

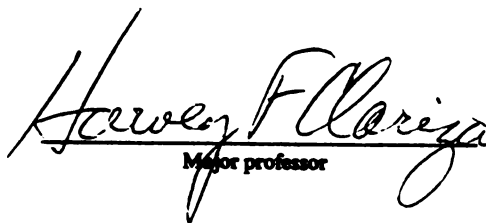
This is to certify that the
dissertation entitled
A PSYCHOLOGICAL STUDY
OF TEACHERS' AND SCHOOL PSYCHOLOGISTS' PERCEPTIONS
OF STUDENT REWARD PREFERENCES

presented by

Jim Charles Van Treese

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in School Psychology


Major professor

Date 2/12/82



RETURNING MATERIALS:
Place in book drop to
remove this checkout from
your record. FINES will
be charged if book is
returned after the date
stamped below.

FEB 16 2000

AUG 11 2000

A PSYCHOLOGICAL STUDY
OF TEACHERS' AND SCHOOL PSYCHOLOGISTS' PERCEPTIONS
OF STUDENT REWARD PREFERENCES

By
Jim Charles Van Treese

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling, Educational Psychology
and
Special Education

1982

ABSTRACT

A PSYCHOLOGICAL STUDY OF TEACHERS' AND SCHOOL PSYCHOLOGISTS' PERCEPTIONS OF STUDENT REWARD PREFERENCES

By

Jim Charles Van Treese

6/11/72
The study was designed to investigate female teachers', male school psychologists', and female school psychologists' perceptions of male school children's reward preferences by grade and behavioral characteristics of students.

The main purpose of the study was to investigate possible age-related changes in male school children's reward preferences.

The secondary purpose of the study was to compare the degree of congruence among the three groups of respondents' perceptions.

A typology for reinforcers called Categories of Teacher Controlled Positive Reinforcers (CTCPR) was validated. The CTCPR category names were: Concrete Edible Rewards; Concrete Non-Edible Rewards; Redeemable

Symbolic Rewards; Non-Redeemable Symbolic Rewards; Oral Communication Rewards; Written Communication Rewards; Close Body Communication Rewards; Distant Body Communication Rewards; Activity Rewards; Responsibility Rewards; Escape Rewards; and, Intrinsic Rewards.

A pair comparison reward preference scale was developed based on the CTCPR categories. The CTCPR pair comparison scale was presented to the three groups of respondents with grade levels (i.e., K, 3rd, 6th, and 9th) and student behavioral characteristics (i.e., average achievement, just barely passing achievement, overcontrolled behavior, and undercontrolled behavior) varied. The resultant category rankings were analyzed by multivariate analyses of variance for the omnibus hypotheses and by univariate analyses of variance to examine the variation of each category within each omnibus test.

The results were discussed in relation to previous research. Recommendations for future research were made.

DEDICATION

This dissertation is dedicated to my parents,
the soil and sun of my early life; and, to my wife and
children, the joy of my present and future.

ACKNOWLEDGMENTS

The author wishes to thank the members of the author's committee Dr. Harvey Clarizio, Dr. Andrew Porter, Dr. Walter Hapkiewicz, and Dr. Ellen Strommen for their help with the formulation and completion of this project. Each gave invaluable assistance.

The author wishes to credit doctoral candidate Gabriella Belli for her assistance with data analyses issues.

The author also wishes to thank the many teachers and school psychologists who served as respondents.

TABLE OF CONTENTS

List of Tables.....	viii
List of Figures.....	ix

CHAPTER

ONE: INTRODUCTION.....	1
Purpose of the Study.....	1
Statement of the Problem.....	2
Research Objectives.....	9
Potential Contributions.....	10
Chapter Summary.....	12
 TWO: REVIEW OF THE LITERATURE.....	13
Section one: Measurement Theory.....	13
Three Methods of Scaling Reward	
Preferences.....	14
The Problem of Scaling.....	14
The Pair Comparison Method.....	15
The Method of Rank Order.....	22
The Rational Zero Point Method.....	23
Example One: Researcher "A".....	25
Example Two: Researcher "B".....	26
Example Three: Researcher "C".....	27
The "Solution".....	30
Section Summary.....	31
Section Two: Categorization Scheme Develop-	
ment and Instrument Development.....	32
The PROS and its Predesessors.....	32
Reliability and Validity.....	37
Other Systems of Categorization.....	40

