AN EXPLORATORY STUDY OF THE RELATIONSHIPS BETWEEN PERSONALITY AND RISK-TAKING VARIABLES AND CLASSROOM INTERACTION PATTERNS

By

CHERYL ANN KILPATRICK

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Southeastern State College

Durant, Oklahoma

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Thesis Approved:

Robert L. Schlatter
Thesis Adviser

Kenneth D. Sandvold

Harry K. Bybee

D. Durham
Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Within recent years, the American education system has been permeated with a tremendous concern for the achievement of relevance within the classroom. Students have begun to question and challenge the meaningfulness of a system which has experienced few changes since the time of its inception. In addition, many educators and intellectuals have also extended the plea for relevance. Postman and Weingartner (1969) note the statements made by a number of these individuals. While Marshall McLuhan has called today's schools irrelevant, Norbert Wiener says they prevent students from experiencing reality. John Holt purports that the education system is based on fear, and Edgar Friedenberg contends that it punishes creativity and independence. In their recent book, Postman and Weingartner (1969) propose a means of renovating the educational system so that the student becomes the central figure in education. Thus, it becomes his feelings, his ideas, and his questions which dominate and direct classroom activity. These authors refer to this modus operandi as the method of inquiry. They feel that it enables students to learn that which is meaningful to them without fear of reprisal.

If one examines their thesis, it becomes apparent that these authors are espousing essentially the same doctrine that John Dewey proposed much earlier. Dewey maintained that the individual learns what he

does. He conceived of the laboratory school as a place in which a child learns through directed living (Dewey, 1897). Postman and Weingartner explicitly extend Dewey's thesis by contending that the student who learns to question and to challenge in the classroom also learns to question and challenge throughout all phases of his life. If this is what the student does in school, this is what he learns.

A number of researchers who have observed the interaction process within the classroom have verified empirically that this is generally not what occurs. Flanders (1965) summarizes the results that he and others have obtained in what has been referred to as the "rule of two-thirds:" in the average classroom someone is talking two-thirds of the time; two-thirds of this is teacher talk; and two-thirds of teacher talk consists of direct influence or lecturing, direction giving, and criticizing. Bellack et al. (1965) observed fifteen high school teachers for four days. They developed a scheme for analyzing pedagogical moves in the classroom. Through their observation, it became evident that teachers performed most of the structuring and soliciting moves while students supplied the responding moves. Gallagher (1965) has pointed out that students generally respond in terms of cognitive memory, taking their cues from rather rigid patterns of teacher stimulation. This observation suggests that student initiative and independent thinking are not encouraged in classroom discourse.

These empirical findings coupled with the demand for relevance in education suggest that it might be profitable to consider student-teacher interaction from the standpoint of the student. Although much research on this subject has been done, it has generally been approached within the framework of effective teaching. Thus, the emphasis has been

upon the teacher rather than upon the student. It is the contention of this writer that there may also be significant student variables which influence classroom interaction patterns.

CHAPTER II

PROBLEM

As noted in the preceding chapter, little attention has been given to the study of student characteristics which influence classroom interaction patterns. Instead, this phenomenon has been studied primarily from the standpoint of teacher attributes which influence the interaction process. The effects that such variables as teaching patterns, classroom climate, and teacher personality exert upon classroom interaction have repeatedly been investigated within this framework.

A number of significant results have been noted in the area. Early studies by Anderson et al. (1939, 1945, 1946) found that the classroom behavior of kindergarten students is highly correlated with that displayed by the teacher. They found that when a teacher's behavior could be classified as primarily dominative or integrative the same type of behavior became prevalent among the students. A teacher whose mode of response was integrative had pupils who exhibited more spontaneity and more initiative than those having teachers characterized as dominative. Students of the latter teachers were more aggressive and non-cooperative.

Flanders (1951) investigated the classroom climate variable in a somewhat different manner. He found that pupil attitudes, specifically of a positive or negative nature, were associated with indirect and direct teacher influence, respectively. In a study confirming Flanders' findings, Johns (1966) noted that students of teachers using indirect

methods of influence were more prone to ask thought-provoking questions during class discussions.

Bowers and Soar (1961) attempted to relate teacher personality to observed teacher behavior in the classroom. They found that teachers who scored high on the Pd and Sc scales of the MMPI generally had less supportive emotional climates in the classroom and also less extensive pupil-pupil interaction. Using the California Personality Index, Allred (1966) noted that student teachers scoring high on several CPI scales (for example, Good Impression and Well-Being) were more restrictive of pupil verbal participation than were low scorers on the same scales.

Numerous other studies have investigated additional facets of classroom behavior. As the studies to be cited in the literature review will further illustrate, most of this research has focused upon the teacher's role, and in addition, most of it has been conducted within the public school system. Furthermore, in many instances the interaction process itself has constituted only a peripheral aspect of study. Therefore, there exists a dearth of information about the attributes which demarcate the college individual who is active in classroom participation from the student who contributes moderately or from the individual who makes virtually no addition to the ongoing activity. One study (Rubin, 1970) did examine the student's role in classroom interaction but reported no significant relationships between classroom participation and the following variables: locus of control, self-esteem, past academic achievement, and achievement in the course.

That the student's characteristics are as important as those of the teacher has been suggested in a study by Amidon and Flanders (1961). They found that eighth grade students classified as dependent were

differentially affected by the mode of teacher treatment. While other students showed no differential effects due to teaching style, dependent students learned more geometry when instructed by teachers using an indirect style, that is, when their ideas and opinions were acknowledged by the teacher and deliberately incorporated into the classroom activity.

In addition to empirical studies such as the one above which suggest that the student's characteristics may play a part in what occurs within the classroom, there are more subjective indicators that this may be the case. John Holt (1967) contends that the school induces fear in the student. He notes that the young child, who is a perpetual questioner, is vitally involved in the learning process until he reaches the age for formal schooling to begin. Within the classroom, he quickly learns that some questions are not appropriate and that others will be answered only at specified times. He learns that he must behave as instructed and that it is important to do what pleases the teacher. Holt says children become "humiliated, frightened, and discouraged. They use their minds, not to learn, but to get out of doing the things we tell them to do" (1967), p. vii). As Albert Ellis (1961) has succinctly stated, the individual in modern society is propagandized to fear making mistakes and taking risks while being indoctrinated to believe that one must always be right. John Holt points out that this process has an early beginning in the school system. Flanders (1965) has collected data which demonstrates that the process has long-lasting effects since most classroom interaction is dominated by the teacher.

The preceding points also suggest that the student's characteristics and feelings play as important a role as the teacher's in

determining what occurs within the classroom. If John Holt is correct in saying that the school induces fear in students, it seems logical to assume that certain elements of risk taking may be implicit within the school environment. Perhaps class participation can even be construed as one type of risk situation. The two elements used by psychologists to define a risky situation seem to be inherent in the classroom; these include a degree of uncertainty about attaining a desirable goal and the threat of negative consequences in the event of failure. Since the student may not be aware of the outcome of asking a question, there does exist an element of uncertainty. In addition, some degree of negative consequences may also be present for certain individuals at least. Therefore, the feasibility of conceptualizing classroom interaction patterns in terms of risk-taking behavior is indicated.

Relevant to this speculation are a number of studies investigating the risk-taking variable. Kogan and Wallach (1964) have noted that individuals possess varying risk-taking dispositions. In a series of studies involving a variety of risk-taking tasks, they found that high defensive males and high test-anxious females were unable to adjust their strategies in a final bet situation. They concluded that these individuals, whom they described as "motivationally disturbed," were unable to use prior success-failure experience in modifying their risk-taking behavior. Results of this nature suggest the possibility that personality variables may exert a differential effect upon risk-taking behavior. Even though such findings have been established under quite different conditions than those occurring within the classroom, it seems plausible in light of the preceding discussion, to assume that both risk-taking and personality variables may be operable within the

classroom setting and that these variables can be investigated in relation to classroom interaction patterns.

