internal measure of teacher effectiveness. They found that there was a relation between direct-indirect teacher behavior and clear-unclear goals for these dependent-prone students used in the study. Soar (1967) found when he studied the relationship of the verbal behavior of elementary school teachers and the reading achievement of their pupils that indirect teacher methods were more effective than direct methods in producing growth in vocabulary. Finally, Flanders (1964) found some relationships between teacher influence, pupil attitudes, and achievement. As teacher influence became more indirect, with the passage of time, students were able to learn more and student attitudes toward the educational process improved.

Several studies have attempted to measure teacher personality, teacher satisfaction, and other teacher characteristics as they
relate to teacher effectiveness. These studies are grouped under the topic, teacher role.

In an attempt to describe effective teacher characteristics, Ryans (1964) studied relationships between ten characteristics of teacher behavior and teacher properties and other variables such as formative experiences as they related to age, sex, and early activities, the size of the school, emotional stability, and pupil behavior in the classroom. He found significant relations to early experiences, age, sex (favorable to women teaching the early elementary ages), size of the school, emotional stability, and productive pupil behavior. In a study using just age, sex, and generation among teachers as variables, Peterson (1964) established propositions relating age and age roles, generational cliques, changes, and problems of recognition, involvement, and identity for teachers in the public school systems. In other words, different patterns of effectiveness characterize the young teacher versus the older teacher, the more experienced teacher, the white teacher versus the Negro teacher, the female teacher versus the male teacher.

Scheuer (1971) used emotionally unstable adolescents to evaluate their teachers' personal attributes and effectiveness. He found that there was no positive correlation between scores of the Teacher Competency Check List and the Teacher-Pupil Relationship Inventory teacher or pupil scale. However, he did find a positive correlation
between the pupil scale on the Teacher-Pupil Relationship Inventory and the pupils' academic gains. Teachers tended to rate themselves higher than did their pupils and the level of regard and congruence scores were highly significant.

In a study of job satisfaction and staff morale, Cox (1971) concluded that a satisfied teacher may be more motivated; therefore, satisfaction may be a consideration when doing work to develop competencies. He found that the management (administration) is becoming more concerned with satisfaction of teachers. One means to determine this may be through the use of principal and pupil ratings of teachers. Robbins (1967) was interested in determining to what extent principals and supervisors were aware and were able to identify teaching effectiveness. By using principals and students to rate the effectiveness of teachers, he found that with some degree of accuracy, principals can characterize teaching styles of members of their faculty.

Verbal behavior has been used as the basis of many studies to determine the influence of the teacher in the classroom. Pankratz (1967) used the Principals' Perception Test as well as a modification of Flanders' system and the Students' Perception Test to measure the teachers' success in the teacher-pupil relationship and personal adjustment in order to determine verbal interaction patterns and the effect of these patterns in the classroom of selected
physics teachers. The most important verbal interactions were found to be those involving praise and reward, requests and commands, cognitive and skill clarification and acceptance, criticism and rejection, and confusion and irrelevant behavior. In a study of the verbal behavior of teachers judged to be "superior", Amidon and Giammatteo (1967) found that these teachers were more accepting of student initiated ideas, that these teachers tended to encourage these ideas, that these teachers made an effort to expand these ideas. In addition, these teachers tended to use more indirect verbal behavior, particularly direction-giving and criticism behavior.

Verbal behavior may also be an indicator of the role the teacher plays in the classroom. Furst and Amidon (1967) studied the interaction patterns in the first six grades as well as the different interaction patterns that exist among various subject areas, namely reading, social studies, and arithmetic. In general, teachers appear to be more indirect in their approach in the early grades and more direct in grades five and six. In the early grades, teachers tend to use more question methods whereas teachers later on use more lecture material. If content is excluded from this consideration, the later grade (fifth and sixth) teachers show more indirect patterns of interaction than do teachers in the first four grades. With regard to content areas, teacher influences are more direct in the areas of arithmetic and reading and more indirect in the area of social studies.
Teachers in the primary grades tend to respond to children with praise or questions; first grade teachers primarily use questions and from third grade on responses become more varied to include not only praise and questions, but also lectures and criticism.

Other studies have attempted to determine the position of role in teacher effectiveness. When Peterson (1964) used the variables of age, teacher's role, and institutional setting to investigate teacher effectiveness, he found that age may be a determinant in the relationship between teachers and students, and therefore the effectiveness of the teachers. It was also found that the role of the teacher tended to change with age; that is, that different types of behavior are required for effectiveness at different ages. However, the findings on the institutional setting remain largely under question.

Recently, there has been emphasis placed on the investigation of teacher preparation. Amidon and Hough (1967) presented a large number of studies in this area which all have as their theoretical basis interaction analysis. Other studies in this area include Karnes (1970), Sobring (1970), Gallup (1970), and Lippett (1971).

One of several studies which has been reported on the inservice and preservice training of teachers was done by Bowers and Sour (1961). They found that teachers whose personalities showed a predisposition toward effective teacher behavior tended to benefit most from training in human relations for more effective classroom
teacher behavior. In another study which establishes the influence of training programs, Flanders (1963) trained teachers to observe classroom interactions by using a set of categories that emphasize different teaching patterns of influence. He found that at the end of the training, there was a consistency between a teachers' own preferred style of teaching and the methods used to train. This influenced the progress made by the teachers; some teachers who were more active in the training process also made more changes in their classroom behavior in a direction consistent with the aims of the training program. Storlie (1967) supported this in his study of a nine week training project concerned with the analysis of teachers' use of authority in the classroom. Two groups were chosen: one was a direct training program in which the instructor planned and directed all activities; the other was an indirect program in which the instructor encouraged the teachers to express their own ideas, to experiment with different patterns of influence, and to discuss their results with the rest of the class. The teachers in the indirect training group were found to have more indirect and more flexible teaching styles in the classroom. The author attributes this to the training with the indirect instructor style. In these two studies, it is not only important to note the importance of feedback, but also the nature of the verbal behavior used by the instructors in the training projects.
In Moskowitz's (1967) study, feedback and the nature of the verbal behavior used by the instructor was also important. When she used inservice teachers as preservice teachers' supervisors, she found a significant difference in the kind of teacher talk used by the cooperating teachers. They tended to use indirect methods of interaction in the classroom as well as when dealing with others. Other results include an analysis of methods used by combinations of trained-untrained cooperating teacher supervisors and trained-untrained preservice teachers. The trained supervisors and trained student teachers tended to demonstrate significantly more indirect teaching patterns than did a combination of untrained supervisors and untrained student teachers. However, untrained student teachers and trained cooperating teachers showed no significant differences in their teaching patterns. There were great differences however between trained student teachers and their use of indirect teaching patterns and their untrained cooperating teacher supervisors.

Zahn (1967), Hough and Amidon (1967), Furst (1965), Hough and Ober (1966), and Lohman et al. (1967) have all dealt with the training of preservice teachers in the skills and techniques of interaction analysis. All these studies are replications supporting the effectiveness of interaction analysis training in preservice training of teachers. Zahn used this to determine the effect of training and attitude changes with regards to openness or closedness. He
showed that the effect of the openness-closedness of the belief-disbelief system of the student teacher as well as the training in interaction analysis was related to attitude changes during the student teaching experience. Hough and Amidon used interaction analysis to train preservice teachers, then measured their performance using their supervisors as raters on conventional rating scales rather than an interaction analysis scale. Students who had had the training were rated as more effective than were their counterparts who had not had this training. Furst's study of the effects of interaction analysis preceding student teaching used verbal behavior as the dependent variable. She found that student teachers who had this training differed significantly from the control group in their use of more total teacher acceptance of student ideas and total teacher acceptance behavior. Hough and Ober have verified these results. In addition, Lohman et al., continued with a sample of the students from the Hough-Ober study into their student teaching experience to further verify the results of the previous studies.

