DOCUMENT RESUME

ED 143 359

IR 005 135

AUTHOR   Pauker, Robert A.; Hambleton, Ronald K.
TITLE   Matching Students and Teachers to Maximize Learning:
            What Do Students Think?
PUB DATE   Nov 76
NOTE   26p.; Paper presented at the annual meeting of the
            International Congress for Individualized Instruction
            (Boston, Massachusetts, November 18-20, 1976)

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Data Collection; Educational Theories; Elementary
            Grades; *Measurement Instruments; Research Reviews
            (Publications); *Secondary Grades; *Student
            Attitudes; *Student Opinion; *Student Teacher
            Relationship
IDENTIFIERS Conceptual Systems Theory

ABSTRACT
            The theories and research of David Hunt and O.J.
Harvey regarding conceptual systems matching of teachers and students
are reviewed in this paper. Empirical evidence in support of these
theories and instrumentation limitations are discussed. One such
limitation is that students are not given an opportunity to express
preferences for instructional styles. Description is given of the
content and development of an instrument designed to provide
educators with information on how students perceive (1) their own
need for structure, and (2) the degree to which teacher-student
matches and mismatches cause a fluctuating level of classroom state
anxiety affecting student learning. The results of data collection
utilizing the instrument in a school setting are reported, with a
discussion of how teachers might use this data to better understand
their students. (Author/KP)

Matching Students and Teachers to Maximize Learning:
What do Students Think?

Robert Pauker
West Hartford Public Schools

and

Ronald K. Hambleton
University of Massachusetts, Amherst

2

Matching Students and Teachers to Maximize Learning:
What do Students Think?

Robert Pauker
West Hartford Public Schools

and

Ronald K. Hambleton
University of Massachusetts, Amherst

In recent years there has been considerable interest among edu-
cators in the design of flexible learning environments. In part,
this interest has arisen from the belief among many educators and
psychologists that the quality of instruction can be improved for
students by providing them with learning environments which are
"matched" to their learning styles and their personalities (Bracht,
1970; Murphy and Brown, 1970; Prather, Harvey, & Coates, 1970; Rogers,
1969). Unfortunately, instructional science is not developed to the
point where guidelines are readily available for matching teachers
and students so as to optimize student learning. There are, how-
ever, certain promising strategies that deserve to be thoroughly
studied. One such strategy involves the matching of teachers (or
teacher behaviors) to student learning styles (Harvey, 1970a, 1970b,
1974b, 1976; Hunt, 1970, 1971, 1972, 1974, 1975; Hunt and Sullivan,
1974). Proponents of matching teachers to student learning styles
maintain that student learning will be enhanced when students receive
instruction in modes consistent with their most effective learning
styles.

The purpose of the research described in this paper is three-fold:

First, we will review briefly the theories of Hunt and Harvey regarding the matching of teachers and students. Second, we will describe the development and content of an instrument designed to accomplish two goals: 1. Provide educators with information about how matches and mismatches affect student levels of classroom anxiety, and 2. provide teachers with information pertaining to student preferences of different kinds of classroom environments and instructional styles. Finally, we will report some results of data collect'd utilizing the instrument in one school setting and discuss the utility of the results for classroom teachers.

Conceptual Systems Theory

One method for matching teachers and students has grown out of the Conceptual Systems Theory developed by Harvey, Hunt, & Schroder (1961). Their theory focused on four stages of conceptual development: At one extreme, an individual is externally controlled, at the other, the individual is autonomous.

Based on the Conceptual Systems Theory, Hunt has developed the conceptual level matching model. The purpose of the model is to provide a framework for optimally matching teachers and students in keeping with their existing conceptual structures. Hunt (1974) established three developmental stages for students. In Hunt's theory, Stage A is viewed as the lowest conceptual level. At this level, students are characterized by concreteness, impulsiveness and poor tolerance for frustration. Also, students are not able to effectively integrate their environmental perceptions. Stage B, the middle stage, is the next conceptual level. At this stage, students are concerned

with rules, dependent on authority, and tend to think categorically. Stage C is the highest level and at this level, students display inquiry, self-assertiveness, questioning, and an ability to create alternatives available.

