CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

TEACHER PERCEPTION OF

STUDENT INTRINSIC MOTIVATION AND ACHIEVEMENT

IN EARLY DROP-OUT

PREVENTION STRATEGIES

A thesis submitted in partial satisfaction of the
requirements for the degree of Master of Arts in

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Education

by

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ABSTRACT

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The number of students who fail to complete their High
School education is steadily on the rise; this poses a
concern for educators and school administrators. Recent
studies indicate that a variety of drop-out strategies have
been developed to minimize this impact on our educational
system. Throughout most early intervention strategies, the
use of teacher perception as an initial indicator of a
students' potential high-risk attributes has been employed.
This study found that the use of the Children's Academic
Intrinsic Motivation Inventory (CAIMI), in conjunction with
teachers' perceptions, can serve as an initial screening
device which may aid in the identification and
determination of areas of high and low intrinsic
motivation, academic achievement, and perception of
competence.

CHAPTER I

__INTRODUCTION__

Concern has recently been expressed over the increased number of students who fail to complete high school. Although this phenomenon is not new, in recent years the number of students dropping-out of school has increased tremendously and is of concern to many educators. In California, the Department of Education (1984) reports that the dropout rate has increased 100% since 1970; one in three students does not graduate from high school (among minorities, this ratio increases to five out of ten).

The role teachers play in early intervention of students dropping-out of school has yet to be examined. Teacher perceptions of students, and its impact on the retention of students in school is an area which has not been explored. Teacher perception is defined as the attributes teachers have identified of students' performance, behavior, and motivation in the classroom environment (Beckman, 1973; Good, 1981; Ames, 1983; and Rohrkemper & Brophy, 1983). It is important to identify how teachers' perceptions of students' motivation and academic achievement relate to actual motivation and performance. These perceptions may influence the learning environment of the classroom (Beckman, 1973; Weisz & Cowen, 1976; Good, 1981; Wright, Cowen, & Kaplan, 1982; Ames, 1983; Rohrkemper & Brophy, 1983) and the student's motivation to stay in school.

Although teachers must deal with other factors affecting the students' educational surroundings (i.e., social, home environment; parental problems, cultural differences, etc.), they can create an environment which fosters an early interest in learning, and hence create a continuing enthusiasm for school and learning, which may be a factor in the ultimate retention of students in school.

In prior literature, Weisz and Cowen (1976) explored the relationship between teachers' perceptions of the classroom environment and students' school adjustment problems. Because elementary school classroom environments vary, Weisz and Cowen felt that it was important to examine the relationship between teacher perceptions of the primary-grade classroom environment and teachers' judgments regarding the severity of students' school adjustment problems. Teachers were asked to complete two inventories, the Classroom Information Sheet (CIS) and the Classroom Adjustment Rating Scale (CARS). The CIS assessed the structural (i.e., average amount of time spent by children at specifically assigned desks, percentage of instructional time teachers spent with individuals, small groups and the entire class, and the percentage of time students spent working individually, in small groups and with the entire class) and psychosocial aspects (i.e., task orientation, rule clarity, innovation, competition, attention and interest, organization and affiliation) of the classroom environment. Teachers were asked to rate items describing

school adaptation problems (i.e., shy vs. anxious,
learning, how well the child is known and liked, and the
seriousness of school adjustment problems) on the CARS.
Weisz and Cowen found a significant relationship between
teachers' judgments of students' school adjustment and
teachers' descriptions of class structure. Teacher's
perceptions of primary-grade classroom environments were
related to teachers' judgements regarding the seriousness
of children's school adaptation problems. Those considered
to be "open" classes, with more individualized instruction
and work, correlated with judgements of less serious
adjustment problems. And, classes considered to be
"traditional", with more class-oriented instruction and
work, were significantly related to the teacher "knowing
and liking the children less" (p. 186). Weisz and Cowen
suggest that students who are experiencing school
adjustment problems may exhibit additional behavior
difficulties in traditional and unit-oriented classrooms.
They go on to suggest that, "classes that emphasize
individual interactions may facilitate children's
psychosocial and intellectual development" (p.186).