Lippett (1971) studied the effects of human relations training on student teachers in a context other than interaction analysis to determine if an actual experience with human subjects would lead to a better teacher training program. He found that the experimental group differed significantly in its ability to develop more effective teacher characteristics than did the control group. Sobring (1970)
had done a similar study to improve the prospective teachers' self-understanding opportunities. However, he found that the type of training had no effect on the teacher groups. Gallup's (1970) study of the relationship between teacher beliefs, academic preparation, and experiences in teaching further increases the complexity and confusion of this issue. He found that changing schools with different philosophies of education may make a difference in the teaching beliefs and practices even if students complete their program under a different philosophy. Changes are also a result of the experiences in teaching and changes in the developmental level of the students involved.

Directly Related Studies

Several means have been developed to study teacher potential for understanding children's behavior. The studies which relate teacher behavior to understanding of children's behavior are focused upon empathy of the teacher, the teachers' perceptions of classroom behavior, the effects of children's behavior on the behavior of the teacher, the effect of the environment on the behavior of the teacher and of the child, and the attitudes of student teachers toward children.

Dixon and William (1961) measured teacher potential for empathy (accepting attitudes, ability to be objective in viewing problems in a mature way, and responding to individual needs) to
predict teacher performance. They determined that teachers who were more empathetic were rated as better teachers by students and by supervisors. However, an analysis of personality traits was not productive in predicting teacher performance. In addition, it was determined that the stability of self-perception of the teaching role by individuals could help develop good relationships with the children. Cantrell and Hendrickson (1970) established that time is an important variable in the development of empathy for young children. They determined that after three to five years of teaching, teachers had more empathy; however, after completion of a class in child development, there was a loss of empathy. In another similar study, Reed (1953) investigated the relationship between teacher effectiveness and the teachers' attitude of acceptance. He found that an effective teacher has the trust and confidence of students and that students learn best from an effective teacher.

The ability to be empathetic may be related to the teachers' perceptions of classroom behavior as well as the effects of the children's behavior on the teacher. In Hillyard's (1971) study of differences in teacher perceptions of classroom behavior, she found great differences in the experiences of teachers at different levels as was demonstrated by more permissiveness, more rewarding, less punitive actions among kindergarten teachers than among primary teachers. However, student teachers were less permissive
and less aware of their actions on the children socially. Anderson (1939; 1945; 1946) found that children's behavior does affect the teacher's perceptions. Teacher initiated contacts with children tend to be dominative, while teacher response to those initiated by the child tend to be mostly integrative. Anderson also found that teachers who displayed more integrative behavior had students who displayed a lower frequency of looking up from seat work, playing with foreign objects, and both conforming and nonconforming behavior. The students tended to be more spontaneous, show more initiative, and make more social contributions both voluntarily and in response to others. It was found that domination tended to reduce social participation and to increase conflict while socially integrative behavior tended to reduce conflict as well as serve as a means to eliminate the circular pattern of domination and conflict.

Others who have studied the effect of student behavior on teachers include Jenkins (1969) who tried to determine if student behavior influenced teachers' self evaluation pertaining to their effectiveness. He found that teachers in a positive feedback group had a higher mean rating than did those in the negative feedback group; he concluded that student classroom behavior did have a significant influence on the teachers' self evaluation. Klein (1971) concluded also that certain student behaviors do influence teacher behavior. She found that the teacher displayed more positive
behavior when there was positive student influence or natural student influence; and teacher behavior was more negative during periods of negative student behavior. It is important here to note that student behavior influences teacher behavior along a continuum. Lothrop (1971) established this in her study of the relationship between children's classroom behavior and the teacher's personality, attitudes, and behavior. When she attempted to evaluate the relationship between teacher personality characteristics, teachers' evaluations of disturbances and/or misbehavior of children, observe teacher behavior with regard to certain child behavior, and observe children's classroom behavior, she found that a pattern of interaction developed along a continuum of activity. Teachers tend to consider most seriously those behaviors in children which are consistent with her own. Behavior on the continuum is contingent on many variables such as age, experience of the teacher, attitudes, and personality.

The environment in which the teacher carried out her activities may affect the children as well as the teachers. Wright et al. (1951) studied the effect of the setting on one second grader in both a teacher supervised classroom and in an adult free situation. In the school setting, the child was less intense, less energetic, less creative, more restless, displayed smaller less clear cognitive fields, less positive geniality, more social motivation, and fewer
direct interest motivations. This may suggest that conditions in the classroom are not always intrinsically rewarding. In support of the finding of less intense child behavior in a teacher supervised situation, Fawl (1959) found that emotional disturbances in the classroom do not have the intensity nor do they occur as frequently as those in a freer situation. However, these disturbances do last longer and are milder, and there appears to be prolonged resentment and boredom among students.

Dyck (1963) studied the effect of environment in a study which compared the differences in the treatment of children by parents and teachers. He concluded that teachers tend to initiate interactions with a child to move him in a specific direction rather than to respond to his interests as do parents and that teachers tend to dominate children more than do parents. Hughes (1959) also found that teachers' behavior in the classroom tends to be predominantly controlling, although there are differences in the degree of control each teacher displays as well as differences in different situations such as reading class versus activity period.

Attitudes of student teachers in a nursery school setting have been studied by Mueller (1968) and Bouverat (1970). Mueller used the dimensions of cognitive demand, prop setting, active language, and empirical discovery and the child's reaction to the teacher's behavior to establish that teacher's behavior differed significantly on the four
dimensions and that the children's behavior varied on eight points and was related to the teacher's performance. Bouverat was interested in the relationship between personal values and characteristics in terms of self actualization and perceptions of teaching roles held by prospective teachers of children younger than six. She found no significant differences between the high and low groups' perceptions of teaching roles in general. However, there was a significant difference regarding certain types of roles. Those with high mean scores on the Teacher Preference Schedule tended to be clustered in the child-centered role for both groups.

**Summary**

Background information obtained from studies indirectly related to the study of the relationship between teacher behavior and understanding of children's behavior establishes several important criterion variables for understanding of this relationship. These primarily focus on pupil achievement, the teacher's role including such variables as teacher personality, teacher satisfaction, and other teacher characteristics such as age, sex, and intelligence, and teacher preparation as they all relate to teacher effectiveness. It may be concluded that these variables are some determinants of teacher effectiveness and the social-emotional climate within the classroom. To understand more adequately the dynamics underlying
these teacher effects, it is necessary to look at them in terms of teaching behavior.

Studies which have attempted to examine the dynamics of the relationship between teacher behavior and the understanding of children's behavior indicate that there are several influences affecting this relationship. These include self-perception, the amount of experience, perceptions of classroom behavior, the environment, especially a free one as opposed to a structured environment, and the formative experiences as a teacher-in-training. The general conclusion which may be drawn from these studies is that the development of effective teaching behavior required for understanding of children's behavior develops over time and is related to the teacher's perceptions of self and his perceptions of classroom behavior as well as the effects of the children's behavior on the teacher.