Speculation concerning the preceding points raised a number of questions which had not been previously investigated. Therefore, it was the purpose of this study to investigate student participation in the classroom from the student's standpoint. Specifically, the attempt was made to delineate risk-taking and personality variables which may be influential in determining whether a student will initiate or participate in verbal interaction within the classroom.

The specific variables selected for study include cognitive flexibility, behavior in a social situation, and deterrence for failure in a variety of risky situations. To assess cognitive flexibility, two scales from the Omnibus Personality Inventory (OPI) were used. These included Complexity (Co) and Autonomy (Au). An individual's typical response to a social situation was measured by the Social Extroversion (SE) and Anxiety Level (AL) scales. The Dilemmas-of-Choice questionnaire developed by Kogan and Wallach was utilized to determine an individual's willingness to take risks.

The investigation attempted to identify any relationships that might exist between the variables mentioned above and the feelings that students indicated they experienced concerning initiating and participating in classroom discourse. It was felt that Ss who purported to be highly inhibited in classroom interaction could be distinguished from those who professed feelings of moderate inhibition and also from those expressing few feelings of inhibition. The study was conducted to ascertain if the hypothesized differences did exist and also to determine in what directions these differences might occur.

CHAPTER III

REVIEW OF THE LITERATURE

This literature review will be divided into four sections: (1) risk-taking behavior, (2) classroom interaction patterns, (3) the Omnibus Personality Inventory, and (4) the summary.

Risk-Taking Behavior

The experimental literature is replete with investigations dealing with various aspects of risk-taking behavior. Before surveying some of this literature, it might be beneficial to consider precisely what constitutes risk taking. In general, there are two aspects common to those decision situations that are characterized as risky; these include lack of certainty and the prospect of failure or loss (Kogan and Wallach, 1967). Considering these two elements, it becomes apparent that the risk-taking concept is indeed a pervasive one. In addition to such matters as institutionalized gambling, definitely considered a risky affair by most individuals, numerous everyday decisions can also be classified under a risk-taking rubric. Driving a car, selecting a marriage partner, or buying bonds in a fluctuating market all involve some element of risk. In the language of decision theory (Luce and Raiffa, 1957), situations of the latter type are actually referred to as "decision under uncertainty" while a gambling situation would be termed "decision under risk." The distinguishing characteristic is the

availability of concrete objective probabilities; obviously, these are absent in most mundane situations and more likely to be obtainable in some sort of gambling situation. Nevertheless, researchers in general continue to speak of risk taking in the broader respect already described. Thus, if a situation involves a degree of uncertainty about attaining a desirable goal and somewhat less importantly, the threat of negative consequences in the event of failure, it has been construed as a situation which elicits risk-taking behavior.

Psychologists and other behavioral scientists have repeatedly attempted to predict what individuals will do in such choice situations where alternatives vary in probability of occurrence and value. When probabilities and values have been quantifiable, various mathematical models have been generated. However, Kogan and Wallach (1967) note that the model builders cannot claim a very auspicious record. A significant reason for their lack of success lies in their attempt to conceptualize human decision-making behavior as a completely deterministic matter. Their failure adequately demonstrates the efficacy of employing a risk-taking concept which allows for both individual differences in risk-taking dispositions and differences in the context or circumstances under which decisions are made. According to Kogan and Wallach (1967), these variables are the ones which a risk-taking construct is able to incorporate. A survey of the literature quickly convinces one of the vast amount of experimental effort which has been devoted to the study of these two classes of variables. Since the primary concern of this research deals with individual differences in classroom participation and some possible correlates of this behavior, studies examining individual differences in risk taking will be the ones cited here. In

passing, it might be noted that research treating situational influences on risk taking generally covers such topics as chance and skill contexts, real versus imaginary incentives, and effects of prior gains and losses.

One set of variables which have been examined in search of specific risk-taking propensities are demographic in nature. Kogan and Wallach (1959; 1961) investigated sex differences in adult subjects using the hypothetical choice-dilemmas task. Subjects were both college age individuals and elderly men and women. On this task, the authors detected no over-all sex differences. They did note, however, that some differential risk taking in specific areas was present. These areas could be distinguished as containing content which possessed either distinctly masculine or feminine values. The authors concluded that the feminine stereotype of greater conservatism was not an adequate explanatory concept. Rather it appeared that both sexes were willing to tolerate higher levels of risk in pursuit of values considered more sex appropriate. Kogan and Wallach (1964) also looked for sex differences in laboratory decision-making tasks having monetary payoffs. Again, the results did not support a concept of feminine conservatism. In fact, on information-seeking tasks, women exhibited substantially more risky behavior than did men. In general, the authors concluded that their research did not warrant making a clear-cut dichotomy between female conservatism and male riskiness.

Turning to the consideration of age differences in risk taking, there again exists a dearth of research specifically oriented to the consideration of this problem. However, Kogan and Wallach (1961) compared risk preferences on the Dilemmas-of-Choice questionnaire for two

samples matched for intelligence. One was a group of college students and the other a sample of elderly subjects with a mean age of seventy. Younger subjects were considerably more risky in their questionnaire choices than were their older counterparts. Age differences of this range have not been investigated in laboratory settings.

Perusal of the research upon personality and motivational correlates of risk-taking behavior makes it apparent that a vast amount of study has been generated by the McClelland-Atkinson theory of achievement motivation (1953). Some of this literature has a direct relationship to the phenomenon of risk taking. In fact, some element of a risk-taking construct is incorporated into the theory of achievement motivation. In Atkinson's theoretical formulation of the relationship between achievement and risk taking (1957), an inverse relationship is posited. This means that if a task is quite easy (i.e., has a high subjective probability of success) its incentive value is low. On the other hand, a difficult task (one having a low subjective probability of success) should possess high incentive value. In addition to these components of the model (achievement motivation and risk taking, respectively), which derive specifically from the decision task, there are also motive constructs or characteristics brought into the situation by the individual. These include the motive to achieve success and the motive to avoid failure.

In an achievement-related situation, these motives together with the expentancies and incentives inherent in the situation combine to determine the extent of risk-taking behavior that will occur. The theory predicts that those individuals who have a strong motivation to achieve success prefer moderate risks while individuals with strong

motivation to avoid failure can be predicted to choose extreme alternatives at either end of the continuum.

Atkinson et al. (1960) conducted the first investigation of the theory's predictions. High and low need achievers were compared on the distance they stood from the target in a modified shuffleboard game. They found that high need achievers selected intermediate distances (moderate risks) to a significantly greater extent than did low need achievers. The latter group selected distances which were amassed at the risky extreme rather than being distributed between the risky and conservative ones.

Another study by Atkinson and Litwin (1960) provided further confirmation of the relationship between achievement motivation and risk taking. This study utilized both a need achievement and a test anxiety measure. Thus, four subgroups were formed; these included individuals high in both the motive to achieve success and to avoid failure, those low in both, and those high in one but low in the other. As anticipated, the individuals displaying high need achievement and low test anxiety more often selected intermediate risks in a ring-toss game while individuals categorized as being low need achievers but possessing high test anxiety preferred either extremely risky or conservative alternatives.

Thus far, the studies noted have dealt with tasks administered in a competitive, but gamelike situation. Smith (1963) conducted a study which focused directly on the issue of context effects. He utilized a decision-making task consisting of a series of puzzles ranging in difficulty from very easy to very hard. Subjects selected one puzzle to work with the understanding that they would have one minute to complete

the puzzle. Three experimental conditions were employed: (1) a neutral condition involving no special instructions; (2) an extrinsic condition in which subjects were informed that they must work rapidly to avoid missing dinner; (3) a relaxed condition in which the experimenter casually informed subjects that the tasks were of an exploratory nature. Only in the relaxed condition did subjects high in motivation to achieve success exhibit a preference for tasks of intermediate difficulty. These results are consistent with findings which have been reported for tasks having the form of games of skill.