Teacher attributions of student performance in the
classroom have also been examined (Beckman, 1973; Good,
1981; Ames, 1983; and Rohrkemper & Brophy, 1983).
Rohrkemper and Brophy (1983) identified the potential
role teacher attributions of student performance may have
on teachers' responses to students. Teachers were asked to

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respond to vignettes depicting various student problems by describing how they would deal with the situation if it had occurred in their own classrooms. These vignettes reflected: 1) teacher-owned problems (the students' behavior interferes with the teachers' needs, affects teachers' role status); 2) teacher-student shared problems (teacher and student interfere with each other's need for satisfaction, threaten to disrupt classroom operation); and 3) student-owned problems (problems which exist independent of the teacher or the classroom). Rohrkemper and Brophy found that teachers descriptions of their responses in teacher-owned problem situations involved a higher frequency of punishment and restricted language. In teacher-student shared problems, teachers used less punishment and more rewards and praise to effect long-term changes. Teachers believed they were capable of creating stability and specific change in the students. Finally, in student-owned problems, teachers offered more encouragement and support to the student, and suggested various coping techniques to increase students' self-approval. Through their findings, Rohrkemper and Brophy suggest that "teachers need to be made aware of the effects that various attributions about students can have on their self-assessments and subsequent behavior ... such insight should help teachers to take a more proactive, problem-solving ... stance toward problem students" (p.102).

The above studies suggest the importance of teacher

perceptions of student performance in the classroom on students' actual academic performance. Teacher behaviors and responses to students, attributions of student performance, and perceptions of the classroom climate have been found to play an important role in the students' response to the classroom environment. From this research, it can be hypothesized that a positive relationship exists between teachers' perceptions of student motivation and the students' actual classroom motivation.

Gottfried (1985) found this to be the case. A positive correlation was found between teachers' perceptions of students' academic intrinsic motivation and students' actual academic intrinsic motivation. Teachers' ratings of students' intrinsic motivation were correlated with the students' Children's Academic Intrinsic Motivation Inventory (CAIMI) scores on Reading, Math, Social Studies, Science, and General subscales. Gottfried found a significant correlation between teachers' ratings of their students' intrinsic motivation and students' reports of intrinsic motivation.

The educational climate that teachers create in their classroom and its effect on the student have also been evaluated. In previous studies, it has been shown that teachers and the educational climate they create in their classrooms can influence students' motivation and academic achievement in early grades (Hunt, 1966; DeCharms, 1976;

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Solomon and Kendall, 1976; Deci, Schwartz, Sheinman, and Ryan, 1981; Harter, 1981). DeCharms (1976) describes a measure which assesses student perception of the classroom environment and teachers' behavior, and the degree to which the student perceives the classroom climate to be supportive of self-determination. Deci and Ryan (1985) refer to this classroom environment as informational, rather than controlling or amotivating. Deci, Nezlek and Sheinman (1981) studied the relationship between student perceptions of classroom climate and intrinsic motivation with 35 elementary school classrooms. Deci, et. al. correlated children's descriptions of their classroom environment with students' intrinsic motivation (as assessed with Harter's classroom intrinsic motivation scale, 1981b), students' perceived competence and self-esteem. Significant correlations exist between the students' intrinsic motivation and the degree to which the student perceived the classroom environment to be supportive of self-determination. This study also found that classroom environments correlated with students' perceived competence and self-esteem.

Deci, Schwartz, Sheinman, and Ryan (1981) developed a scale to assess teachers' orientation toward providing a classroom that supports student autonomy rather than a controlling environment. Autonomy-oriented teachers enhanced children's motivation, self-esteem and perceptions regarding their academic competence. Teachers who were

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autonomy-oriented were described as, "tending to reward and communicate informationally, ... providing structures that are useful for the children in making their own decisions and getting competence feedback" (Deci and Ryan, 1985, p. 253). Teachers, whose classrooms were control-oriented, "rewarded and communicated controllingly, ... pressuring the children to behave in specific ways" controlling not only behavior, but feelings and thoughts, as well (Deci and Ryan, p.253). Using Harter's scale of intrinsic motivation (1981) and perceived competence (1982) , Deci, et. al. found teachers' orientations had a significant effect on students' intrinsic motivation within the first two months of school. Students who had teachers who were autonomy-oriented had a tendency to be more intrinsically motivated. Follow-up studies seven months later revealed similiar results. In addition, children's feelings of self-worth and perceived academic competence were significantly correlated to teachers' orientation toward supporting autonomy in the classroom.