Part IV: Theoretical Position

Currently there is no agreed upon theoretical framework for teacher behavior. Flanders, however, has proposed the use of interaction analysis as one method for studying teacher behavior (Flanders, 1970; Amidon and Hough, 1967; and Flanders, 1963). This method of looking at teacher behavior involves pairs of interaction incidents through which Flanders is able to show what immediately preceeds pupil behavior in a situation. This is the
major criterion variable for examining the effects of teacher behavior.

Amidon and Hough (1967) point out that interaction analysis is a technique to record both quantitative and qualitative aspects of teacher behavior in the classroom. Because it is an observational system, it cannot measure all that occurs. Instead, it focuses on the dynamics of the situation; that is, it records the verbal behavior of the teacher and pupils as it relates to the social-emotional climate of the classroom.

Withall (1949) defined the social-emotional climate of the classroom in the following manner:

Climate is considered...to represent the emotional tone which is a concomitant of interpersonal interaction. It is a general emotional factor which appears to be present in interactions occurring between individuals in face-to-face groups. It seems to have some relationship to the degree of acceptance expressed by members of a group regarding each other's needs or goals. Operationally defined, it is considered to influence: 1) the inner private world of each individual; 2) the esprit de corps of a group; 3) the sense of meaningfulness of group and individual goals and activities; 4) the objectivity with which a problem is attacked; and 5) the kind and extent of interpersonal interaction in the group. (Withall, 1949, p. 347).

The general assumption underlying Flanders' (1967) theory is that there are times when direct influence is more appropriate and other times when indirect influence is more appropriate in the control of classroom behavior and learning. Direct influence refers to the teacher stating his opinions or ideas, directing the pupils' actions,
criticizing his behavior, or justifying the teachers' authority or use of authority, while indirect influence refers to the soliciting of opinions or ideas, praising or encouraging the participation of pupils, or clarifying and accepting their feelings.

The relationship between the type of teacher influence displayed and the type of behavior displayed by students establishes the social-emotional climate of the classroom. The climate is constantly changing because of the influence of the teacher and the pupils on each other. Flanders viewed the teacher-pupil relationship as a superior-subordinate relationship. He used the word dependence to refer to the student part of the interaction.

Flanders established four degrees of dependence. High dependence refers to a situation in which students attempt to find additional ways to comply with the authority of the teacher. In the average classroom, medium dependence is most common. Teacher direction is essential to initiate and direct activities; however, students do not voluntarily seek this direction, but they do comply when it occurs. Low dependence is a situation in which students will comply to directions of the teacher when they occur. Activities in these situations are usually teacher initiated, but they are activities which can be carried out without further teacher involvement. The opposite condition from the states of dependence is independence, which refers to a condition in which student activity is perceived as
being self-directed and the students do not expect directions from the teacher. The teacher in this situation may have helped the students create the perception of what they are working on initially. If teacher direction should occur, the students are free to evaluate it in terms of the requirements of the activity in which they are engaged. These definitions follow the basic assumption that "the learning potential of pupils is inversely related to their level of dependence within reasonable and practical limits of classroom organization" (Flanders, 1967, p. 109).

Flanders has pointed out that much has been done to give the term direct influence a "bad name" and this has lead to a general misunderstanding that this type of influence should be avoided in the classroom. He has suggested, however, that there will be no change in the dependence of the students when direct influences are used by the teacher if there are clearly specified goals stated during this period. "In fact, direct influence related to a clear goal may provide opportunities to challenge the ideas and conclusions of the pupils and to enrich the learning process" (Flanders, 1967, p. 116).

In the terms of the present study, dominative behavior of the teacher is similar to Flander's term direct. Anderson (1949) described in detail the characteristics of dominative behavior: use of force, commands, threats, shame, blame, attacks against the personal status of an individual characterized by rigidity or
inflexibility of purpose...failure to admit psychological inevitability of individual differences...make others behave according to one's own standards or purposes. It can be said that this approach is the more traditional approach to education in which the teacher is the active participant in the classroom while the child is placed in the passive role. On the other hand, socially integrative behavior is similar to Flanders' term indirect. Anderson (1946) states that this behavior is consistent with the concepts of growth and learning, that it promotes interplay of differences, that it promotes emergence of originality and the democratic process, that it makes allowances for individualism, that it encourages the child's participation in the classroom. In other words, integrative behavior is flexible, adaptive, objective, and cooperative.

In terms of children's behavior, it is necessary to look at the type of domination or social integration to determine the climate of the classroom. Anderson (1946) refers to climate as the "mental hygiene assumptions." He has specified five of these assumptions. The highest assumption is integration with evidence of working together. This would probably indicate a high degree of understanding of children's behavior. It is characterized by evidence of goal direction for both teachers and children. The children are involved in a situation as is indicated by their interest or desire to be there. The teacher accepts an individual child where he is developmentally:
that is, the child's status is not affected by his actions, even if they are inappropriate. At the other extreme, the lowest level assumption; domination with evidence of conflict would be an indicator of a lack of understanding of children's behavior. In this instance, the teacher imposes her wishes or goals upon a child who has already indicated that he has a goal he is interested in pursuing. In other words, the teacher and the child are working against each other. (It must be remembered that at times this might be necessary if the child's health and safety are in jeopardy.)

There are three remaining assumptions. The remaining integrative assumption has been specified as integration with no evidence of working together. In this instance, all contacts with children are initiated by the teacher. However, there is no teacher force, coercion, or pressure. Many of these teacher contacts are exploratory in nature to arouse a child's interest. The child is free to accept or refuse the teacher's advances. This category also indicates that the teacher understands children fairly well.

The other two assumptions are both dominative in nature. Domination with no evidence of conflict includes the routine mechanics of group management, that is, the administrative shortcuts to a teacher determined goal. Many times, the teacher is acting as an agent of the school system or society in general for the socialization of the child. Her decisions are unsolicited by the child. While it is
necessary to socialize the child, this area might become a crutch for the teacher. For example, she may ignore individual differences of children in preference to "good" behavior. Finally, there is domination with evidence of working together. In this instance, the teacher and the child both indicate that they are pursuing the same goal or are trying to find a common purpose without imposing upon each other. The teacher may attempt to help a child with an activity in which he is already engaged, or the child may indicate that he is willing to accept the teacher's goals or ideas as his own. This category would tend to indicate that the teacher is more understanding of children's behavior than in the other two dominative categories.

Summary

Flanders main intent for developing his framework of interaction analysis was to approach the study of teaching behavior from a scientific perspective to better understand the teacher's role, the control the teacher provides while teaching, and the patterns of influence the teacher uses in classroom management. Specifically, verbal teaching behavior is the focus of this approach because it is felt that this is representative of all nonverbal teaching behaviors, because amount of teacher talk and what teachers say determines student reactions, and because teachers can control their verbal behavior.
This systematic attempt to study teacher influences deals with the three areas of confusion specified by Biddle (1964): 1) a lack of recognition of the problem of effectiveness by educators and administrators resulting in an inability to define, prepare for, or measure teacher influences; 2) disagreement over effects the teacher is to produce in an educational environment; and, 3) the number of terms used which results in no agreed upon language and variables with which to conduct research. Flanders has accomplished this by identifying types of verbal behavior as "patterns of influence": i.e., a series of behaviors occurring again and again so as to be identifiable to an observer (Flanders, 1965). When these patterns are labeled, a common language develops. In addition, Flanders has specified concepts of teacher influence and procedures to quantify it, descriptions of student dependence, descriptions of learning goals, and measures of teacher flexibility and homogeneous classroom activities to quantify teacher influences in the form of an indirect teacher influence-direct teacher influence ratio (I/D). This ratio is an indicator of the climate within a classroom.