Another line of inquiry using the Atkinson model focuses upon the prediction of risk taking in the everyday world. In a doctoral dissertation, Wish (1970) investigated the applicability of Atkinson's model to the prediction of curricula selections of students at Boston College. One hundred forty-two male college juniors selected to represent each major offered by the school constituted the sample. The motive to achieve success was measured projectively, and the motive to avoid failure was assessed by the Debilitating Scale of the Alport-Haber Achievement Anxiety Test. In addition, subjects were given a Curricula Questionnaire designed to elicit the individual's probability of success for each major. The results of the study indicated that students did not choose majors of intermediate risk as the Atkinson model would predict. However, students motivated to avoid failure did select either very easy or very hard majors.

In an earlier study, Mahone (1960) examined vocational preferences of high school students as a function of achievement and failure-avoidant motivation. He found that subjects high in the motive to avoid failure generally tended to select occupations that were too easy or too

difficult in terms of their ability while high need achievers were more prone to choose occupations appropriate to their ability.

Locus of control is a second personality factor whose relationship to risk-taking behavior has been investigated. Rotter et al. (1962) have developed a forced-choice scale intended to appraise the extent to which an individual believes that people are active, causal agents in dealing with their environments (internal control) or passive recipients of environmental effects (external control).

Liverant and Scodel (1960) looked at the locus of control variable among 85 males enrolled in an introductory psychology course. They hypothesized that internally controlled subjects would select more high probability bets than would externally controlled subjects; in addition, they expected internally controlled subjects to be less variable in their choices of bets. Using the I-E scale and a gambling situation requiring subjects to bet on each of 30 tosses of a pair of dice, the following results were noted. Internally controlled subjects chose significantly more intermediate and significantly fewer low probability bets than did externally controlled subjects. The amount of money wagered on safe as compared to risky bets was significantly greater for internally controlled subjects, and these individuals were also less variable in their selection of alternatives.

Another study examining locus of control (Lefcourt and Ladwig, 1965) attempted to use this variable in interpreting black-white differences in level-of-aspiration and risk-taking behavior. Comparing Negro and white prison inmates, Lefcourt and Ladwig found less internal control in Negroes relative to white prisoners. They also noted that blacks evinced significantly more increases in aspiration level

following failure and decreases in aspiration level following success than did their white counterparts. According to the authors, this pattern of behavior is consistent with what might be expected from someone who believes that success and failure are not under one's own control, a situation likely to exist for the black person in today's society.

In addition to the body of studies investigating achievement motivation and locus of control, a number of more isolated attempts have been made to relate other personality variables to risk-taking behavior. Kogan and Wallach (1964) tried to find relationships between risk taking and impulsiveness, self-sufficiency, independence, and rigidity. However, no significant pattern of results was noted. Only for females did any trends appear. Independence appeared to be directly related to risk taking while rigidity was inversely related. The authors suggest that these results are significant in relation to the interpretation of sex differences. They predict that a better understanding of sex differences in risk taking may be attained by accounting for personality variables having implications for sex role identity.

A more recent study (O'Keefe, 1970) also examined the relationship between risk taking and impulsivity. Subjects were 20 boys from a training school for delinquents and 20 boys from an institution for neglected and dependent children. Subjects from each institution were categorized as high, low, or average in impulsiveness. Two games provided indices of risk-taking propensities. As in the Kogan and Wallach study, the data failed to indicate a relationship between risk taking and impulsivity.

A doctoral dissertation by Stein (1970) reported more positive results between risk taking and ego-control. Ninety-six male psychiatric patients were given the MMPI, a self-report risk-taking questionnaire, and a gambling task. It was predicted that there would be an inverse relationship between risk taking and ego-control, a curvilinear relationship between risk taking and ego-resiliency, and an interaction between ego-resiliency and ego-control with respect to risk taking. While little evidence was found to support the first and last hypotheses, the inverse relationship between ego-control and risk taking was confirmed.

Another doctoral study (Dugan, 1970) bearing indirectly upon classroom participation in terms of risk taking explored the role of social fears in risk taking. Eighteen female college students with strong fears in social, interpersonal situations and eighteen comparable individuals not possessing these fears were identified. Subjects were divided into three groups: a phobic group, a nonphobic group, and a mixed group. Each subject completed the Dilemmas-of-Choice questionnaire. Statistical analysis revealed that the three groups differed from each other on the amount of risk endorsed on the questionnaire items. As anticipated, the phobic group was more cautious than the nonphobic group in terms of questionnaire scores.

Classroom Interaction Patterns

Since the early 1950's, a number of researchers have been concerned with teacher-pupil interaction within the classroom. In general, the studies have focused upon various aspects of teacher effectiveness. Included under this rubric are a number of interrelated areas such as

teaching patterns, student achievement, classroom climate, teacher-student perceptions, teacher personality, and teacher education. The preponderance of this research has focused upon the teacher's role in relation to each of these variables.

To facilitate research on classroom behavior, a number of systems for categorizing and analyzing teacher-pupil interaction have been developed. Intellectual activity in the classroom has received the most attention although several systems have emphasized social-emotional behavior and others purport to be multidimensional. Perhaps one of the most widely-used systems has been that developed by Flanders (Amidon and Flanders, 1963). This system consists of a scheme for classifying teacher-pupil verbal behavior into three major categories; teacher talk, student talk, and silence or confusion used to handle behavior that cannot be incorporated into the other categories. Both teacher talk and student talk are further subdivided. Teacher verbal behavior consists of indirect and direct teacher influence both of which are again divided into smaller categories. Four observation categories comprise indirect influence: accepting feeling, praising or encouraging, accepting ideas, and asking questions. Direct influence consists of three categories: lecturing, giving directions, and criticizing or justifying authority. Only two categories are used to delineate student talk; these include responding to teacher initiated activity and initiating talk. Together there are ten mutally exclusive categories capable of including all verbal interaction occurring within the classroom.

To help impose some degree of organization upon a diffuse body of literature, Mitzel's distinction between presage, process, and product criteria (1960, p. 1482) will be utilized as far as possible. The

following distinctions can be made among these three variables. The presage variable is one that exists before the teaching process begins; thus, obtaining a measure of a teacher's personality traits would constitute a presage variable since these traits were already present. A corresponding process variable would be some behaviorally specified measure of the personality traits which were exhibited while teaching. Finally, the product variable would be an educational outcome such as pupil attitude related to teacher personality trait. These distinctions make it possible to view the majority of studies in terms of relationships between process and product, presage and process, and presage and product variables.

Research treating classroom climate falls within the domain of the process and presage relationship. The earliest systematic studies of spontaneous pupil-teacher behavior relating directly to classroom climate are those of Anderson and his colleagues (1939, 1945, 1946). These studies dealt with the influence of teachers' classroom behaviors upon their students' behavior. To conduct the study, 26 teacher-behavior categories and 29 children behavior categories analyzing teacher-pupil verbal and nonverbal behavior were developed. Two predominant types of behavior were identified, dominative and integrative. It was hypothesized that domination and integration are psychologically different modes of responding to others, and in addition, that these two modes would elicit differing responses. Using preschool children, Anderson et al. produced a series of consistent findings relating to these hypotheses. It was noted that the dominative or integrative behavior of the teacher produced a pattern of behavior that spread throughout the classroom; thus, if either type of behavior

constituted the teacher's predominate mode of interaction, that mode also became prevalent for the students. In addition, when a teacher's integrative contacts increased, pupils showed an increase in spontaneity and initiative, voluntary social contributions, and acts of problem-solving. On the other hand, when a teacher's dominative contacts increased, students were more easily distracted from schoolwork and showed greater aggressive and non-cooperative behavior.

Various other studies have produced results supportive of those found by Anderson. Several have dealt with the same dimension. Withall (1949) demonstrated that classification of the teacher's verbal behavior into seven categories produced an index of teacher behavior quite similar to the integrative-dominative dimension of Anderson. Likewise, Flanders (1951) has also investigated the dominative-integrative dichotomy. In laboratory settings, he presented contrasting patterns of teacher behavior to one student at a time. He noted that a sustained dominative pattern was consistently disliked by pupils, reduced their ability to recall the material studied, and produced disruptive anxiety as indicated by GSR and heartbeat rates. At the same time, these trends were reversed for students exposed to teachers utilizing more integrative techniques.