Recent studies have correlated students' intrinsic motivation with academic performance (Sadowski and Woodward, 1981; Gottfried, 1985). Gottfried (1985) defines academic intrinsic motivation as "enjoyment of school learning characterized by an orientation toward mastery; curiosity; persistence, task-endogeny; and the learning of challenging, difficult and novel tasks" (p. 632). The Children's Academic Intrinsic Motivation Inventory (CAIMI)

was developed based on this definition and evaluates academic intrinsic motivation in reading, math, social sciences, and science. Students from fourth grade to junior high school participated in the 1985 study. Using the CAIMI, Gottfried found that academic intrinsic motivation was positively correlated with school achievement and perceptions of academic competence.

Sadowski and Woodward (1981) explored the relationship between students' academic performances and their view of the classroom climate. Students in Eighth and Eleventh grade math classes were asked to assess the classroom climate with the Origin Climate Questionnaire (DeCharms, 1976). The Questionnaire evaluated students' perceptions of teachers behaviors; whether teachers' behaviors were considered autonomy-oriented (i.e., goal-setting or goal-directed, promoting internal control, personal responsibility and self-confidence). Students were also asked to measure their attributions of responsibility for academic outcomes with the Intellectual Achievement Responsibility Questionnaire (Crandall, Katkovsky, & Crandall, 1965). Students' grades were collected as a measure of academic performance. Sadowski and Woodward found a positive correlation between students' perceptions of the classroom environment as autonomy oriented and academic performance. In interpreting Sadowski and Woodward's findings, Deci and Ryan state that, "those conditions that are autonomy supporting and informational

will promote more effective learning as well as enhanced intrinsic motivation and self-esteem. ... [Through Sadowski and Woodward's research] it seems clear, then, that intrinsic motivation is related to academic performance" (Deci & Ryan, 1985, p.256).

Many prevention strategies (Zeaman, 1974; Rodick & Henggeler, 1980; Henry, 1986; New York State Education Department, 1986) have been proposed and implemented which include early intervention measures for drop-out prevention. A thorough review of the literature does not reveal any programs that currently implement the concepts found in academic intrinsic motivational research. However, all programs that have recently been implemented recommend early intervention. According to the New York State Education Department (1986), "Unless early interventions are available, problems start and grow over the school years. By the end of the primary grades negative effects are manifest not only in school failure, but also in negative attitudes toward school and negative student self image" (p. 16). Hechinger (1986) writes, "experiments have shown that early childhood education of high quality can give children the skills and attitudes needed for success in school and life. Sending students to high school without such skills and attitudes ... forces them to drop out, first out of school and later out of society".

Rodick and Henggeler (1980) found an increase in

academic reading achievement and motivation in their

intervention program which involved "low-achieving" 7th

grade students in an inner-city junior high school.   In

their study, Rodick and Henggler used the school-based,

highly structured, SMART (Staats Motivation Activating

Reading Technique) Program and PUSH Program, which included

parental involvement and a restructuring of the home

environment.   Students were randomly assigned to different

groups.   Those assigned to participate in the SMART group

received daily feedback about their individual performance

from tutors.   Each week they were informed about their

progress and the goals for the coming week. Parental

involvement and support was emphasized to parents and

students participating in the PUSH group.   The creation of

a home environment which supported educational development

was emphasized.   Parents were required to set a daily study

hour to work with their children in reading or school-

related tasks.   It was found that students who participated

in the SMART Program exhibited immediate increases in their

academic reading skills and achievement motivation.

Although students involved in the PUSH Program did not

exhibit immediate responses, results compiled immediately

after the termination of the study show an increase in

academic reading skills equivalent to those displayed by

students participating in the SMART Program.   Students

involved in PUSH continued to exhibit an increase in

reading skills and motivation six months after their

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participation in the study had terminated. Students in the
SMART Program did not maintain their increased reading
skills, and in fact demonstrated a decrease in vocabulary
and reading scores.   Rodick and Henggeler cite parental
involvement and the restructuring of the home environment
as the cause for this difference. Without outside
supervision from tutors, students in the SMART group did
not continue to receive feedback on their school
performance. Changes made in the home environment in the
PUSH group facilitated improvements in school performance
which continued without outside supervision and
participation in the study.