Flanders approach has as its antecedents the work of Anderson (1939, 1945, 1946) and his colleagues (Brewer and Anderson, 1945; Brewer, 1946; and Reed, 1946). Their early studies of teacher-pupil behavior in nursery, primary, and elementary schools established a direct relationship between teacher influences and
classroom climate. The bases for these studies were observed "dominative" and "integrative" contacts which Anderson found to be consistently and significantly related to classroom climate.
METHOD

Subjects

The subjects were 13 student teacher aides currently enrolled in a Directed Experience with Preschool Children, Family Life 425, at Oregon State University, Corvallis, Oregon. This course is organized to provide a beginning practicum class focusing on development of insight into the social-emotional behavior of children and child-adult relations. All students in the course had taken at least two other courses in Child Development, one course in Family Relations, and a term in General Psychology. (See Appendix C). Cooperation was on a voluntary basis.

Instruments

Two instruments were used to collect the data for this study. These were: The Film Test for Understanding Behavior (FUB) and H. H. Anderson's Teacher Behavior Categories. Only the FUB was administered to the students. The Teacher Behavior Categories is an observational instrument used to determine teacher classroom behavior.
Film Test for Understanding Behavior (FUB)

The Film Test for Understanding Behavior is composed of ten filmed episodes of behavior displayed by three- and four-year old children in a nursery school setting. This instrument was developed by Edling and Schalock (1958) as a means of measuring responses about understanding children's behavior. Edling and Schalock have included three components in the definition of understanding children's behavior: knowledge of expected behavior and development in three and four year old children; sensitivity to the feelings of children; and understanding of guidance principles as they relate to specific behaviors. The instrument is designed in such a way as to involve the subjects in an interpersonal situation without having to create an actual situation. Each episode of the film is approximately one minute in length. In addition, there are statements about the behavior(s) observed in each episode. The subject is asked to respond to statements about each episode with one of five responses: Agree, Agree with Hesitation, Uncertain, Disagree with Hesitation, Disagree. The responses are scored from +2 for the most correct response to a -2 for the least correct response. Two keys, a low-medium and a high-medium scale, are used to tally the scores. The scale used is dependent on the subjects' background in child development.
Reliability

Reliability coefficients for the FUB have been determined from small samples using the test-retest method. In two studies for which the reliability coefficients were obtained, the Pearson-Product Moment Correlation Method was used. Karuven (1960) established a .78 reliability coefficient on seven college-aged students over a time interval ranging from seven days to five months. Using nine college students, O'Neill (1960) established a reliability coefficient of .73. The time interval between pre- and post-testing was one month.

Content validity

Content validity has been established by Karuven (1960), Beard (1960), O'Neill (1960), Smith (1960), O'Neill (1963), Richards (1964), and Harrison (1970). Karuven, Beard and O'Neill (1963) determined that the FUB does discriminate among students with various levels of course work in child development and related subjects at the college level. Students who have had more course work tend to score higher than those who have had less. In addition, Karuven determined that discrimination could be made on the basis of laboratory participation with those who had been in the laboratory having higher scores than those who had not. O'Neill (1960) determined that students observed to be more effective with an infant also tended to
have higher scores on the FUB; in addition, higher scores on the
FUB were associated with higher grade point averages on college
work. Smith also found that this latter relationship existed as well
as that high ratings in the child development laboratory were
positively correlated to high FUB scores. Richards determined
that training can be determined among people working in the field;
it discriminates between child development specialists and day care
and nursery school teachers. Significant increases in scores have
also been established by Harrison for tenth, eleventh, and twelfth
grade students who participated in a child development facility for
one term. In conclusion, it can be said that the FUB differentiated
various experimental and control groupings used in these studies as
well as indicating changes in scores as a result of participation in
classes and laboratories.

Construct validity

The FUB may be a predictor of certain types of behavior.
Studies done by Harrison and Hutchins (1970) indicate that there may
be a relation between marital and parental viewpoints and an under-
standing of children's behavior. Harrison found that the less dominant
scores on the Interpersonal Check List, as well as an increase in
the equalitarian view of marital role expectation as measured by the
Dunn Marital Role Expectation Inventory may be reflected in the
increase in the FUB scores. Hutchins' study had similar results. However, both Smith and O'Neill (1963) found that the FUB scores are not predictors of personality traits nor anxiety manifested in students.

H. H. Anderson's Teacher Behavior Categories

This instrument is an observation blank designed to record five minute observations of a participant teacher's behavior. The categories are memorized by the observer prior to administration of the instrument. The blank has space for the names of children in the classroom at the top of vertical columns and the categories of teacher behavior appear in the horizontal columns. Categories 1 through 8 record dominative teacher contacts; categories 15 through 23 record integrative teacher behavior. While categories 9 and 10 are difficult to definitely place in either the integrative or dominative realm, they are believed to belong to the dominative for the former (9) and the integrative for the latter (10). Categories 11 through 14 have no descriptions after them because they have been included in other categories.

Reliability

Reliability must be established for the observers involved. Anderson (1945) analyzed 73 pairs of consecutive and simultaneous
recordings of kindergarten teacher behavior. For the dominative
teacher contacts with children (categories 1 through 8), reliability
was established at .80 or above, with six of the coefficients being
.93 or above. For integrative behavior (categories 15 through 23),
the coefficients were of lower frequencies and were low, but they
were consistent within a narrow range. Of ten coefficients estab-
lished for all categories, reliability coefficients of .87 or above were
determined with six of the ten being .93 or above. When all the data
were correlated child by child and category by category, the
coefficients for the two schools involved in the study were .78 and
.77. These were felt to be sufficiently high to make the data
acceptable for the study.

Reliability for observers has also been established by
Anderson (1945a), Brewer and Anderson (1945), and Brewer and
Anderson (1946). When Anderson studied the variability of teachers'
behavior toward kindergarten children, he established that the
correlation between two observers ranged from .85 to .93. This
study did establish an improvement in reliability for integrative
behavior, ranging from .74 to .81. In two studies by Brewer and
Anderson, reliability coefficients were established for rating
children on a behavior scale ranging for teachers from .28 to .80
with a median coefficient at .58, and for the observers from .33 to
.82 with a median of .68. In the latter study, reliability was
established by the percentage of agreement which was measured three different times during the study. It ranged from .86 to .93.

Brewer and Anderson (1945) also used consistency as a reliability measure. They analyzed the behavior of children for odd-even minutes of two hours of observation. They established coefficients ranging from .74 to .91 for each child. Teacher response to the same individual children were not consistent as shown by the low coefficients, but the investigators did find a tendency in individual domination of the same children at the .59 level.

Validity

Anderson (1945) attempted to study the number and nature of teacher contacts with kindergarten children in two different classroom situations: one class had a teacher and an assistant; the other had only one teacher. He found that no integrative/dominative ratio (I/D; total number of observed integrative teacher behaviors divided by total number of observed dominative behaviors) in the school with the teacher and the assistant exceeded .30, regardless of the teacher sampling during the observation period. In the other classroom, the highest I/D ratio corresponded with the lowest one for the teacher-assistant situation. This indicates that the former was a situation in which there was more integrative teacher behavior.
Brewer and Anderson (1945) investigated the relationship between several categories of children's behavior and several categories of teacher contact to analyze the nature and the degree of the children's behavior and the teacher's dominative-integrative contacts. Child behavior categories had the following correlations: working alone and watching were negatively correlated with playing harmoniously; playing harmoniously (integrative child behavior) had a .54 correlation with playing dominantly; playing noisely, dangerously, or destructively and not following teachers' leads (dominative behavior) had a .56 correlation with each other and a consistent zero relation with categories involving nonconfrontation types of behavior. In the two groups tested, both had negative correlations of -.54 and -.66 with regards to following the teachers' leads.