Each of these stages of development corresponds to a structural need. A teacher or student operating at stage A needs a highly structured environment, while an individual at stage C benefits from a less structured environment. The Conceptual Level matching model maintains that a match occurs when teacher and student are operating at the same conceptual stage or when the teacher is at a higher conceptual stage than the student.

Since 1961, Harvey and his associates have conducted research on the relationship between belief systems. Those students at his System 1 level tend to be the most concrete (least flexible) while those at his System 4 level tend to be the most abstract (most flexible). The more concrete student tends to have a simpler cognitive structure, and therefore has a need for a high level of classroom structure. The more abstract student, with a more complex cognitive structure, tends to benefit from a classroom environment with less structure. In practice, students and teachers range in the degree to which they can function in an abstract setting. Some individuals function well only in a highly concrete situation. Other individuals can function in highly abstract settings. Most individuals fall somewhere between these two extremes.

Several studies have been conducted by Harvey and his associates to assess the behaviors of teachers with different belief systems. What is the influence of a teacher's system on the classroom

atmosphere? Harvey (1970a) summarizes this influence as follows:

> Probably the most crucial determinant of the classroom
> environment, and thus of the learning conditions surroun-
> ding the students is the behavior of the teacher and the
> atmosphere he/she produces. In turn, her/his behavior,
> the resulting classroom atmosphere and the influence he/
> she has on her/his students are all influenced heavily by
> the nature of his/her beliefs (pp. 78-79).

Among the most interesting and important results of belief sys-

tems theory are the following:

1. Abstract teachers display different behaviors from con-
   crete teachers (Harvey, White, Prather, Atter, & Hoff-
   meister, 1966; Harvey, Wells, Schmidt, & Grimm, 1973).

2. Students of more abstract teachers tend to display more
   positive classroom behaviors (Harvey, Prather, White, &
   Hoffmeister, 1968).

3. Students generally prefer abstract teachers (Prather,
   Harvey, & Coates, 1970).

4. Students' belief systems can affect their academic
   achievement as measured by grades (Harvey, Wells,
   Schmidt, & Grimm, 1973).

Conceptual Systems Instrumentation

To date there are three widely used instruments for measuring

conceptual systems. Both the This I Believe Test (Harvey, 1974a)

and the Paragraph Completion Method (Hunt, Greenwood, Noy, & Watson,

1973) are instruments which require the individual to respond to a

series of statements within a specified period of time. Both in-

struments must be scored by trained raters. The Conceptual System

Test (Harvey and Hoffmeister, 1971) is an objective test designed to

measure belief system levels on six dimensions. Harvey (1976) has

also developed a more informal instrument for usage by elementary

school students.

The three measures of conceptual systems mentioned above have provided researchers with valuable information about how conceptually matched and mismatched teachers and students interact. Further data from these instruments should also be extremely valuable to educators who are interested in learning more about designing optimum learning environments for students.

In addition, supplementary instruments are needed to substantiate or repudiate information gained from formal conceptual systems measures and to supply additional information to educators on how students learn. We believe that instruments should be developed to help researchers and teachers learn more about how students view their own optimal levels of classroom structure and how being matched or mismatched with different levels of classroom structure affect their learning.

Student Structural Perception Instrument

The Student Structural Perception Instrument (SSPI) was designed to meet two important goals. The first was to develop an instrument which would provide teachers with information on how students perceive their own optimum levels of classroom structure. The information would be useful to teachers for establishing an initial measure for optimally matching students and teachers. The second goal was to provide teachers and administrators with information about how students perceive their individual levels of classroom anxiety fluctuating with matched and mismatched teacher-student classroom situations. Student classroom anxiety is a particularly important variable because it is well-known that classroom anxiety is negatively

correlated with school achievement.