The model program, "Project Stay", (School to Aid
Youth) was implemented in Oklahoma in 1971 to identify and
assist children to feel comfortable within their school
environment. In this program, characteristics such as
"irregular attendance, lack of reading readiness followed
by significantly poor reading ability, a tendency to
withdraw from classroom activities, consistently failing or
near-failing grades and antisocial behavior" (Zeaman, 1974,
p. 12) were identified as predictors of dropping-out in
later school years. To assist in identification of these
characteristics, the Metropolitan Readiness Test was
administered to students as early as the first grade. The
goal of the MRT was to identify students who were likely to
have special needs that would not be met by the standard
curriculum. In addition, teacher perceptions of the

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students and informal evaluations about students' classroom difficulties were also given consideration. Formal evaluation of this program has not yet been performed, however, among the teaching staff, students and parents, this program is considered to be a success.

In the San Bernardino School District in California, an early intervention drop-out prevention program, "Project Early Outreach" was implemented to provide counseling, tutoring and support to elementary students (Henry, 1986). Using the Comprehensive Test of Basic Skills (CTBS) as an evaluative measure, 69% of the students participating in the program showed increase in reading and language skills and 50% displayed an improvement in mathematics. Increase in CTBS scores were displayed as early as one week into the program.

Because many of these programs have recently been implemented, complete data on the effectiveness of early intervention has not yet been determined. However, the positive effects maintained thus far in these programs illustrates the importance of early intervention and identification in the prevention of students dropping out of school in later years.

A common thread running throughout early intervention strategies is the use of teacher perception or evaluation as an initial indicator of a students' potential high-risk attributes. The utility of teacher perceptions in early identification of students at-risk for dropping-out of

school in later years has not yet been evaluated.

In order to determine the utility of teacher perceptions in the early years, the relationship between teachers' perceptions of students' intrinsic motivation and academic achievement are evaluated in the present study. It is hypothesized that a positive relationship exists between 1) teachers' perceptions of students' motivation and students' motivation, achievement, and perception of competence; and 2) teachers' perceptions of students' achievement and students' motivation, achievement and perception of competence.

CHAPTER 2

METHOD

SUBJECTS

Participants were first, second and third graders in
an ethnically diverse, middle-class, public school. There
were 32 first graders (20 girls and 12 boys); 32 second
graders (14 girls and 18 boys); and 34 third graders (18
girls and 16 boys). Ethnic breakdown of the student-
subject population is as follows: 51 White, 16 Black, 12
Asian, 14 Hispanic, and 5 categorized as "Other". Written
parental permission had been obtained for all participants.

MEASURES USED

Children's Academic Intrinsic Motivation Inventory.

The Children's Academic Intrinsic Motivation Inventory
(CAIMI) was used to measure students' intrinsic motivation
for school learning. A downward extension of the CAIMI
was developed (Gottfried, 1988), and employed in this
study. The downward extension was modified for appropriate
use in the evaluation of academic intrinsic motivation
with younger children (grades 1-3). Lisrel analysis
(Gottfried, 1988) revealed four subject subscales:
Reading, Math, General, and "Easy" items. Each subject
area included twelve statements to be responded to, except
the "Easy" subject area, which had three. Reading and
Math scales included the same items, except they referred
to reading and math, respectively. The General scale

included similar items related to school in general, and the "Easy" items referred to doing easy work in school. Examples are, "I like learning new things in reading", or "I don't like to figure out new reading words". As in the original CAIMI, these statements measured the students' perceived intrinsic motivation in that specific subject area. After each item was read aloud, students were presented with three cards on which were printed, "Very True", "A Little True", or "Not True". They were informed that they could respond verbally or by pointing to the appropriate cards. In addition to perceived intrinsic motivation, students were also asked to respond to statements which evaluated their perception of competence. They were asked to respond to, "I do well in reading in school", "I do well in math in school", and "I do well in school".