Intercorrelation of the teachers' individual contacts showed a coefficient of .57 between children receiving the highest frequency of teacher dominative contacts and teacher dominative contacts initiated by the child. No relation was found, however, between teacher initiated dominative and teacher initiated integrative behavior. When correlations were computed between teacher contacts and child behavior categories, it was found that: with the category of working or playing together, all coefficients were negative, indicating that there was a tendency for the child who played alone to be left alone; children who were dominative tended to receive dominative behavior
initiated by the teacher, but there was no tendency for the teacher to use integrative behavior with a dominative child.

Brewer (1946) in a study to investigate the relationship between children's behavior and the behavior of teachers as well as other factors determined that the two teachers in his study were significantly different in the following ways: one teacher was less dominative toward the children as a group and individually, and she was more integrative both toward the group and individually than the other teacher. Therefore, in that teacher's classroom, there was a significantly lower frequency of looking up, undetermined child-child contacts, playing with foreign objects, and conforming and non-conforming to teacher dominative behavior. The children in this class had significantly higher frequency of voluntary suggestions, desires and expression of appreciation, social contributions, and speaking out in class. When the data was analyzed with regards to sex, all types of teacher contacts except one were higher for boys. The teachers also tended to be more dominative toward boys.

Reed (1946) used the teachers from Brewer's (1945) study to do a follow up study one year later. She found that the dominative and integrative behavior were still present in the two teachers. Her domination in conflict (DC) and integrative in working together (IN) ratios for the integrative teacher were much higher than for the dominative teacher.
Procedures

**Obtaining cooperation of subjects**

The subjects came from the various sections of Family Life 425. Since participation in this study was optional, an explanation of the study was presented during a Friday class lecture, following the first administration of the FUB, to request their cooperation. This was particularly important because of the observations of the subjects as a portion of the study. Those interested in participating were asked to fill out the background data sheet, to sign the explanation of the study indicating their interest in receiving a summary of the study, and to turn them into the researcher as indication of their interest. The background data sheet was used as a means to choose subjects on the basis of major (Child Development or Nursery School Teaching), sex (female), and year in school (undergraduate).

**Administration of the FUB**

The FUB is routinely administered twice during the term for on-going Family Life Department research. It is done once at the beginning of the term and again at the end of the term during the last class meeting. For this study, only the results from the latter
were used to coincide with the observations in order to establish a relationship between teacher behavior and understanding of children's behavior.

Administration of the Teacher Behavior Categories

The Teacher Behavior Categories were administered by two observers independently recording dominative and integrative teacher behaviors to determine the number of each type for each participant. Each made three-five minute observations of each student who participated in the study. These observations were at different times during the day. A time schedule was set up breaking the day into free play time period and formal time period. Formal times included stories, music, lunch, field trips, or any specifically organized group activity. Free times were any activities in which the child was free to choose to participate, and to come and leave as he pleased. Three observations were made during each of these times. Observations took place during the last three weeks of participation in the nursery school setting.

Prior to these observations, the observers had memorized the categories. Reliability was established between the observers. Five minute observations again were used; they were consecutively and simultaneously recorded until a correlation of .80 was obtained.
Analysis of Data

The nonparametric statistic of rank correlation was applied to the data to test the hypotheses of this study. Each result for the FUB and its subscales and for the dominative and socially integrative behaviors were ranked from the lowest to the highest. Spearman's rank order correlation coefficient

\[
R = 1 - 6 \sum_{i=1}^{n} D_i^2 \frac{1}{n(n^2-1)}
\]

was then applied to test each null hypothesis.
RESULTS

The purpose of this study was to explore the relationship between teacher behavior and the teacher's understanding of children's behavior. The two primary teacher influences, dominative and integrative teacher behaviors, and three aspects of understanding of children's behavior were the variables chosen to explore this relationship. The nonparametric statistical test of Spearman's rank order correlation coefficient has been used to evaluate the results of these correlations at the 0.05 level of significance. A nonparametric test was chosen because of its distribution free quality which allows the researcher to examine and to make inferences without the numerous or stringent assumptions required when choosing a parametric statistical test. In addition, nonparametric tests focus on the order or ranking of the data collected. This allows the researcher to see if there are any relationships between variables. If results are significant, then further research can be conducted on other aspects of the study.

The null hypothesis has been assumed for all hypotheses stated in Chapter I. This hypothesis states that the relationship between the two types of teacher influence and understanding of children's behavior is zero. Acceptance or rejection of each hypothesis is based upon the coefficients obtained from each application of the
statistical test. These coefficients are presented in Table I.

The data appearing in Table I are discussed in relation to the hypothesis to be tested in the study as they appear in Chapter I.

The first hypothesis, which predicts no relationship between socially integrative behavior and understanding of children's behavior, is accepted. There is a positive relationship between these two variables, but the computed $r$ value of 0.129 is not statistically significant. The hypotheses predicting no relationships between each of the subscales for understanding of children's behavior and socially integrative teacher behavior are accepted also. The sensitivity subscale score is close to being negatively significant in its relationship to socially integrative teacher behavior ($r = -0.324$). The knowledge subscale score, on the other hand, is close to being positively significant ($r = 0.389$), while the guidance subscale score has a statistically insignificant positive relationship to integrative teacher behavior ($r = 0.238$).

The second hypothesis which predicts no relationship between dominative teacher behavior and understanding of children's behavior is also accepted. While it is not statistically significant, a positive relationship, $r = 0.217$, does exist. In addition, the relationship between dominative teacher behavior and the knowledge, guidance, and sensitivity subscales are all accepted. The relationship between dominative teacher behavior and knowledge is close to being
Table 1. The acceptance or rejection of the null hypothesis for the relationship reported in terms of Spearman's rank order correlation coefficient between dominative and integrative behavior and the FUB.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Recorded Relationship</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dominative and Knowledge</td>
<td>-0.343</td>
<td>accept</td>
</tr>
<tr>
<td>2. Dominative and Guidance</td>
<td>0.268</td>
<td>accept</td>
</tr>
<tr>
<td>3. Dominative and Sensitivity</td>
<td>0.003</td>
<td>accept</td>
</tr>
<tr>
<td>4. Dominative and Total FUB score</td>
<td>0.217</td>
<td>accept</td>
</tr>
<tr>
<td>5. Integrative and Knowledge</td>
<td>0.389</td>
<td>accept</td>
</tr>
<tr>
<td>6. Integrative and Guidance</td>
<td>0.238</td>
<td>accept</td>
</tr>
<tr>
<td>7. Integrative and Sensitivity</td>
<td>-0.324</td>
<td>accept</td>
</tr>
<tr>
<td>8. Integrative and Total FUB score</td>
<td>0.129</td>
<td>accept</td>
</tr>
</tbody>
</table>
negatively significant at $r = -0.343$, while sensitivity has a very small insignificant, positive correlation ($r = 0.003$), and guidance is positively, although not significantly, related to dominative teacher behavior ($r = 0.268$).