The SSPI is divided into four parts. The first two parts are specifically concerned with information about student preferences for different learning environments. The items in these parts were derived primarily from the work of Hunt (1970, 1971, 1972, 1974, and 1975) and the description of the work completed by Hunt described in Hunt and Sullivan (1974). Hunt and Sullivan (1974) discussed the development of alternative educational environments in two high schools. One school was highly structured, while the other was less structured. Students were given an alternative as to which school they preferred to attend. In helping students to choose which of the high schools they wanted to attend, students were given four basic questions to consider:

1. Has it been your experience that you are happier in an atmosphere where the academic requirements and the requirements of behavior are very clear to you and your teacher?

2. Has it been your experience that you learn better in a program which is presented in a logically and orderly fashion?

3. Are you the kind of a student who can find real satisfaction in your growth as an individual by contributing your best to your school community while developing your own personal aims?

4. Are you the kind of student who finds that success means more to you when you face and overcome difficulties rather than avoiding them?

Since the purpose of parts one and two of the SSPI is to help teachers study student perceptions of various classroom environments, the first two questions above served as the background for the development of questions. Other ideas for questions came from a questionnaire developed by Harvey (1976).

Each of the twelve items in parts one and two presents students with a question followed by two possible responses. Part one concerns the types of learning environments in which students feel more comfortable. Part two concerns the types of learning environments in which students feel they learn the most.

The third part of the instrument was designed to provide an indication of how much students worry in class. Students are directed to read a series of school-related situations that occur in a particular teacher's classroom and to respond to each by answering "Almost Always", "Often", "Sometimes", or "Never". Based upon student responses to 15 of the 17 situations, each student receives a score ranging from zero to 45, with a score of 45 corresponding to the highest level of worry. Students are asked to respond to the situations that arise in a particular classroom so that results will be especially meaningful to a single teacher.

The final part of the instrument was designed to help a classroom teacher study the degree to which students perceive mismatches between themselves and their teachers as heightening their levels of classroom anxiety and, consequently, interfering with their learning. This part is comprised of six questions, four which direct students to select choices, and two which require written responses. A copy of the SSPI is presented in Appendix A.

Some Illustrative Instrument Data Analysis

Based upon data received from a class of 37 seventh grade students, initial descriptive statistical results from the SSPI will now be described. The results are intended to be illustrative of

the types of analyses that are possible with a set of SSPI scores.
The results are reported in Tables 1 and 2. The first two parts
of the instrument were designed to measure student need for struc-
ture on two dimensions: Student preference and optimal student
learning. It was expected that a strong correlation would exist
between parallel questions from parts one and two. This was the
case, as the following correlations occurred: .68, .42, .64, .65,
.65, and .53, between items one and seven, items two and eight,
and so on, respectively. Each of these correlations was significant
at the .001 level. From these results it is clear that the students
tended to view a preferential instructional style as the one through
which they learned the most, although the relationship was far from
perfect.

Also, it was interesting to observe the trend by the students
toward the selection of more structured responses when assessing
how they learn best. Such a result could be particularly informa-
tive to the classroom teacher.

Based on data collected from Part III of the SSPI, we correlated
student worry scores with trait and state anxiety scores from the
State-Trait Anxiety Inventory for Children (STAIC) (Spielberger,
Edwards, Lushene, Montouri, & Platzek, 1973). The correlations were
.48 and .35, respectively. The moderately high correlations provide
partial evidence of the construct validity of the worry scale.

The final part of the SSPI was designed to determine if stu-
dents perceived themselves as more anxious in mismatched classroom
situations than in matched classroom situations. Our analysis of
part four data was concerned with reporting the responses of the
total group and the high and low worry groups to the questions.

Table 1

Student Responses to Part I and Part II of the Student Structural Perception Instrument

Question	Percentage of Responses		
	Total Group (N=37)	Worry Scale High (N=12)	Low (N=25)

Part I

1. To which of the following types of classes do you most look forward to going?

Question	Total Group (N=37)	High (N=12)	Low (N=25)
a. a class where the teacher tells you how you are to do your work assignments	45.9	50.0	44.0
b. a class where the teacher lets you choose how you are to do your work assignments	54.1	50.0	56.0

2. Which do you prefer?

a. a teacher who makes all of the day-to day decisions in class for you	8.1	8.3	8.0
b. a teacher who lets you make some of the day to day decisions in class	91.9	91.7	92.0