In another series of studies, Flanders (1959) attempted to relate pupil attitudes as measured by a climate index to teacher influence patterns (direct or indirect) as identified by trained observers using his system of interaction analysis. The sample consisted of 240 teacher-classroom units in elementary and junior high schools in New Zealand and Minnesota. He found that a positive social-emotional climate tended to be associated with indirect teacher influence. One

category used to assess indirect influence was the teacher's use of ideas previously expressed by pupils. Johns (1966) studied six high school English teachers near Detroit and provided confirmation of Flanders' work. In addition, he found that pupils exposed to teachers who made more use of their ideas and opinions not only had more positive attitudes but were also more likely to ask thought-provoking questions during class discussions.

Another manner of investigating this relationship was provided by Cogan (1963). He administered a questionnaire to 987 junior high students in 33 classes. Three scores were obtained from the questionnaire: one score for pupils' perception that their ideas were central to decisions and action taken in the classroom, another that indicated how much of the regularly assigned work was completed, and a third score that indicated how much extra work was completed. Positive correlations discovered between the first score and the other two led Cogan to conclude that his data supported earlier results which had been attained through systematic classroom observation.

Research linking presage to process compares some aspect of the teaching process with a pre-existing entity. Two general areas will be considered: studies involving teacher traits and studies concerned with teacher training.

Numerous attempts have been made to ascertain what relationships might exist between teacher personality and teaching behavior or patterns that influence teacher-pupil interactions. Several investigators have looked at teacher's self perceptions in relation to their classroom behavior. Ringness et al. (1964) compared measures of self-concept as

teachers, measure of security, and measures of anxiety for 27 first-year teachers with patterns of teaching determined through use of Flanders' observation categories. Although there were significant relationships among the self-perception scores, the measures were not significantly associated with observed behavior while teaching.

Bowers and Soar (1961) attempted to relate patterns of teacher personality as measured by the MMPI to patterns of observed teacher behavior which were determined through use of the Observation Schedule and Record (OScAR). They found the highest correlations between the Pd, Sc, and Hy scales of the MMPI and the OScAR dimensions of emotional climate, verbal emphasis, and social structure. From these findings, the authors concluded that teachers who lacked maturity, depth of affect, and ability to feel personal loyalties (high Pd) and were constrained, cold, remote, and inaccessible (high Sc) were less likely to have supportive emotional climates and extensive pupil-pupil interaction in their classrooms.

Smith (1965) approached the presage-process relationship in a somewhat different manner. Studying seven white female teachers over 12 years of age with middle-class backgrounds, he noted their interactions with 40 white males in the sixth grade. His results indicated significant correlations between positive and encouraging teacher statements and high-status occupations that the teacher anticipated the pupils would attain. Simultaneously, he found negative statements and anticipation of low-status occupations for other students to be highly correlated.

Turning to the area of teacher training, there are a number of representative studies relating to the presage-process issue also.

Recently, numerous studies have been concerned with the effects of feedback upon teacher behavior. Gage (1963) developed a questionnaire to be completed by pupils on which they rated their present teacher and indicated their conception of the ideal teacher. Once a month for a portion of one school year, 86 sixth-grade teachers were given the reactions of their pupils on the questionnaire. While these individuals received feedback, 90 other teachers did not, even though the attitude inventories were administered. During the course of the study, students perceived a shift toward their ideal type of teacher on 10 of 12 scales; compared to the control group four of these shifts were statistically significant.

In a study in which 20 pre-service teachers were taught the Flanders system of interaction analysis and 20 pre-service teachers in a control group took a traditional student teaching seminar, Hough and Amidon (1964) found that student teachers in the experimental course were given significantly higher ratings by their supervisors. They also made more positive responses on a teaching-attitudes test and found the course more challenging than did students in conventional sections.

A doctoral dissertation by Allred (1966) which examined personality traits and classroom verbal behavior of student teachers reports a number of significant relationships in terms of pupil verbal participation. Allred utilized high school social studies student teachers. These individuals were given the California Personality Inventory and were also rated by the Flanders Interaction Analysis system. A series of conclusions indicating the degree of freedom or restriction allowed students in verbal participation was listed. For example, it was noted that males scoring high on the CPI scales of Well-being, Responsibility,

Good impression, and Socialization tended to be more restrictive of pupil verbal participation than did low scorers.

The final area of research on teacher effectiveness to be considered is that which compares some teacher characteristic such as a personality trait to an outcome variable such as student achievement. The search for personality variables which might be related to teaching effectiveness has spawned a plethora of research studies. Many of these are closely related to the research already cited under the rubric of presage-process relationships.

Flanagan (1961) compared MMPI scores of 147 female teachers with ratings made in four categories of teaching effectiveness by supervisors. A high score on the Hy scale was positively related to supervisor ratings of effectiveness. Burkhard (1962) administered Thematic Apperception Tests (TAT) to 300 teachers in a parochial school system encompassing grades four through six. A total of 10,720 pupils completed ratings of their teachers on various dimensions including "liking for the teacher" and "ability to explain". Teachers who were ranked high appeared to be more active, to recognize their own limitations, to be more objective, and to have higher scores on similar values.

In a study of 12 intellectually superior classes, Gallagher and Aschner (1963) attempted to relate the type of teacher questions to the production of divergent thinking in students. Five consecutive classroom sessions were taped. Using categories she had devised for thinking, Aschner found that generally when the percentage of divergent questions from the teacher was high, the percentage of divergent thinking exhibited by students was also high. Conversely, when the

percentage of divergent questions was low, divergent thinking produced by the students also tended to be low.

Another study concerned with the product of teacher-pupil interaction was conducted by Murphy (1969). This study attempted to ascertain what type of teacher personality might be most conducive to the development of independence in students. Three scales of the OPI measuring simplicity-complexity in thinking were administered to 254 home economics education faculty, supervising teachers, and student teachers at two midwestern universities. An adaptation of Flanders Scale of Dependence Proneness measured teacher preference for dependence-independence in students. Test scores indicated that individuals characterized by complexity in thinking preferred independence in students while those characterized by thinking simplicity preferred dependence in students.

Reconsideration of the above studies which have explored various aspects of teacher-student interaction reveals a number of common features. First, as has been pointed out previously, the majority of studies on this topic have been concerned with teacher effectiveness. For this reason, the major emphasis has been upon the teacher as the primary determinant of the interaction patterns. A second feature common to most of these studies is the fact that they have been conducted in elementary, junior high, and senior high schools. Little attention has been focused upon the nature of the interaction process in the college classroom. Nevertheless, there are a limited number of studies which have centered their inquiry around the student. In addition, some attention has been given b interaction within the college classroom. Several of these studies will be considered now.

Wispe (1951) and Smith (1955) have shown that when college students are classified into different psychological types, each type has a different reaction to the same patterns of teacher influence. In his study, Wispe had eight sections of an elementary social science course taught for one semester by graduate teaching assistants who had been selected and trained in one of two teaching styles. Four sections were taught in a directive, highly-structured, and subject-matter centered method while the remaining four were permissive, unstructured, and student-centered. At the end of the semester, students completed a Sentence Completion Test, a TAT-type test, and a questionnaire dealing with attitudes and feelings related to college in general and the section in particular. It was found that three student types could be distinguished on the basis of questionnaire responses. The first type manifested a perpetual desire for more direction in sections and seemed to be personally insecure, dependent, and intro-punitive. A second student type was characterized by his unconditional satisfaction with the teaching method to which he was exposed. A third group of students indicated a desire for more permissiveness in the classroom. These individuals were more independent, less tense, and extra-punitive. Reactions to the two methods of teaching varied for the three types of students. Wispe notes that these results indicate the importance of taking into consideration the emotional-intellectual needs of the student to ensure maximum learning efficiency.

Smith's study (1955) was concerned with the personality traits of students with reading problems. In searching for methods of alleviating certain reading disabilities, he noted that "fast" and "slow improvers" could be characterized differentially. "Fast improvers" were found to

be sociable, flexible, warm, and imaginative individuals with few anxieties. On the other hand, "slow improvers" were withdrawn, rigid, suspicious, and overly conscientious with numerous anxieties. Using a number of different teaching methods, Smith was able to show that specific strategies were maximally beneficial for the two groups.