In an attempt to explain why none of these relationships were significant when subjected to statistical testing, further analysis of the data was conducted. This included an analysis of the difference between the integrative and dominative behaviors, and an analysis of the I/D ratio as both relate to each of the subscales of the FUB and the total score. In addition, an analysis was conducted to see if there was a significant relationship between the dominative and the socially integrative teacher behaviors. The results of this further analysis appear in Table II. A discussion of the reasons for the insignificant findings of these results as well as a further explanation of why this statistical testing was carried out on these particular relationships will be presented in the next chapter.
Table II. The acceptance or rejection of the null hypothesis for additional relationships examined reported in terms of Spearman's rank order correlation coefficient.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Recorded Relationship</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Difference between I-D* and:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Knowledge</td>
<td>0.302</td>
<td>accept</td>
</tr>
<tr>
<td>B. Guidance</td>
<td>-0.181</td>
<td>accept</td>
</tr>
<tr>
<td>C. Sensitivity</td>
<td>-0.201</td>
<td>accept</td>
</tr>
<tr>
<td>D. Total FUB Score</td>
<td>-0.221</td>
<td>accept</td>
</tr>
<tr>
<td>2. I/D Ratio and:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Knowledge</td>
<td>0.311</td>
<td>accept</td>
</tr>
<tr>
<td>B. Guidance</td>
<td>-0.228</td>
<td>accept</td>
</tr>
<tr>
<td>C. Sensitivity</td>
<td>-0.201</td>
<td>accept</td>
</tr>
<tr>
<td>D. Total FUB Score</td>
<td>-0.306</td>
<td>accept</td>
</tr>
<tr>
<td>3. Dominative and Integrative Teacher Behavior</td>
<td>0.025</td>
<td>accept</td>
</tr>
</tbody>
</table>

*Integrative minus dominative.
DISCUSSION

This study proposed to explore the relationship between teacher behavior and understanding of children's behavior. The theoretical basis used suggests that patterns of teacher influence in the classroom are related to the climate of the classroom and, hence, the teacher's understanding of children's behavior in the classroom. Thus, the two primary patterns of observed teacher influence, dominative and integrative behaviors, were correlated with a behavioral understanding measurement instrument. None of the relationships which were examined were large enough to be statistically significant. These results limit the possibilities of using teacher understanding of children's behavior as a way to predict the teacher's behavior. However, it is possible to make some generalizations about teacher influences as they relate to behavioral understanding.

Three main issues will be considered in this discussion chapter. The first pertains to the relationships which were found to exist between the variables, the second to the limitations which may have influenced the results, and the third pertains to implications for future research suggested by the results.
Evaluation of the Findings

The findings of the study are discussed below. In evaluating these findings, careful consideration of the limitations of the study and of the results must be kept in mind.

Although none of the results from the initial hypotheses were significant, some interesting results did appear. In relation to the total FUB score, neither dominative nor integrative teacher behaviors were significantly related although dominative behavior was more significant than was integrative behavior. There are two main reasons for this: 1) dominative behaviors are easier to agree upon between observers and are easier to observe and record; and 2) from observations of the student teacher aides interacting with the children, there was a perception that behaviors, particularly integrative behaviors, were often used inappropriately by the student teacher aides. An example of an inappropriately used integrative teacher behavior would be the use of a question extending an invitation to a child to help at clean up time when the teacher actually wants the child to help put away toys.

By breaking the total FUB score down into its component parts, a more complete explanation of what happened to the results can be presented. The first relationship to be examined will be that of the correlation between dominative and integrative behaviors and
knowledge. Although neither teacher behavior is significantly related to the knowledge subscale, it is important to note that dominative behavior was negatively related in this study. This result is consistent with Anderson's conception of dominative behavior, which is based upon traditions of an authoritarian adult role in the classroom rather than on knowledge of classroom interaction. The positive relationship between knowledge and integrative behavior is also consistent with Anderson's concept of this type of behavior. He states that integrative behavior is consistent with the concepts of growth and learning necessary to understand individualism, originality, and the democratic process.

Secondly, the importance of both dominative and integrative teacher behaviors for understanding of children's behavior is indicated by the positive relationship of these variables to the guidance variable. It is also important to note the similarity of these coefficients. This result is consistent with Flanders' contention that both dominative and integrative behaviors are necessary for appropriate guidance of children. His criterion for the use of dominative, or direct, behaviors is clearly specified goals or expectations during the period of dominative behavior. Further, he believes that at such times, domination may provide challenges for the pupils to the point of enriching the learning process (Flanders, 1967).
Finally, the most surprising result from this study is the fact that integrative behavior had a negative correlation to the sensitivity subscale for understanding children's behavior. This is unexpected because the review of literature indicates that this is the more child centered approach and therefore the more desirable behavior to initiate in the classroom; and theoretically, it should be positively correlated to understanding of children's behavior. This result would seem to indicate that the teacher behavior most appropriate for the situation is the more desirable behavior; and that many of the behaviors recorded were inappropriate for the situation in which they were used.

These results seem to indicate that even though the beginning practicum student teacher aides tended to use a lot of integrative behaviors when they interacted with the children, the behaviors were not always appropriate for the situations and therefore they did not indicate an understanding of children's behavior. Rather, an awareness of one approach to children seems to be apparent. In other words, student teachers at this level have not yet developed consistently appropriate behaviors to deal adequately with situations that arise in the nursery school.

Because none of the previously discussed relationships were statistically significant, other relationships involving the differences between integrative and dominative behaviors and the I/D ratio,
which is an indicator of classroom climate, were explored. It was thought that these might give insight into the relationship between dominative and integrative behavior and its relationship to understanding of children's behavior.

The former established that differences which existed between the scores were not statistically significant when correlated to the total FUB score and its subscales. (It is important to note that for all subjects in the study more integrative behaviors than dominative behaviors were observed,) The only positive correlation to exist was with knowledge which follows from the previous discussion of the correlation between integrative behavior and knowledge. All other relationships were negative, supporting the contention that integrative behaviors may have been inappropriately used. The I/D ratio correlations further support these conclusions.

One important point to note is the positive correlations which exist when dominative and integrative behaviors are individually correlated to guidance and the negative correlations which exist when the difference between integrative and dominative behaviors and the I/D ratio are correlated to guidance. The positive correlation is a result of both types of behavior being an important and integral part for the appropriate guidance of children. However, when the relationship between the two types of behavior and guidance is correlated, this correlation becomes negative. Once again, this demonstrates
the emphasis on the integrative behaviors rather than on the appropriate behavior for a given situation.

Limitations Influencing the Results

In this section, some of the limitations which may have influenced the relationships found between the variables will be discussed. Two general groupings of limitations will be discussed: 1) limitations pertaining to procedural weaknesses; and, 2) limitations pertaining to the results coming from the study that might cause difficulty in interpretation.

Limitations in procedure

There are three major limitations to be considered here. The first deals with establishing reliability between observers. An attempt was made to control for this by establishing reliability category by category prior to the administration of the observation instrument on the subjects used in this study. The overall correlation coefficient obtained for the two observers used in this study was $r = 0.829$. For the dominative behavior categories, the correlation coefficient was $r = 0.744$. For these categories, it must be noted that in several instances, because of the fewer number of dominative behaviors observed and recorded, it was necessary to talk about agreement in terms of the percentage of times zero number of
observations was agreed upon. Six of the ten dominative categories fit into this grouping. For these categories, the percentage of agreement ranged from 71% to 90%. For the integrative behavior categories, the correlation coefficient obtained was \( r = 0.845 \). Two categories in this grouping must be considered in the number-of-times-zero-was-agreed-upon grouping as well. Their percentages of agreement were 71% and 76%. For a further breakdown of this information, see Appendix D.