Teachers' Perceptions of Students' Intrinsic Motivation.

Teachers were presented with a definition of academic intrinsic motivation (i.e., "enjoyment of school learning; an orientation toward mastery, curiosity, and persistence; and an orientation to learn challenging, difficult, and novel tasks") and asked to indicate for each student, "how intrinsically motivated [you] perceive him/her to be in the subject areas of reading, math, and for school work in general. A five-point Likert scale was used with responses ranging from "not at all intrinsically motivated" to "very

strongly intrinsically motivated".

Academic Achievement

Teachers Ratings. Teachers in each participating class were asked to assist the researchers by indicating "how well each student was doing in school in reading, math, and in school work in general". The following 5-point Likert scale was used by the teachers to evaluate each students' academic achievement: (1) Far below grade level, (2) Somewhat below grade level, (3) At grade level, (4) Somewhat above grade level, and (5) Far above grade level.

Comprehensive Test of Basic Skills. The Comprehensive Test of Basic Skills (CTBS), a standardized achievement test, was used as a measure of the students' actual academic achievement. Administration of the CTBS and the CAIMI occurred within the same time period. Actual test scores, percentile ranking, and stanines were collected for each participating student. All students were evaluated on the subject areas: Reading, Math, and Word Attack.

PROCEDURE

Prior to the CAIMI's administration, researchers met with those teachers involved and the principal to explain the purpose and procedure of the study and to answer any questions.

The CAIMI was individually administered to each child by two data collectors. Students were administered the

CAIMI and informed by the test administrators that they would be asked "what they found interesting in school and what subjects they liked or didn't like". The CAIMI was administered untimed. The administrator read the instructions to the child, emphasizing that their responses would be confidential. Responses were then recorded by the data collector on a clipboard out of view from the child.

Administration of the CAIMI required approximately 15-25 minutes, depending on the age of the child (younger children usually required more time to complete the inventory). At the conclusion of the administration, students were asked not to discuss the statements or their responses with any of their classmates.

Two types of reliability were computed (Gottfried, 1988). Coefficient alpha, internal consistency, reliability was computed. These coefficients were .77 for reading, .76 for math, .69 for general, and .86 for the easy scale, indicating substantial item homogeneity within the scales. Test-retest reliability over a two-month interval was evaluated on 58 subjects who were available during this time period. These reliability coefficients results were significant within each subject area: reading = .73; math = .73; general = .74; and easy items = .80, $p < .01$, indicating moderately strong stability over a two-month period.

CHAPTER 3

RESULTS

Preliminary analyses showed no substantial differences between Grade and Sex and Ethnicity. Therefore, data presented represents a combination across Grade, Sex and Ethnicity variables. Data for all grades are presented. Pearson product-moment correlations were used to analyze all relationships.

Children's Academic Intrinsic Motivation Inventory

Correlations were computed between each of the CAIMI subscales and teachers' ratings of students' intrinsic motivation (see Table 1). Data suggest positive correlations overall and support the hypothesis that there is a relationship between teachers' perceptions of motivation and students' intrinsic motivation.

Table 1

Correlations Between Teachers' Ratings of Motivation and
CAIMI Subscales

TEACHERS RATINGS OF MOTIVATION	CAIMI SUBSCALES			
	Reading	Math	General	Easy
ALL GRADES				
(N = 96-98)				
Reading	.19*	.18*	.21*	.07
Math	.18*	.19*	.25**	.18*
General	.19*	.21*	.24**	.08

Note: CAIMI = Children's Academic Intrinsic Motivation
Inventory
        *p < .05.   **p < .01.   ***p < .001.

Positive correlations were found across the Reading,
Math, and General subscales and teachers' ratings of
intrinsic motivation across all grades, ranging from .18
to .21 (p < .05) and .24 to .25 (p < .01). Although these
are not strong correlations, they indicate that overall
teachers are aware of students' intrinsic motivation.
Across all grades, teachers' ratings of students' intrinsic
motivation in Math and General subject areas were strongly
correlated with students' general motivation. This is
consistent with Gottfried's findings (1985) which showed
that the Math and General subscales were most consistently
correlated with teachers' ratings of students' intrinsic
motivation.