3. Which do you prefer?

a. to have your teacher give you problems to solve	91.7	90.0	92.0
b. to solve problems you have thought of yourself	8.3	9.1	8.0

4. Which do you prefer?

a. a teacher who carefully guides you through the solution to a problem	47.2	41.7	50.0
b. a teacher who gives you some information and lets you find the answers to a problem yourself	52.8	58.3	50.0

5. Which do you prefer?

a. a lecture by your teacher on a topic	13.5	16.7	12.0
b. a class discussion on a topic	86.5	83.3	88.0

Table 1 (continued)

Question	Percentage of Responses		
	Total Group (N=37)	Worry Scale High (N=12)	Low (N=25)
6. Which do you prefer?			
a. a classroom in which the students talk to the teacher about a class topic	45.9	50.0	44.0
b. a classroom in which the students talk to each other about a class topic	54.1	50.0	56.0
Part II			
7. In which of the following types of classes do you learn best?			
a. a class where the teacher tells you how you are to do your work assignments	62.2	50.0	68.0
b. a class where the teachers lets you choose how you are to do your work assignments	37.8	25.0	16.0
8. How would you learn best?			
a. from a teacher who makes all of the day to day decisions in class for you	18.9	25.0	16.0
b. from a teacher who lets you make some of the day to day decisions in class	81.1	75.0	84.0
9. How would you learn best?			
a. from a teacher who gives you problems to solve	91.7	81.8	96.0
b. from a teacher who lets you solve problems you have thought of yourself	8.3	13.2	4.0
10. How would you learn best?			
a. from a teacher who carefully guides you through the solution to a problem	54.1	50.0	56.0
b. from a teacher who gives you some information and lets you find the answers to a problem yourself	45.9	50.0	44.0

Table 1 (continued)

Question	Percentage of Responses		
	Total Group	Worry Scale	
		High	Low
	(N=37)	(N=12)	(N=25)
11. How would you learn best?			
a. from a lecture by your teacher on a topic	32.4	33.3	31.8
b. from a class discussion on a topic	67.6	66.7	68.2
12. How would you learn best?			
a. from a classroom in which the students talk to the teacher about a class topic	47.2	50.0	45.8
b. from a classroom in which the students talk to each other about a class topic	52.8	50.0	54.2

Table 2

Student Responses to Part IV of the
Student Structural Perception Instrument

Question	Percentage of Responses		
	Total Group (N=37)	Worry Scale High (N=12)	Low (N=25)
Part IV			
1. Do some teachers make you more nervous than other teachers?			
a. yes	73.0	66.7	76.0
b. no	27.0	33.3	24.0
2. How do you usually feel in school?			
a. very nervous	5.5	16.7	0
b. nervous	8.1	25.0	0
c. somewhat nervous	45.9	41.7	48.0
d. not nervous at all	40.5	16.7	52.0
3. Let us suppose that you are in a class with a teacher who makes you nervous. How does this affect your learning?			
a. I learn more	2.7	0	4.0
b. I learn less	67.6	75.0	64.0
c. I learn about the same as in other classes	29.7	25.0	32.0
How does this affect your feeling about school?			
a. I feel better about school	2.8	8.3	0
b. I feel worse about school	66.7	66.7	66.7
c. I feel about the same as in other classes	30.6	25.0	33.3
How does this affect your feeling about yourself?			
a. I feel better about myself	5.6	8.3	4.2
b. I feel worse about myself	55.6	66.7	50.0
c. I feel the same about myself as in other classes	38.9	25.0	45.8

Table 2 (continued)

Question	Percentage of Responses		
	Total Group	Worry Scale	
		High	Low
	(N=37)	(N=12)	(N=25)
6. Suppose you are in a class where the teacher presents material in a way you do not like. How much does this affect your learning of the material?			
a. a great deal	5.6	16.7	0
b. a good amount	27.8	33.3	25.0
c. a little bit	58.3	41.7	66.7
d. not at all	8.3	8.3	8.3
How does this situation make you feel?			
a. very nervous	8.3	16.7	4.2
b. nervous	16.7	16.7	16.7
c. somewhat nervous	52.8	41.6	58.3
d. not nervous at all	22.2	25.0	20.8

The main results on the class of students being studied-seemed to be these:

1. Most students felt that some teachers make them more nervous than others.

2. 70% of the students felt that they learn less with teachers that make them nervous.