The second procedural limitation is that of a small sample size and the fact that the subjects in this study choose to participate. These two facts taken together make the sample used in the study a select group rather than a random population.

The third limitation is that the subjects in this study came from three different preschool programs with different supervising teachers and different children. In addition to these variables, variables outside the nursery school which might have influenced the results of this study were not controlled. These included past or current experiences with children, additional classwork in child development, child psychology, or elementary education other than the minimum required for entrance into the class.

**Limitations from the results**

The primary consideration here is that none of the relationships investigated were significant. This is probably the most important
limitation; and it emphasizes that extreme care must be taken when reading the results and the discussion of this study. Beyond this, there are two limitations which must be considered in any discussion of the results. These are: 1) the emphasis of the time when Anderson developed his instrument as opposed to the current emphasis in nursery school teaching; and, 2) the limited number of observed behaviors in some of the categories.

The current emphasis for teachers who work with young children is a child centered approach. During Anderson's time, the emphasis was on the authoritarian adult role in the classroom. This affects the types of behaviors which tend to be observed and recorded. The observers in this study were both aware of the current emphasis and have both had experiences with the current emphasis in their training. This obviously influences subconsciously the types of behaviors they are aware of and tend to record.

This emphasis also influences the categories which were recorded most often on the observation blank. Some of the categories are no longer of much use in evaluating the teacher behaviors which occur in the child centered nursery school.

Implications for Future Research

The findings of this study, even though they are limited, are not so limited as to suggest that the general hypothesis is irrelevant,
that is, the reliable and valid score of a person's understanding of children's behavior can be obtained from a film test and that teacher influences can be observed and correlated with this understanding. The findings do emphasize the need for a more precise measurement for both understanding of children's behavior and observation and evaluation of teacher influences. In addition, it is important to note that there are no significant results in this study; however, with the passage of time, teachers influences may become significantly related to the teacher's understanding of children's behavior. In other words, as these student teacher aides used in this study continue their studies and continue to have experiences with children, their ability to understand children's behavior may be reflected by their ability to use appropriate teacher behaviors in their interactions with the children.

The procedures and limitations sections of this study suggest numerous implications for improving the design of this study as it presently stands. The same general hypothesis could also be tested by using variations of the present design and procedure. For instance, 1) student teacher influences in the classroom might include supervising teacher observation and evaluation as well as student teacher aide perceptions of their behavior as teachers; 2) more total observation for each subject in the study could be done to give a more accurate account of the subject's interactions with children; 3) since a linear relationship does not exist between the variables
investigated in this study, future researchers might want to investigate the statistical relationships between these variables jointly or in combinations of relationships. For example, knowledge and guidance, or knowledge and sensitivity, or knowledge, sensitivity and guidance may be jointly related to the types of teacher influences.

There is one final implication for future researchers to consider. During the course of this study, it became apparent that Anderson's instrument measured only verbal interactions. Future researcher may want to consider some means to measure nonverbal interaction of the teachers and the children. This may be especially important since the FUB is a silent film which relies on visual cues for responses to the statements on the behaviors of the children seen in the episodes.
SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to investigate the relationship between the teacher influences of beginning practicum student teacher aides and their understanding of children's behavior. A nonparametric statistical test of rank order correlation was used to determine the correlations between the two teacher influence variables and the four measures of behavioral understanding. Anderson's Teacher Behavior Categories was used to measure the former, while The Film Test for Understanding of Behavior (FUB) was used to measure the latter.

Thirteen Child Development and Nursery School Teaching majors taking their initial practicum course were the subjects for the study. The subjects were chosen on the basis of their willingness to participate in the study, on the basis of their major, and on the basis of classwork which each had completed.

Conclusions

In this study of the relationship between teacher behaviors and the teacher's understanding of children's behavior, no significant correlations were found between these variables. There appear to
be two reasons why this occurred: 1) the subjects in this study apparently focus on one approach to interact with the children rather than on teaching behaviors appropriate for the situation; and 2) the subjects have not yet developed consistently appropriate teaching behaviors.

Future research along the lines taken in this study should probably concentrate on the development of a relationship over time and on the relationship between integrative and dominative teacher influences and their relationship to understanding of children's behavior. However, the first step to be taken for future investigations of these relationships should be the refinement of a measure for observation and evaluation of teacher behavior.
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APPENDICES
APPENDIX A

H. H. Anderson's Teacher Behavior Categories

Observation blank:

"An observation blank was devised to provide space for five minutes of observation. The blank, which was adopted after experimentation with two other forms, is shown (on page 91). It has the names of the categories of teacher contacts on the horizontal rows. It will be noted that there were no categories for numbers 11 to 14 inclusive. These numbers designated categories on previous experimental forms of the observation blank which were finally combined with other categories... For aid in recording categories quickly, two additional columns guide numbers were inserted in the blank" (Anderson, 1945, p. 22).

Categories:

1. Determines a detail of activity or acts for the child in carrying out a detail.

   Includes the instances where T(teacher), in order to rush through to an end, goes ahead and does things for the child.

   T: "You will have to fold yours like this."
   "We won't play that game any more."

2. Direct refusal.

   T: answers, "No" to a direct request.

3. Relocating, reseating or placing children in different relation to each other or to property, i.e., different from the relation which the children have themselves selected.

   T: "Henry, Janet, Sam, please sit down."
4. Postponing, slowing up the child.

T: "Not now."
   "Wait a minute."
   "Later on."

Holds fast ones back.
Obstructs differentiation, originality, individual differences, variability within a group.

T: "Betty Lou, go back and wait until I come around."
   "Wait at your place until I give you one."

5. Disapproval, blame, or obstruction.

T: "Hurry up" implies disapproval
   "I'm waiting."
   "One little boy--I don't see his eyes at all."

6. Warning, threats, or conditional promises

T: "I don't want to speak to Henry, Sam, and Janet again."
   "Now if we all sit nicely and keep our hands to ourselves, we might have two stories."

7. Call to attention or to group activity.
Call to attention during group activity.

T: "Girls and boys........"
   "Let's see who is listening."


T makes decisions as to amount, kind, etc., e.g. amount of paste, amount of grass for rabbit nests. (Implication is that rationing of materials is psychologically more than an administrative convenience; it deprives the child of an opportunity to exercise his own judgement, to decide for himself how much it will take for the job at hand; and for this reason it is an expression of T domination.)
9. Lecture method

T gratuitously defines a problem or anticipates the question and gives the answer. (The "sez you" category.) E. G., T, passing out paper:

T: "The paper is to keep the paste off the tables."

T: "You won't need any scissors." (check #9)
(But) "Don't get your scissors." (check #1)

10. Questions: Lecture method

Questions where the answers are in the back of the book or in the teacher's experience.

T: "What did the birdie say?"
If there is only one answer, then check #10.
If the child is permitted to give an imaginative answer, then check under #19 or #20.

11. - 14. inclusive deleted on the blank.

15. Perfunctory question or statement.

Indifferent "Thank you's."

T: "Isn't that interesting?"--a bare response, but a response never-the-less.

16. Approval. Includes rewards, prizes, competitive favors.

T: "I think that's fine."
"Billy's row is standing the straightest."

17. Accepts differences.

Observer must be alert for negative votes, declinings, expressions of difference, conflicts of difference. Whenever T makes an offer or gives an invitation, and the child declines, some category should be checked for T's response: She either accepts the difference (#17); or she reproves (#5); or she renews her request (#18), e. g.,
T: "Jimmy, would you like to sing this one (song) up here? (beside T)"
   Jimmy declines.
T turns to another child. (Check rank order for Jimmy, #18, Extends invitation; check the other child, rank order for #18; check Jimmy for #17. Accepts difference.)