Positive correlations were obtained between teachers'
ratings of math achievement and Math, General, and Easy
subscales of the CAIMI (see Table 2). Students' math
motivation was correlated specifically with teachers'
ratings of math motivation.

Table 2

**Correlations Between Teachers' Ratings of Achievement and
CAIMI Subscales**

TEACHERS RATINGS OF ACHIEVEMENT	CAIMI SUBSCALES			
	Reading	Math	General	Easy
ALL GRADES				
(N = 97-98)				
Reading	.06	.13	.09	.13
Math	.15	.20*	.18*	.22*
General	.10	.13	.18*	.14

Note: CAIMI = Children's Academic Intrinsic Motivation
Inventory
    *p < .05.   **p < .01.   ***p < .001.

Achievement Test Scores

Teachers' ratings of intrinsic motivation were
correlated with CTBS scores (See Table 3). Data indicate
significant positive correlations between teachers' ratings
and achievement test scores.

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Table 3

Correlations Between Teachers' Ratings of Motivation and
Achievement Test Scores

TEACHERS RATINGS OF MOTIVATION	ACHIEVEMENT TEST SCORES		
	Reading	Math	Word Attack
ALL GRADES			
(N = 83-87)			
Reading	.66***	.68***	.70***
Math	.63***	.66***	.68***
General	.64***	.67***	.67***

Note: *p < .05.   **p < .01.   ***p < .001.

Significant correlations between teachers' ratings of
student intrinsic motivation and CTBS scores range from .63
to .70.

Teachers' ratings of achievement and achievement test
scores were also strongly correlated (see Table 4).

Table 4

Correlations Between Teachers' Ratings of Achievement and Achievement Test Scores

TEACHERS RATINGS OF ACHIEVEMENT	ACHIEVEMENT TEST SCORES		
	Reading	Math	Word Attack
ALL GRADES			
(N = 84-87)			
Reading	.77***	.72***	.77***
Math	.74***	.72***	.72***
General	.74***	.71***	.73***

Note: *p < .05. **p < .01. ***p < .001.

Teachers' ratings of student achievement and CTBS scores show a significant and positive correlation (ranging from .71 to .77, p < .001), and support the hypothesis that teachers' perceptions of students' achievement is related to students' school achievement.

The results support the hypothesis that teachers' perceptions of intrinsic motivation and academic achievement is positively and significantly related to students' school achievement, as measured by the standardized achievement test (CTBS).

Perception of Competence

Correlations between teachers' ratings of students' intrinsic motivation and students' perception of competence were computed (See Table 5).

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Table 5

Correlations Between Teachers' Ratings of Motivation and
Children's Perception of Competence

	CHILDREN'S PERCEPTION OF COMPETENCE		
TEACHERS RATINGS OF MOTIVATION	Reading	Math	General
ALL GRADES			
(N = 96-98)			
Reading	.09	.14	.26**
Math	.05	.15	.24**
General	.08	.17	.26**

Note: *p < .05.   **p < .01.   ***p < .001.

Reading and Math subject areas show no significant

correlation. Positive correlation was found, however,

between teachers' ratings of intrinsic motivation in

all grades, across reading, math, and general subject

areas, and students' estimate of general perception of

competence. Correlations ranged from .24 to .26 (p < .01).

Teachers' ratings of achievement were correlated with

students' perception of competence (see Table 6).

Table 6

Correlations Between Teachers Ratings of Achievement and
Children's Perception of Competence

TEACHERS RATINGS OF ACHIEVEMENT	CHILDREN'S PERCEPTION OF COMPETENCE		
	Reading	Math	General
ALL GRADES			
(N = 97-98)			
Reading	.10	.14	.21*
Math	.05	.13	.17*
General	.05	.11	.17*

Note: *p < .05.   **p < .01.   ***p < .001.

Teachers' ratings of achievement in all grades, across
all subject areas (i.e., reading, math, and general), and
students' General perception of competence were also found
to be related, with correlations ranging .17 to .21
(p < .05).

Teachers' Perceptions of Students' Intrinsic Motivation and Achievement

Teachers' ratings of students' intrinsic motivation and
academic achievement were also correlated (see Table 7).