3. Factors such as teacher "needless" yelling, and asking inappropriate questions contributes most to student nervousness.

4. Most students felt that inappropriate teaching methods affect their learning and makes them nervous. High anxious students are more adversely affected than low anxious students.

A classroom teacher receiving these instrument results could learn a great deal about optimum instructional styles for the entire class, groups of students, and individuals within the classroom. Certainly proper utilization of the instrument information would be directly related to teacher flexibility.

Presuming that the teacher involved is flexible enough to adapt instructional styles, the results obtained from this instrument could help the teacher to assess which approach(es) to the material will best enhance student learning. Some specific steps involved in proper utilization of the information are:

1. The teacher needs to select those items from Parts I and II of the instrument to which he/she can adapt instruction.

2. Based upon a selection of items, the teacher can determine if student responses are weighted to one choice or evenly split between the two dichotomous choices.

3. If responses are weighted to one choice, the teacher can develop his/her course framework to match the majority of student responses.

4. If responses are evenly split, the teacher needs to consider how to best address each group without compromising instructional time.

5. The teacher needs to carefully review the student responses to Part IV of the instrument, and based upon those students who have indicated that mismatches make them nervous and negatively affect their learning, the teacher needs to determine whether or not the instructional style(s) to be employed can meet the needs of this group of students.

For results of this instrument to be most effectively utilized by the teacher, strong input is necessary from guidance personnel and school administrators. Teachers should not be left with the sole responsibility of interpreting student responses, but they should remain the primary agents determining approaches to be used.

Concluding Remarks

In this paper we have presented an instrument in its formative stages which is designed to measure:

1. How students perceive their own classroom structural needs.

2. How teacher-student matches and mismatches affect student learning.

This type of instrument can be used to complement information obtained from more formal conceptual systems measures or can be used in isolation by a school system to quickly assess how to best match students and teachers.

The information obtained from this type of instrument will either reconfirm previous beliefs about a particular student or group of students or provide new information which may significantly contribute to enhanced academic success. In the remainder of this section, we will suggest some specific ways of utilizing the results collected from the instrument.

This type of instrument can be effectively implemented by

17

teachers, guidance counselors or school principals in several ways.
First, this instrument can be given to a general student population
to determine preferential learning styles and to subsequently match
students with teachers who provide a desired degree of structure.
Such matches can be considered in terms of grouping like instruc-
tional needs or by strategically placing those students whose results
indicate an adverse reaction to mismatches into the best classroom
situation available.

Second, this type of instrument can be used as a diagnostic
tool for more clearly assessing causes for poor student academic
performance. This can be especially helpful in places where a main-
streaming law has been mandated. In cases where a student's aca-
demic progress is contingent upon his/her successful relationship
with school specialists, results may be used to place a particular
student in the school with the specialist team that can most effec-
tively interact with her/him.

Third, results can be used by school systems to focus upon
certain subject areas where academic results have not been satisfying.
It may be worthwhile to carefully match students and teachers within
this subject area for one year and then compare student academic
progress indicators.

Fourth, this instrument can be used as an instructional tool
for teachers to further broaden their flexibility in adapting in-
structional styles to meet individual needs. Ideally, every teacher
should be able to adjust instructional styles for each student. Cer-
tainly, this ideal holds true for no one. Teacher instructional
flexibility operates within a range of adaptability commensurate

with how the teacher conceptually processes information. This type
of instrument can be used to broaden ranges of teacher adaptability.
Carefully planned seminar discussions about the instrument followed
by an in-depth analysis of class responses and structuring needs can
help to bring this about.

We believe that the instrument could also be used effectively
by universities and colleges. Results from such an instrument about
first year students could be helpful to freshman counselors in direc-
ting students to more optimum instructional choices. Department
Chairpersons could use results to more effectively assign students
to certain sections of courses being offered. Within departments
of education such an instrument could be used to more properly match
student teachers with classroom teachers. Most significantly, this
instrument can be used with students to help them better understand
their own instructional needs.