The Development of a New Categorization Scheme: Categories of Teacher Controlled Positive Reinforcers (CTCPR).....	41
The CTCPR's (In Preliminary Form) Validity.....	51
Reliability of the CTCPR Pair Comparison Scale.....	52
Section Three: Review of the Research on Age-Related Changes in Reward Preferences..	55
Ware's Research.....	55
Van Treese's Research.....	57
Chapter Summary.....	59
THREE: RESULTS.....	60
Section One: The Construct Validity of the CTCPR Categories.....	60
Section Two: Teachers' and School Psychologists' Perceptions of Student Reward Preferences.....	63
Design of the Study.....	63
Purposes of the Study.....	67
Hypotheses.....	67
Analysis.....	68
Respondents.....	69
Procedure.....	70
Rationale for Including School Psychologists as Respondents.....	71
Rationale for the Expansion of Grade Levels.....	71
Rationale for the Selection of the Control Variables.....	71
Rationale for the Selection of Student Characteristics.....	72

Results.....	73
Survey Return Rate.....	73
Reliability Data.....	74
Findings for Hypotheses.....	76
Chapter Summary.....	83
 FOUR: DISCUSSION.....	84
Age-Related Effects.....	84
Intrinsic Rewards.....	84
Concrete/Symbolic and Immediate/Delay	
Dimensions.....	85
Praise.....	87
Other CTCPR Categories.....	87
Type of Respondent and Student	
Characteristic Factors.....	88
Chapter Summary.....	92
 FIVE: CONCLUSIONS AND RECOMMENDATIONS.....	94
CTCPR Categorization Scheme.....	94
CTCPR Pair Comparison Scale.....	94
Age-Related Changes.....	95
Type of Respondent.....	97
Student Characteristic.....	97
Implication for Practice.....	98
Limitations and Recommendations for	
Future Research.....	99
Chapter Summary.....	101
 References.....	102
 Appendices	
A. Original PROS Pair Comparison Scale.....	107
B. PROS Pair Comparison Scale as Reworded	
for Adolescent Delinquents.....	112
C. CTCPR Category Validity Study.....	116

D. Rater Reliabilities of Reinforcers.....	128
E. Survey Forms.....	142

LIST OF TABLES

TABLE

1. Positive Reinforcement Observation Schedule (PROS): Definitions and Symbols.....	34
2. Categories of Teacher Controlled Positive Reinforcers -- Preliminary Form.....	44
3. Comparison of the CTCPR - Preliminary Form with other Categorization Schemes.....	48
4. Revised CTCPR Category Symbols and Definitions.	53
5. Validity Data on the CTCPR Categorization Scheme.....	62
6. Experimental Variables.....	64
7. Control Variables.....	64
8. Design of Study.....	66
9. Reliability Data "A".....	75
10. Reliability Data "B".....	75
11. Summary Table for Hypotheses.....	76

LIST OF FIGURES

FIGURE

1. Discriminal Dispersions of Ungrouped Reinforcers.....19
2. Discriminal Dispersions of Grouped Reinforcers.....20
3. Categories by Grade over Type of Respondent and over Student Characteristic.....78
4. Categories by Student Characteristic over Type of Respondent and over Grade.....80
5. Categories "A" and "R" Plotted by Type of Respondent by Student Characteristic over Grade.....82
6. Categories "WC", "DBC" & "A" Plotted by Student Characteristic over Type of Respondent and over Grade.....91

CHAPTER ONE

INTRODUCTION

This chapter begins with a brief statement of the purposes of the dissertation. The statement of the problem follows. The statement of the problem is carried out within the context of an overview of the literature. This chapter concludes with a statement of the research objectives and some of the study's potential contributions.

Purposes of the Study

The study is designed to investigate female teachers', male school psychologists', and female school psychologists' perceptions of male school children's reward preferences by grade and by behavioral characteristics of the students. This design allows the establishment of three independent indicators of possible age-related changes in male school children's reward preferences. The use of the phrase "age-related changes" is not intended to imply ontological changes. The latter point is discussed in Chapter Three.