Table 7

Correlations Between Teachers' Ratings of Student Achievement and Intrinsic Motivation

TEACHERS' RATINGS OF STUDENT ACHIEVEMENT	TEACHERS' RATINGS OF STUDENT INTRINSIC MOTIVATION		
	Reading	Math	General
(N = 95-98)			
Reading	.76***	.74***	.73***
Math	.73***	.80***	.75***
General	.76***	.76***	.79***

Note: *p < .05.   **p < .01.   ***p < .001.

Results indicate that teachers' perceptions of students' intrinsic motivation are strongly correlated with their perceptions of academic achievement (ranging from .73 to .80, p <.001).

CHAPTER 4

DISCUSSION

The results presented in this study provide support for the original hypotheses. Positive correlations were obtained between teachers' perceptions of students' intrinsic motivation and academic achievement and children's intrinsic motivation, academic achievement, and perception of competence.

The strongest correlations were found between teachers' ratings of achievement and students' achievement test scores. This may be a result of the procedures surrounding the administration and access of the CTBS. Teachers administer the CTBS and have access to all test scores, and would therefore have more insight into the students' achievement as measured by the standardized test. Although positive, correlations between teachers' ratings of intrinsic motivation and academic achievement and students' perception of competence and motivation were not as strong. This is understandable, since teachers may not always be cognizant of those areas of students' perceived competence or strong motivation.

The results of this study have displayed the variability of teachers' perceptions of motivation and achievement and its relation with student achievement, intrinsic motivation and perception of competence. Teachers seem more capable of making general judgments

rather than differentiating by subject area (see Tables 1-6).

Table 7 indicates that teachers may be predicating their perceptions of motivation on students' achievement. Correlations between teachers' ratings of achievement with students' motivation, achievement and perception of competence were also stronger than teachers' ratings of motivation. The correlations suggest that teachers' perceptions of motivation are based on their judgments of student achievement, rather than motivation.

Based on the above correlations, the usefulness or validity of teacher perceptions in the early years must be evaluated further. The threat of potential misuse of teachers' perceptions may create a self-fulfilling prophecy for students. If teachers use their perceptions of student achievement to rate motivation, they may be creating expectations of motivation in children based on achievement. Teacher perceptions will continue to be used in early intervention programs as a means of early identification for potential high-risk attributes for dropping-out of school. It is, therefore, important that teachers are provided with the instruments and educational training necessary to validate their perceptions of a students' high-risk attributes. It is proposed through the results of this study that teachers use the CAIMI to substantiate and verify their own perceptions of those students they have identified as being at-risk for

dropping-out of school in later years. Because teachers'
perceptions vary, it is important to use a constant,
unbiased measure to evaluate and verify those areas of high
and low academic motivation. Once identified, teachers may
then work with school administrators, parents, and
community resources to provide an environment that is
conducive to the students' motivation to learn, and
ultimate retention in school.

There are strong implications for programs utilizing
strategies which stress early intervention. Concerns about
the effects various experiences in early grades have in
later years has been expressed (Entwisle & Hayduk, 1983;
Krause, 1973; Husen, 1969). By the end of the Third grade,
students' earlier experiences have been shown to determine
achievement motivation in later years (Entwisle & Hayduk,
1983).

Gottfried (1983) recognizes the importance of teachers
and the classroom environment they create in the
development of students' academic intrinsic motivation,
"teachers need to observe and assess each child's cognitive
development, individualize instruction as much as possible,
and provide stimuli that are discrepant from children's
current developmental abilities" (p. 30). The structure of
our public educational system is immense and makes it
difficult and almost impossible for teachers to
individualize instruction for each student in their
classroom. Early intervention programs currently

implemented, which involve community resources, peer tutoring, and parent involvement may alleviate this responsibility for individualized instruction.

It is proposed from the results of this study that the CAIMI scale may be used in conjunction with teachers' perceptions, in an early educational environment, as an initial screening device to identify and determine areas of high and low academic intrinsic motivation. With this information, educators may then implement appropriate interventional strategies. However, future longitudinal studies must be performed with the CAIMI in early grades and actual classroom situations to determine it's exact uses in early identification and drop-out prevention.

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