References

Bracht, G.H. Experimental factors related to aptitude treatment interaction. Review of Educational Research, 1970, 40, 627-645.raction.

Harvey, O.J. Belief systems and education: Some implications for change. In J. Crawford (Ed.), The Affective Domain. Washington, DC: Communication Service Corporation, 1970a.

Harvey, O.J. Belief and behaviors: Some implications for education. The Science Teacher, 1970b, 37, 1-6.

Harvey, O.J. This I Believe Test. Boulder, CO: University of Colorado, 1974a.

Harvey, O.J. The nature of belief systems. Unpublished manuscript. University of Colorado, 1974b.

Harvey, O.J. A study conducted for the Shoreham-Wading River School District, Long Island, New York. Report to School District, 1976.

Harvey, O.J., and Hoffmeister, J.K. Conceptual Systems Test. Boulder, CO: Test Analysis and Development Corporation, 1971.

Harvey, O.J., Hunt, D.E., & Schroder, H.M. Conceptual Systems and Personality rganization. New York: Wiley, 1961.

Harvey, O.J., Prather, M., White, B.J., & Hoffmeister, J.C. Teachers' beliefs, classroom atmosphere and student behavior. American Educational Research Journal, 1968, 5, 151-166.

Harvey, O.J., Wells, K., Schmidt, C., & Grimm, C. Effects of subject matter, the belief system and sex of teachers and students upon students' grade achievement and perception of teacher. Unpublished manuscript. University of Colorado, 1973.

Harvey, O.J., White, B.J., Prather, M., Atter, B.D., & Hoffmeister, J.C. Teachers' belief systems and preschool atmospheres. Journal of Educational Psychology, 1966, 57, 373-381.

Hunt, D.E. A conceptual level matching model for coordinating learner characteristics with educational approaches. _Interchange_, 1970, 1, 63-82.

Hunt, D.E. _Matching models in education: The coordination of teaching methods with student characteristics._ Toronto: Ontario Institute for Studies in Education, 1971.

Hunt, D.E. Learning style and teaching strategies. A paper presented at the meeting of the National Council for Social Studies, Boston, 1972.

Hunt, D.E. Teachers' adaption to students: From implicit to explicit matching. Monograph, Stanford Center for Research and Development, 1974.

Hunt, D.E. Person-environment interaction: A challenge found wanting before it was tried. _Review of Educational Research_, 1975, 45, 209-230.

Hunt, D.E., Greenwood, J., Noy, J., & Watson, N. _Paragraph Completion Method._ Toronto: Ontario Institute for Studies in Education, 1973.

Hunt, D.E., and Sullivan, E.V. _Between psychology and education._ Hindsdale, IL: Dryden Press, 1974.

Murphy, P.D., and Brown, M.M. Conceptual systems and teaching styles. _American Educational Research Journal_, 1970, 7, 529-540.

Prather, M., Harvey, O.J., & Coates, C. The effects of the belief systems of teachers and K-6 students on students' perception of teachers. Unpublished manuscript, University of Colorado, 1970.

Rogers, C. _Freedom to learn._ Columbus, OH: Merrill, 1969.

Spielberger, C.D., Edwards, C.D., Lushene, R.E., Montouri, J., & Platzek, D. _State-Trait Anxiety Inventory for Children._ Palo Alto: Consulting Psychologists Press, 1973.

Appendix A

Student Questionnaire

Name _____

This questionnaire is being sent to you in order to find out more information on how you learn best. The questionnaire is divided into four parts.

Part I: Each question is followed by two possible answers. Place a check "√" to the left of the answer that best describes you.