More recent work of this nature has been done by Amidon and Flanders (1961). Using Flanders system for classifying interaction, 54 eighth-grade classes were taught geometry in a two-hour period by a teacher using one of two contrasting styles. In one treatment, the ideas and opinions expressed by students were acknowledged and incorporated into the classroom discourse (indirect influence). The other treatment minimized this type of interaction and relied primarily upon lecture and other forms of direct influence. The authors indicated that only those students identified as dependent by their scores on the Flanders Dependence-Proneness Scale learned more geometry from teachers using the indirect style.

The studies which consider interaction within a college setting are more limited. In a doctoral dissertation, Rubin (1970) investigated the relationship between student participation in college classrooms, achievement, and student personalities. Two classes of undergraduates were observed with all verbalizations being recorded and classified. In terms of particular findings, the study was disappointing. Past academic achievement, self-esteem, locus of control, and achievement in the course were not significantly related to student classroom participation. It was noted, however, that different types of student responses were highly correlated. Thus, students who asked questions also answered questions and made other comments. Substantiating earlier

findings in public schools, it was noted that most student comments were responses to teacher questions and that students rarely admitted confusion or requested clarification.

Another doctoral study conducted by Bergland (1970) investigated students' nonassertiveness in discussion classes. The study was primarily concerned with various desensitization modes that might be effective in promoting increased class discussion. In general, subjects admitted high levels of anxiety in discussion class settings and concomitantly low frequency of class participation. Analysis of the data yielded few significant relationships between measures of anxiety and measures of participation.

The Omnibus Personality Inventory

The Omnibus Personality Inventory (OPI) is a paper and pencil test designed to assess college relevant personality characteristics. The 385 items which constitute the test measure 14 scales selected for their particular applicability to academic activity and for their general importance in differentiating among students in an educational context. For this reason, the test is primarily concerned with areas tapping normal ego-functioning. Included under this rubric are social-emotional maturity, social concern, success and confidence in social relations, and the maxculinity-feminity syndrome. These general areas of intellectual orientation and adjustment are not limited to measurement by a single dimension; rather, several of the scales may contribute to the assessment of the particular characteristic in concern.

After a subject has read each item and marked it true or false as it applies to him, a score for each scale is obtained by totaling the

number of items answered for that scale. The score obtained is then converted to a standard score and entered on a profile sheet displaying standard scores for the remaining scales. The point at which any score may be defined as a high or low score is relative. However, normative tables comprised of data from entering students at diverse institutions are available for comparison. In general, the authors note that standard scores of 60 or above can be interpreted as sufficiently high for the essence of the respective scale definition to apply and that persons with scores falling above a standard score of 70 can be represented as very appropriately characterized by the definition. Interpretation of the entire profile provides the most valuable understanding of an individual since the interaction and patterning of various factors can be noted. For research purposes, however, the authors suggest that single scales or groups of scales can be utilized efficaciously. In the present instance, the scales to be used include Complexity, Autonomy, Social Extroversion, and Anxiety Level. Since extensive reliability and validity data for the scales are reported in the manual (Heist and Yonge, 1968), this material will not be replicated here.

Considering the recent development of the OPI, a relatively extensive body of experimental literature has been amassed. The majority of this work has been conducted in an academic setting with particular emphasis upon the discovery of personality characteristics which differentiate various types of college students. An early study by Warren and Heist (1960) examined the personality attributes of gifted college students. A sample of approximately 900 National Merit Scholars was compared with a random group of freshmen students. Gifted students scored higher on Thinking Introversion and lower on Impulse Expression

and Social Introversion than did the comparison group. On the basis of the OPI results and certain scores on the Allport-Vernon-Lindzey study of Values, the authors concluded that the gifted student can be differentiated by a strong disposition toward intellectual activity.

In a similar study, Capretta et al. (1963) looked at personality differences which distinguished successful from unsuccessful honors program students and from those individuals who declined honors program invitations but were successful in their non-honors work. The Complexity scale provided the most lucid delineation among the three groups.

Continuing the examination of exceptional students, Dugger in a doctoral dissertation (1969) attempted to determine if significant differences between elected leaders and non-leaders existed as measured by the OPI. A group of freshmen women living in university residence halls constituted the study's sample. The results indicated that the Autonomy and Social Extroversion scales provided excellent discrimination between these individuals.

Turning from the consideration of students exhibiting special abilities, a number of studies performed at the University of Kentucky have investigated a more diverse sample of individuals. Elton and Rose (1968) examined personality variables for males who do and do not write letters to the editor of the college newspaper. Using factors they had extracted from the OPI scales, these authors discovered that letter-writers had markedly higher scores on the variables of Tolerance and Autonomy, Suppression-Repression, and Scholarly Orientation.

Another study by Elton and Rose (1966) investigated the hypothesis that freshmen whose behavior constituted an infraction of accepted dormitory rules would exhibit less impulse control than those students who

lived harmoniously with others. In general, the authors noted that the students who had no disciplinary problems exhibited flatter, more average profiles than did their delinquent counterparts. They further noted the presence of an intellective-personality dimension which effectively separated the reprimanded from the non-reprimanded students; lower scores on the Impulse Expression scale contributed significantly to this factor.

Still another aspect of academic life which has been explored by Elton and Rose (1968) concerns factors relevant to acceptance or rejection of counseling. Two samples of male probationary students were invited to participate in group counseling. Analysis of their personality test scores revealed significant differences between acceptors and rejectors with rejectors more nonconforming in one sample and acceptors more nonconforming in the other. Since the letters of invitation for the two samples were entirely different, the authors speculate that this factor may be implicated in the discrepant findings.

Another area in which the OPI has been used is in studying personality factors related to persistence or withdrawal among university students (Rossman and Kirk, 1970). Students were categorized as persistors, voluntary withdrawals, or failures based upon first year cumulative GPA and whether or not they returned to school the following fall semester. Based on their scores on the OPI, withdrawals were characterized as more likely to enjoy reflective or abstract thinking, as more interested in artistic activities, as being more tolerant of ambiguities and uncertainties, as more ready to express their impulses and to seek gratification in conscious thought or action, as less interested in a pragmatic approach to life, and as more intellectually oriented.

Walton (1969) utilized the OPI scales in a somewhat different manner. His study dealt with personality dimensions associated with psychiatric career attitudes of fifth-year medical students. Four aspects of personality found to be relevant in previous investigations were selected; these included extraversion, neuroticism, complexity, and thinking introversion. The latter two variables, both measured by OPI scales, proved to be the most important of the personality dimensions tested in discerning the medical students' psychiatric career attitudes. High scorers on the Thinking Introversion and Complexity scales were the individuals who most frequently considered psychological factors contributing to illness. On the other hand, individuals scoring low on Thinking Introversion and Complexity were more interested in the causal relationship between organic factors and disease.

Summary

The portions of this literature review which have assayed individual differences in risk-taking propensities and classroom interaction patterns have attempted to illustrate the major emphasis of investigation within these areas. As demonstrated by the studies cited above, no direct attempt has been made to discern what relationships, if any, might exist between the two areas of research. Several of the investigations cited indicate the possibility that an extension of the risk-taking concept might be made to encompass student verbal behavior in the classroom. By viewing classroom participation as a form of risk-taking behavior, the student is made the point of focus in the analysis. Another means of attain the same end is the exploration of personality variables of students who do and do not participate in class discussions.

The research utilizing the OPI which has been cited indicates its practicability in distinguishing various groups of college students on the basis of personality characteristics. However, no attempt to correlate classroom verbal activity and personality correlates has been made.

The present study represents an attempt to integrate these three lines of investigation with particular concern for determining ways of making the student central to the classroom interaction process.