18. Extends invitation to activity

T: "Who wants to be a pony?"
   "Who wants to be a robin?"
   Call for a show of hands. The choice rests with the children. It must be obvious that there is no element of exhortation and that a child can still decline. Under few circumstances will an invitation be made more than twice without obvious attempts to exhort; in which case check #1. A teacher's contact in category #1 cannot be declined without further exhortation or disapproval.

19. Question or statement regarding child's expressed interest or activity.

Carries no presumption of opposition, antagonism, disapproval, or urging

T: "Dickie, are you waiting for paste?"
   "How are you getting along?"

Includes the ice-breaker conversation.

T: "Do you have a dog at home?"

20. The build up. Highly integrative behavior.

Includes instances where T helps child to arrive at a better definition of a problem or a better solution, without giving the final answer.


Offers help, offers to participate. (Children playing ball. Ball rolls over near T who returns it.)
22. Sympathy

T:  "I'm sorry you hurt your finger."

23. Permission. T grants permission to child's request.

  e.g.,  "May I get a drink?"
        "May I pass the cookies?"

(Anderson, 1939.)
<table>
<thead>
<tr>
<th>Rank order</th>
<th>Activity</th>
<th>Observer</th>
<th>Date</th>
<th>Time elapsed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Deter</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Direct Ref</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Relocates</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Postpo</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Disapp blame obs</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Wrn thrt cond-pr</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Call grp act att</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Ration material</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Le method</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Q le method</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
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<tr>
<td>12.</td>
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<td>13.</td>
<td></td>
<td>13</td>
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</tr>
<tr>
<td>14.</td>
<td></td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Perfunctory Q or S</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Approv</td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Accepts diff</td>
<td>17</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Extend invit</td>
<td>18</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Q or S re I or A</td>
<td>19</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Build up</td>
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<td>20</td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Par &amp; Act</td>
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</tr>
<tr>
<td>22.</td>
<td>Sympathy</td>
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</tr>
<tr>
<td>23.</td>
<td>Permission</td>
<td>23</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>Undetermined</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
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</table>
APPENDIX B

Directed Experience with Preschool Children
F1 425

Objectives: students will be able to:

A. Complete a written summary of individual children's developmental status with diagnosis and prescriptive suggestions. This will be based on the students' observations throughout the quarter in relation to the components of the educational program model for young children studied in class.

B. Interact with preschool children utilizing concepts, assumptions, and possible alternative teacher behaviors which develop a child's positive attitudes toward learning and self-concept.

C. Verbally identify curricular methods, materials and activities which enrich children's ability to learn.

D. Verbally identify environmental factors which relate to the functioning of an educational program for young children.

Course focus:

Students will participate in a child development laboratory one half day a week and participate in class discussion each Friday A.M. The laboratory participation consists of fulfilling an aide role which focus on:

A. Observing - the observer collects, organizes, and presents written study of two children's developmental status; provides diagnostic summary and prescription for future activities. Student rotates 1/2 day on both collecting data in anecdotal form and 1/2 day on floor. Student should consult Developmental Status categories for observational guidance. These developmental status reports will be used not only for current diagnostic and perscriptive work, but also for continuous individual progress reports.
B. Participation with the Children

1. Assist in setting up the environment as assigned by the Head Teacher, Graduate Assistant of Fl 427 or 429 students.

2. Interact with children from an assigned learning center under guidance. Interaction techniques: a. Enjoy interaction with children; b. Use of positive guidance statements; c. Use of positive reinforcement; d. Intervene in situations that require teacher guidance--such as redirection, channeling behavior, restraint, isolation--and is able to state reason for particular intervention decisions as well as alternatives that might be possible.

3. Participate verbally in pre- and post-session conferences.

4. Is able to interact in a one to one situation with children and is also aware of other children and situations in the immediate area.

5. Is able to interact in a small group situation with children and is aware of individuals within the group as well as children on the periphery.

The class (Friday meeting) will focus upon a particular model of preschool education, i.e., "The New Nursery." Each student will be responsible for the required reading and verbal participation in the class discussion.
APPENDIX C

Background Information

Please fill out the information below. It will be held in strictest confidence and in no way will it affect your class grade. Please read and follow directions carefully. If you have any questions, please ask them. Thank you.

Name ___________________ Age _____ Sex _____ College Major __________

Marital Status ______ No. of Children _____ Year in School (no.) ________

Grade point average (based on A=4) __________

Occupation: Father ___________ Years (number of schooling completed by):

Mother ___________
Husband ___________
Wife ___________
Yourself ___________

Number of brothers ___________ Ages of brothers ___________

Number of sisters ___________ Ages of sisters ___________

B. List additional courses you have taken or are now taking at Oregon State University in the appropriate space below. From that list and the one shown (1) Circle courses you have taken, and (2) place a rectangle around those courses in which you are now enrolled.

Family Life:
F1 222 F1 311 F1 413 F1 425 F1 428 F1 481
F1 223 F1 312 F1 421 F1 426 F1 430
F1 225 F1 322 F1 423 F1 427 F1 435

List other courses:

Sociology:
Soc 204 Soc 205 Soc 206

List other courses:

Anthropology:
Anth 207 Anth 208 Anth 106X

List other courses:
Education:
List courses:

Psychology:
Psy 200

C. List any previous experiences you have had with children (i.e., baby sitting, teaching, etc.)
APPENDIX D

Reliability Obtained Between Observers

<table>
<thead>
<tr>
<th>Category</th>
<th>Reliability Coefficient</th>
<th>Percentage of Agreement on Zero</th>
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</thead>
<tbody>
<tr>
<td>Overall correlation</td>
<td>0.829</td>
<td>49.8%</td>
</tr>
<tr>
<td>Dominative teacher behaviors</td>
<td>0.744</td>
<td>62.8%</td>
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<tr>
<td>Integrative teacher behaviors</td>
<td>0.845</td>
<td>33.3%</td>
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Categories:

1. Deter                                0.825
2. Direct Ref                           ----
3. Relocates                            ----
4. Postpo                               0.517
5. Disappr blame obs                    ----
6. Wrn thrt cond-pr                     ----
7. Call grp act att                     ----
8. Ration material                      ----
9. Le method                            0.646*
10. Q. le method                        ----
15. Perfunctory Q or S                  0.686
16. Approv                              0.632
17. Accepts diff                        0.554
18. Extend invit                        0.295
19. Q or S re I or A                    0.573
20. Build up                            0.471
21. Par & Act                           0.520
22. Sympathy                            ----
23. Permission                          ----
24. Undetermined                        ----

*0.600 correlation is considered to have good validity in Child Development and, therefore, is satisfactory for predictive purposes.
### APPENDIX E

#### Data Tabulation

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<tr>
<th>Subject</th>
<th>Knowledge</th>
<th>Guidance</th>
<th>Sensitivity</th>
<th>Total Score</th>
<th>Anderson's Categories</th>
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|            |           |           |             |             |           |           |
| Mean       | 6.4       | 12.5      | 7.5         | 26.5        | 52.1      | 97.7      |
| Median     | 5         | 13        | 7           | 24          | 45        | 95        |
| Mode       | 5         | 13        | 7           | 24          | 31        | none      |
| Range      | 10        | 25        | 13          | 36          | 72        | 32        |