1. To which of the following types of classes do you most look forward to going?

____ a class where the teacher tells you how you are to do your work assignments

____ a class where the teacher lets you choose how you are to do your work assignments

2. Which do you prefer?

____ a teacher who lets you make some of the day to day decisions in class

____ a teacher who makes all of the day to day decisions in class for you

3. Which do you prefer?

____ to have your teacher give you problems to solve

____ to solve problems you have thought of yourself

4. Which do you prefer?

____ a teacher who carefully guides you through the solution to a problem

____ a teacher who gives you some information and lets you find the answers to a problem yourself

5. Which do you prefer?

____ a lecture by your teacher on a topic

____ a class discussion on a topic

6. Which do you prefer?

____ a classroom in which the students talk to each other about a class topic

____ a classroom in which the students talk to the teacher about a class topic

Part II: Each question is followed by two possible answers. Place a check "√" to the left of the answer that best describes you.

7. In which of the following types of classes do you learn best?

_____ a class where the teacher tells you how you are to do your work assignments

_____ a class where the teacher lets you choose how you are to do your work assignments

8. How would you learn best?

_____ from a teacher who lets you make some of the day to day decisions in class

_____ from a teacher who makes all of the day to day decisions in class for you

9. How would you learn best?

_____ from a teacher who gives you problems to solve

_____ from a teacher who lets you solve problems you have thought of yourself

10. How would you learn best?

_____ from a teacher who carefully guides you through the solution to a problem

_____ from a teacher who gives you some information and lets you find the answers to a problem yourself

11. How would you learn best?

_____ from a lecture by your teacher on a topic

_____ from a class discussion on a topic

12. How would you learn best?

_____ from a classroom in which the students talk to each other about a class topic

_____ from a classroom in which the students talk to the teacher about a class topic

Part III: Below is a list of situations that make some students worry in school. Beside each situation are four possible answers: ALMOST ALWAYS; OFTEN; SOMETIMES; ALMOST NEVER. Place a check "√" in the box to the right of each situation which best describes you fully.

	Almost Always	Often	Sometimes	Almost Never
1. I worry about completing my homework.	☐	☐	☐	☐
2. I worry about taking classroom tests.	☐	☐	☐	☐
3. I worry about working with other students.	☐	☐	☐	☐
4. I worry about having to answer a teacher's questions.	☐	☐	☐	☐
5. I worry about going to the dentist after school.	☐	☐	☐	☐
6. I worry about being called on to read orally in class.	☐	☐	☐	☐
7. I worry about having to take part in class discussions.	☐	☐	☐	☐
8. I worry about finishing class assignments on time.	☐	☐	☐	☐
9. I worry about not having the right answer to a teacher's question.	☐	☐	☐	☐
10. I worry about being bored in class.	☐	☐	☐	☐
11. I worry about getting good grades.	☐	☐	☐	☐
12. I worry when the principal wants to talk to me.	☐	☐	☐	☐
13. I worry about being liked by a teacher.	☐	☐	☐	☐
14. I worry about being liked by other students.	☐	☐	☐	☐
15. I worry about being corrected in class by a teacher.	☐	☐	☐	☐
16. I worry about being laughed at by other students.	☐	☐	☐	☐
17. I worry about making mistakes in school.	☐	☐	☐	☐

PART IV: Please answer the six questions below.

1. Do some teachers make you more nervous than other teachers?
   (circle one answer)

   yes   no

2. How do you usually feel in school? (circle one answer)

   very nervous   nervous   somewhat nervous   not nervous at all

3. Let us suppose that you are in a class with a teacher who makes
   you nervous.

   How does this affect your learning? (circle one answer)

   I learn more.   I learn less.   I learn about the same
                                                 as in other classes.

   How does this affect your feeling about school? (circle one answer)

   I feel better   I feel worse   I feel about the same
   about school.   about school.   as in other classes.

   How does this affect your feelings about yourself? (circle one answer)

   I feel better   I feel worse   I feel the same about
   about myself.   about myself.   myself as in other classes.

4. What things do your teachers do that make you feel nervous?

   _____

   _____

   _____

5. What things do your teachers do that make you feel relaxed?

   _____

   _____

   _____

6. Suppose you are in a class where the teacher presents material in a
   way you do not like.

   How much does this affect your learning of the material? (circle one)

   a great deal   a good amount   a little bit   not at all

   How does this situation make you feel? (circle one)

   very nervous   nervous   somewhat nervous   not nervous at all

26