CHAPTER IV

METHOD

Subjects

Ss for this study were 90 freshmen and sophomore students, age 18 to 25, enrolled in introductory mathematics courses at Southwestern Oklahoma State College and introductory psychology courses at Southeastern Oklahoma State College; an equal percentage of Ss was attained from each institution. In addition, equal numbers of males and females were used. Although the materials utilized were administered in the classroom, Ss did have the opportunity not to participate if they so desired. Three groups of Ss were identified according to their responses on a self-report scale assessing degree of inhibition experienced in regard to initiating verbal interaction in the classroom.

Materials

The self-report questionnaire (see Appendix A) utilized is a five-point scale intended to measure degree of inhibition Ss experience in relation to initiating verbal interaction in the classroom. Ss rated themselves on a continuum ranging from 1 to 5. A rating of 1 indicated feelings of extreme inhibition about asking questions and participating in class while a rating of 5 signified that S felt very uninhibited about initiating verbal interaction within the classroom.

To assess risk-taking propensities, a 12-item Dilemmas-of-Choice questionnaire was used. Each item of the test represents a choice between a risky and a safe course of action. Five selections reflecting the probability levels for each alternative's success that would make it sufficiently attractive to be chosen are presented. The probability level selected represents the deterrence for failure operable for S in a particular decision area. The instrument is of a semi-projective nature. S is asked how he would advise others in the situation described. The assumption is made that an individual's advice to others reflects his own regard for the desirability of success relative to the disutility of failure. To arrive at a score for each S on this instrument, the probability levels presented (9, 7, 5, 3, 1, and 0) are used. Mean scores are obtained by taking the probability levels selected by S for each item and averaging the total.

From the OPI, four scales were administered to explore the role of personality variables; these included Co, Au, SE, and AL. These four scales were considered relevant because of the scale descriptions and the descriptions of high scorers based on the most frequently-occurring responses.

The Co scale purportedly reflects an experimental and flexible orientation as opposed to a fixed manner of viewing and organizing phenomena. High scorers are said to be tolerant of ambiguities and uncertainties and have been found to enjoy novel situations and ideas. The Co scale is composed of 32 items. The following one is exemplary of those comprising this scale: "I want to know that something will really work before I am willing to take a chance on it," (F).

The Au scale is intended to measure liberal, nonauthoritarian thinking and a need for independence. High scorers tend to be independent of authority and are described as tolerant of others' opinions. Forty-three items comprise the Au scale. One item from the scale states: "More than anything else, it is good hard work that makes life worthwhile," (F).

Scores on the SE scale reflect preferred style of relating to people in a social context. While the social extrovert gains satisfaction from social activities, low scorers on this scale tend to withdraw from social contacts and responsibilities. The SE scale consists of 40 items. The following item exemplifies those composing this scale: "If I encounter a person whom I have met previously, I begin a conversation with him," (T).

The final scale, AL, attempts to assess a general mode of responding to the social environment. Low scorers describe themselves as tense and high-strung while high scorers do not admit having feelings of anxiety. Low scorers are described as being more sensitive than most people. This scale contains 20 items. The following item is representative of those which constitute the scale: "I am not unusually self-conscious," (T).

Raw scores on the OPI scales are converted to standard scores with a mean of 50 and a standard deviation of 10. Scores are determined separately for each scale.

Procedure

All of the materials described in the preceding section were administered in a group setting. The three instruments were presented in

alternate orders for different Ss. Thus, one S began with the self-report while another first completed the OPI scales and another the Choice-Dilemmas task. After the data had been collected, Ss were divided into three groups on the basis of their self-report scores. Ss giving themselves ratings of 1 and 2 constituted a group that can be described as low frequency interactors. These individuals expressed the most extreme feelings of inhibition in terms of initiating classroom participation. At the other extreme, a group defined by scores of 4 and 5 was collected. Ss in this group can be characterized as high frequency interactors displaying little or no restraint in initiating classroom participation. A third group of Ss was defined by a rating of 3. This group was comprised of Ss who are moderate interactors but who usually allow others to take the responsibility for initiating activity.

To determine the feasibility of using the self-report for measuring Ss' feelings of inhibition about initiating participation in the classroom, a pilot study was first conducted. Ss were asked to rate themselves on the scale. In addition, each class member also rated every other S. Individual ratings were compared to the class average for that person. Also the instructor was asked to rate the students, and comparisons were made between these measures. Analysis of the data indicated 42% agreement in assignment to one of the three groups between all three ratings. Sixty-six percent agreement was achieved between any two of the ratings, for example, between self evaluation and class average or between self evaluation and instructor rating. It was felt that this degree of concordance among the ratings was sufficient to justify using this measure to identify the three groups. In fact, since ratings only one step apart (for example, scores of 2 and 3 for the same individual)

were considered as disagreements since placement in two different groups was involved, this percentage of agreement was actually exceptionally high.

To facilitate the analysis of the data, equal cell sizes were maintained. In order to achieve equality within the cells, two Ss were randomly discarded. Additional elimination occurred when Ss over 25 years of age were not included. Seven females and five males were discarded for this reason. Two additional males were lost because they failed to follow instructions.

CHAPTER V

DESIGN

The general design for this study was a 2 x 3 analysis of variance (sex by degree of inhibition in initiating and participating in classroom discussion). The factors under study were males and females in the high, medium, and low groups as defined by the self-report administered and the five additional scales which were used. These included the Dilemmas-of-Choice questionnaire measuring risk-taking propensities and four scales from the OPI assessing anxiety level, complexity of thinking, autonomy, and social extroversion. Five separate analyses were carried out. The respective error terms from the analyses served as the denominators for the calculation of F ratios. Where significance was indicated, the Newman-Keuls procedure was utilized to detect differences between the means of the high, medium, and low groups on the scales administered.

CHAPTER VI

RESULTS

Mean scores for male and female Ss in the high, average, and low inhibition groups are given in Appendix B. As seen in Table I, results of the analysis of variance indicated significant differences between the high, average, and low inhibition groups on the Co ($p < .05$) and SE ($p < .01$) variables ($F = 3.49$, $df = 2/84$, $p < .05$ and $F = 23.57$, $df = 2/84$, $p < .01$, respectively). Pairwise comparisons using the Newman-Keuls procedure revealed that low inhibition Ss obtained significantly higher scores ($p < .05$) than did medium and high inhibition Ss on the Co scale (see Figure 1). Differences between the high and medium groups were found not to be significant although they were in a direction congruent with the preceding results.

For the SE scale, the Newman-Keuls procedure revealed significant differences ($p < .01$) on all three pairwise comparisons. Thus, scores on the SE scale were able to differentiate between the high and low, the high and medium, and the medium and low inhibition groups. As shown in Figure 2, the highest scores on the SE scale were obtained by Ss in the low inhibition group, lowest scores were obtained by Ss in the high inhibition group, and intermediate scores were obtained by Ss in the average inhibition group.

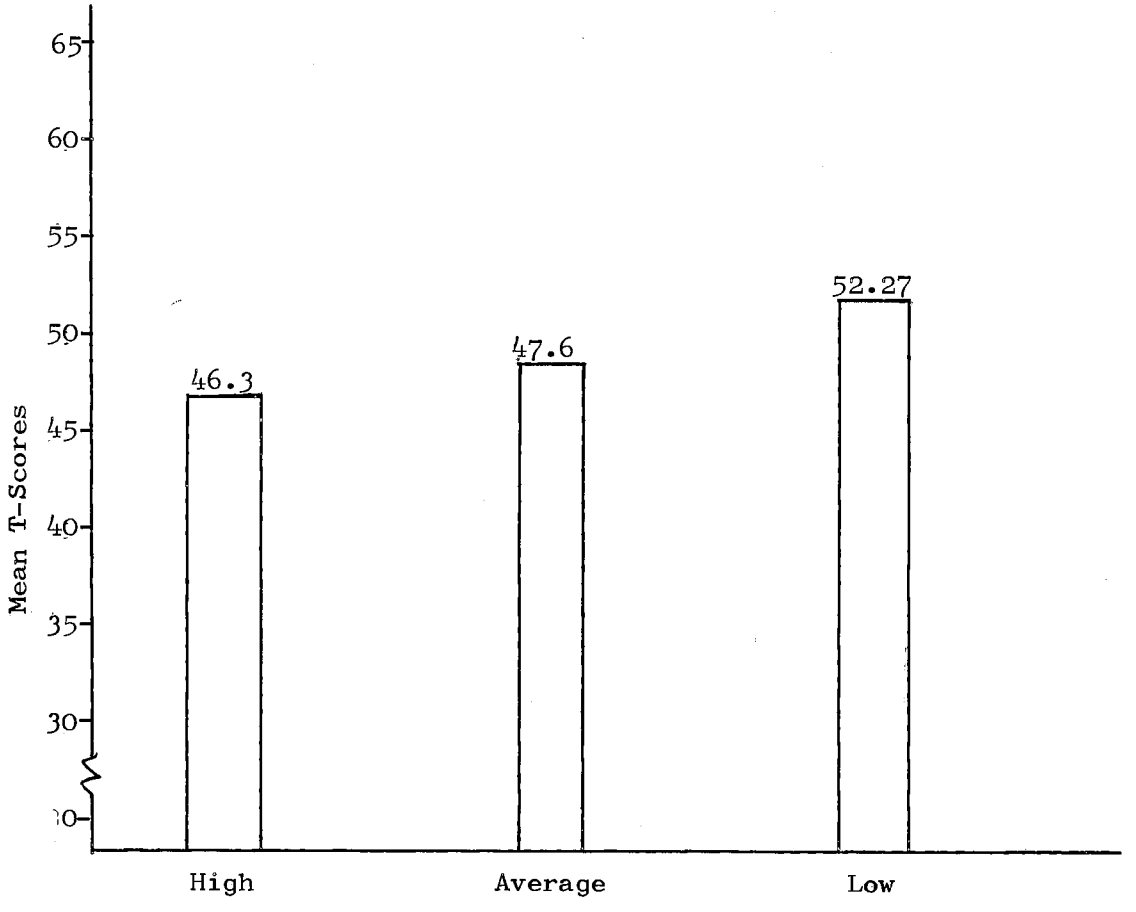

Figure 1. Complexity Mean Scores for Subjects in the High, Average, and Low Inhibition Groups

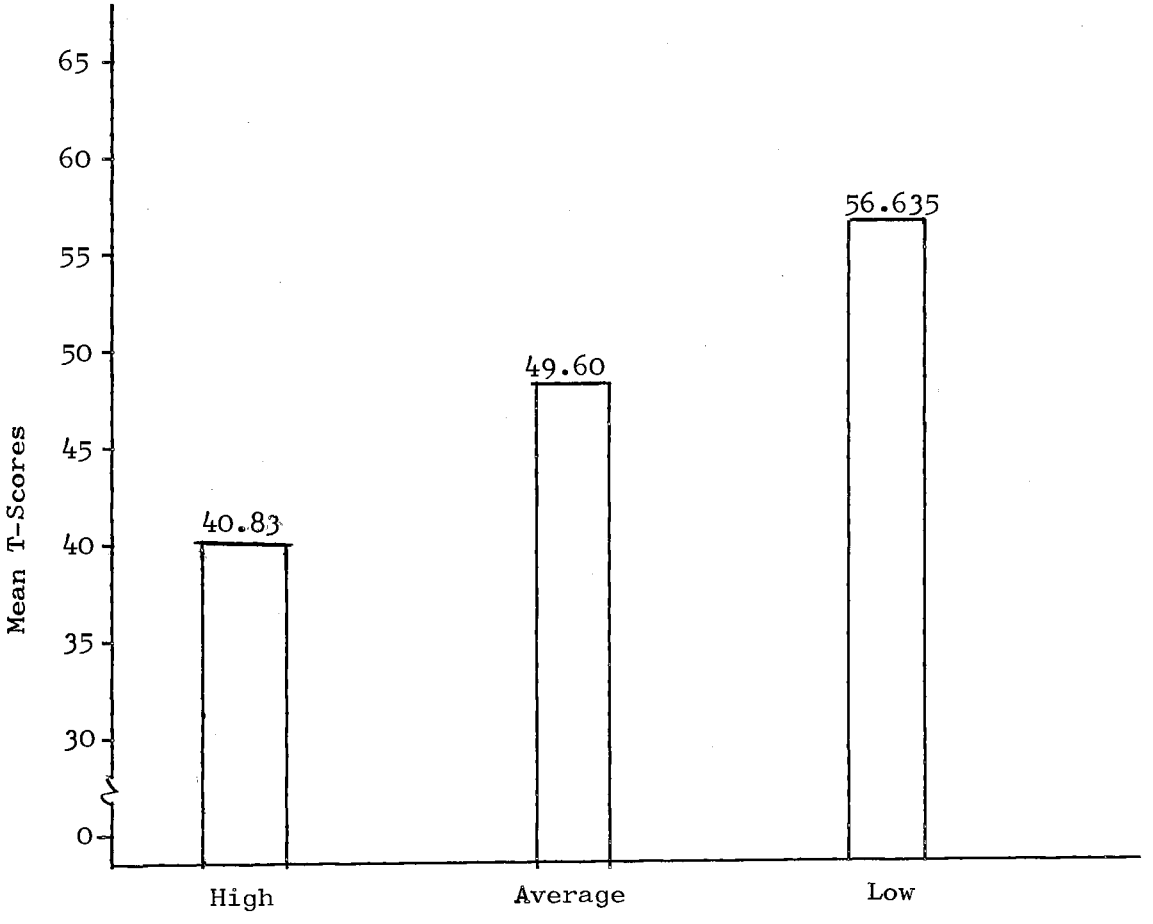

Figure 2. Social Extroversion Mean Scores for Subjects in the High, Average, and Low Inhibition Groups

CHAPTER VII

DISCUSSION

The findings noted in the preceding chapter indicate the feasibility of attempting to identify characteristics of individuals who feel varying degrees of inhibition in regard to their classroom participation. Unlike earlier studies, several variables evinced the capacity to differentiate among individuals who admitted to experiencing high, average, and low amounts of inhibition in classroom discussions. The most striking finding was noted in the case of the SE scale of the OPI; this scale provided a rather clearcut criterion for differentiating between the groups. Mean scores on the SE scale tended to be lower for individuals who expressed a high degree of inhibition in class participation than for individuals who judged themselves as experiencing an average amount of inhibition. In turn, the latter group of individuals tended to score lower on the SE scale than did those students who professed having few inhibitions about participating in classroom discussion.

This finding suggests that those Ss who say that they experience feelings of inhibition in a classroom mileu are also more generally disposed toward withdrawal from social contacts and responsibilities in other situations. Ss in this group would appear to be those persons who limit all verbal interaction to that which is essential for very specific purposes. For example, just as this individual would not be inclined to speak in class very readily, neither would he initiate nor

perpetuate a conversation with other individuals whose contacts with him are transient in nature. If his verbal interactions in the classroom might be described as terse, so might his everyday transactions with individuals whom he does not know well.

On the other hand, those Ss who report that they feel only a small degree of reluctance to initiate and participate in classroom discussions tend to score higher on the SE scale indicating a general proclivity for gaining satisfaction from social interactions and from the assumption of responsibility in social activities. These individuals represent the opposite extreme in terms of the individual already described.

The other dimension which yielded significant results was the Co scale from the OPI. In the group defined as highly inhibited, Ss generally scored lower on the scale than did Ss in the medium and low groups. These differences were significant for the high and low as well as for the medium and low groups. Although the difference between the medium and high groups was not significant, it was in the same direction. Considering the scale description, the implications of these findings are that the individual who feels little inhibition about classroom participation is tolerant of ambiguities and uncertainties. In addition, this individual tends to enjoy novel situations and ideas. On the other hand, the low scores of the highly inhibited individual indicate a more fixed manner of viewing and organizing phenomena. Thus, the highly inhibited individual's failure to initiate or participate in classroom discussions may be at least partially attributable to his inability to deal with novel or unpredictable situations. The fact that he cannot predict the instructor's nor his classmates' reactions to what

he says may be one factor which induces him not to express his own viewpoints in the classroom. On the other hand, the individual scoring higher on this scale is able to deal with unpredictable situations and may, in fact, seek them out.

Another point that might be considered is that for an individual who possesses a more flexible manner of organizing information, questioning might seem natural while a more rigid individual might find it difficult to assimilate input which is less structured, as it might be after having been challenged and discussed.

Failure to obtain significant results on the remaining scales from the OPI and on the Dilemmas-of-Choice questionnaire can probably be attributed to a number of factors. Since the study is of an exploratory nature, it is not disconcerting to note that all the measures utilized did not reach the level of significance. Rather, the fact that several factors were significant indicates the feasibility of further exploring the characteristics of individuals who feel either more or less inhibited in classroom interaction. As a perusal of relevant literature has evidenced, little research has been directed toward this end in the past. The differences obtained by Ss of the three groups on the SE and Co scales suggest that it may be profitable to explore additional personality attributes in the relationship. For example, all 14 scales of the OPI might be administered, or other personality inventories might be used.

In addition, further work might be done to ascertain what may have contributed to the lack of significance on the other variables used in this study. In particular, additional attempts to identify a risk-taking variable connected with classroom interaction patterns might be

made. The failure to discover any significant relationships in this study may have occurred for a number of reasons. The nature of the risk-taking instrument itself presents one possible explanation. The situations included in the instrument represent a fairly diverse set of circumstances. Therefore, their relationship to a single situation may be inappropriate, especially in view of the earlier work done by Kogan and Wallach (1964). They found that only certain individuals exhibited generality across situations in their risk-taking behavior. In their study, only high defensive males and high test-anxious females generally responded in the same manner in different situations. Since these dimensions represent personality variables, the possibility of discovering personality characteristics influencing classroom interaction also seems germane to possible risk-taking proclivities. This study represents one attempt to identify some of these variables. Further work may be able to discover and elucidate additional relationships.

Another factor which may be significant relates to the reliability coefficients whih have been determined for this instrument (Kogan and Wallach, 1961). These coefficients increase for older individuals suggesting that the degree of disutility of failure becomes less situational and more generalized as a person grows older. Since the Ss in the present study were relatively young and since the selections presented in the Choice-Dilemmas instrument do represent diverse situations, some risk-taking propensities may have been masked. Thus, other means of discerning risk-taking variables appear to be needed.

The discovery of student characteristics important to classroom interaction patterns should prove beneficial for pedagogic reasons. First, as noted earlier in this study, such an approach places emphasis

upon the student in the classroom. The importance of this emphasis has been discussed in terms of John Dewey's notion that the individual learns what he does and its modern extension by Postman and Weingartner that the individual only learns to question by doing so. These are conditions which might answer many of the demands presently being made for relevance in education.

In addition, this approach might provide valuable information to be used in conjunction with earlier work on classroom interaction patterns which has focused upon the teacher's role in such transactions. Flanders (1961) has already shown that some interaction between the attributes of students and teachers appears to exist. Additional studies of this nature may elucidate the nature of both student and teacher characteristics as well as their interactions. Such knowledge could be responsible for significant innovations in the teaching process.

CHAPTER VIII

SUMMARY

The present study utilized ninety male and female college freshmen and sophomores to explore the characteristics of individuals who classified themselves as possessing high, average, or low inhibition in regard to classroom interaction. Ss in each of the three groups were given four scales from the OPI in addition to a questionnaire measuring risk-taking propensities.

It was found that Ss in the three groups could be distinguished by their scores on several of the variables studied. The SE dimension provided the most pronounced differentiation. In all groups, the scores on the SE scale differentiated between high and low, between high and medium, and between medium and low groups. In all instances, the relationship was such that higher scores on the SE scale indicated individuals professing to experience fewer feelings of inhibition and concomitantly to exhibit more verbal interaction within the classroom.

The second variable which was able to differentiate among the three groups was the Co scale of the OPI. Significant differences were found for Ss in the high and low and in the medium and low groups with individuals having higher scores on the scales manifesting less inhibition.

These results were discussed in terms of the scale descriptions

and definitions. In addition, implications for further research and utilization of the results were mentioned.

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APPENDIX A

SELF-REPORT QUESTIONNAIRE

APPENDIX A

INSTRUCTIONS.

I would like you to rate yourself on a scale from 1 to 5 on the degree of inhibition you experience concerning class discussion. That is, if you feel very inhibited about asking questions and giving your opinions in class, and virtually never say anything in class, give yourself a rating of 1. On the other hand, if you have no reservations about asking questions and giving your opinions, and if you very frequently speak out in class, give yourself a rating of 5. If you fall somewhere between 1 and 5, rate yourself according to the scale given below.

1	2	3	4	5
very inhibited	inhibited	average	uninhibited	very uninhibited

NAME

AGE SEX

APPENDIX B

PRESENTATION OF DATA

APPENDIX B

TABLE I

MEAN SCORES FOR MALES AND FEMALES IN THE HIGH, AVERAGE, AND LOW INHIBITION GROUPS

		HIGH	AVERAGE	LOW
Dilemmas of Choice	Males	5.70	5.85	5.58
	Females	6.00	6.01	6.05
	Group Means	5.85	5.93	5.82
Complexity	Males	46.60	47.53	54.85
	Females	46.00	47.67	49.67
	Group Means	46.30	47.60	52.27
Social Extroversion	Males	37.53	47.40	57.87
	Females	44.13	51.80	55.40
	Group Means	40.83	49.60	56.64
Autonomy	Males	47.20	50.07	52.73
	Females	46.60	47.53	50.87
	Group Means	46.90	48.80	51.80
Anxiety Level	Males	48.20	54.80	51.00
	Females	50.80	45.40	51.60
	Group Means	49.50	50.10	51.30

TABLE II

ANALYSIS OF VARIANCE SUMMARY TABLES

	Source	df	MS	F
Dilemmas-of-Choice	Sex	1	2.1561	2.2801
	Degree of Inhibition	2	.1011	.1069
	Sex x degree of inhibition	2	.1678	.1774
	Error	84	.9456	
Complexity	Sex	1	80.2778	.9482
	Degree of Inhibition	2	295.3444	3.4884*
	Sex x degree of inhibition	2	62.6778	.7403
	Error	84	84.6635	
Social Extroversion	Sex	1	182.0445	2.2828
	Degree of Inhibition	2	1879.8112	23.5721**
	Sex x degree of inhibition	2	167.7444	2.1034
	Error	84	79.7476	
Autonomy	Sex	1	62.5000	.9990
	Degree of Inhibition	2	183.1000	2.9266
	Sex x degree of inhibition	2	7.2333	.1156
	Error	84	62.5635	
Anxiety Level	Sex	1	96.1000	1.1174
	Degree of Inhibition	2	25.2000	.2930
	Sex x degree of inhibition	2	310.0000	3.6044
	Error	84	86.0048	

* $p < .05$

** $p < .01$

VITA

Cheryl Ann Kilpatrick

Candidate for the Degree of

Master of Science

Thesis: AN EXPLORATORY STUDY OF THE RELATIONSHIPS BETWEEN PERSONALITY AND RISK-TAKING VARIABLES AND CLASSROOM INTERACTION PATTERNS

Major Field: Psychology

Biographical:

Personal Data: Born in Norman, Oklahoma, February 14, 1947.

Education: Graduated from Durant High School, Durant, Oklahoma, May, 1965; attended Southeastern State College, Durant, Oklahoma, receiving a Bachelor of Arts degree with a major in Psychology, May, 1969; completed requirements for the Master of Science degree at Oklahoma State University, May, 1973.

Professional Experiences: Graduate Teaching Assistant, September, 1969-May, 1970; National Institute of Mental Health clinical trainee, September, 1970-August, 1972; Practicum, University of Oklahoma Medical Center, Department of Psychiatry, June, 1970-July, 1970; Oklahoma State University Counseling Center, September, 1971-December, 1971; Payne County Guidance Center, January, 1972-August, 1972; Staff Psychologist, Muskogee Guidance Center, September, 1972-present.