The main purpose of the study is to investigate possible age-related changes in male school children's reward preferences. These possible changes will be inferred from the three groups of respondents (i.e., the female teachers, male school psychologists, and female school psychologists).

The secondary purpose of the study is to compare the degree of congruence among the three groups of respondents' perceptions to infer if they differ in their perceptions of the desirability of the specific types of rewards by grade levels and by student behavioral characteristics.

Statement of the Problem

The statement of the problem is carried out within the context of an overview of the literature. The literature on age-related changes in reward preferences pertinent to the main purpose of the dissertation is presented first. A brief mention of the research relevant to the secondary purpose follows.

Research on age-related changes in reward preferences is a relatively new research area which is generating several distinct, but complementary, lines of research.

One line of research has found evidence that reward preferences for specific reward objects may change with increased age, and that learning experiments which use

the same reward object over different age levels may be misinterpreting age-related changes in reward preference (i.e., incentive value) as developmental changes in learning ability (Haaf & Smith, 1976). This is an important line of research, but since the focus is on developmental trends in learning and not on age-related changes in reward preferences per se, it is not likely to illuminate general age-related trends in reward preferences.

A second line of research has been the study of age-related changes in reward preferences for reinforcers which vary on dimensions such as "immediate/delay" and "concrete/symbolic" (e.g., Harter, 1967; Harter & Zigler, 1974; Mischel & Mitzner, 1962; Nisan, 1974; Walls, 1973; Weisz, 1978). This line has generally established both delay in gratification and preference for symbolic rewards to be positively related to development. This important line of research has yet, however, to address possible age-related changes in preferences for commonly used categories of reinforcers like social, edible, token, and so on. A third line of research is moving in that direction.

The third line focuses on age-related changes in preferences for commonly used categories of reinforcers. A major conceptual and methodological problem in the third line concerns deficiencies in existing reward categorization systems. It is clear any research in the area of

age-related changes in in categories of reinforcers is limited by the adequacy of the categorization system which is employed. To the degree a particular categorization system fails to assign all members of particular population of reinforcers to relatively homogeneous categories in a reliable manner, any research based on it will be limited. Also, no nomological system can be evaluated apart from the purpose to which it is put. This, of course, is a specific reference to the general problem of developing any typology (Reynolds, 1971).

The third line of research has been primarily restricted to investigating adult perceptions of school children's preferences for various categories of rewards commonly administered in the school setting. Bersoff and Moyer (1973, 1976) developed a categorization system which has been used as the basis for the development of an instrument called the Positive Reinforcement Observation Schedule (PROS). The PROS has been used as an observation schedule and as a category preference scale (Bersoff & Moyer, 1973; Byalick & Bersoff, 1974; Dereven-sky & Rose, 1978). Bersoff and Moyer developed their categorization scheme in response to two shortcomings which they identified in similar categorization schemes. The similar categorization schemes either failed to include categories of nonverbal reinforcement (e.g., Amidon & Flanders, 1967; Brophy & Good, 1969) or were otherwise not inclusive enough to embrace all possible types of

reinforcement emissions in the schools (e.g., O'Leary & Becner, 1967). While Bersoff and Moyer's typology is a marked improvement over previous typologies, it suffers from at least three shortcomings:

1. Overlapping categories;
2. No empirical check to see if the typology can embrace all reinforcers in the specified population of reinforcers;
3. Some categories of "reinforcers" represent modeling or prompting antecedents and not consequence events.

These shortcomings, which are discussed in detail in Chapter Two, represent fundamental conceptual flaws in the typology. These flaws express themselves in the instruments developed from this categorization scheme (the PROS observation schedule and the PROS pair comparison scale). This seriously limits the interpretability of any research which employs Bersoff and Moyer's typology or the instruments developed from it. Because of these problems, Van Treese (1980) began development of a categorization scheme for reinforcers used in the schools. This categorization system was intended to embrace all teacher controlled positive reinforcers recommended by authorities in the field for use in the schools (both regular and special education). This system, which is referred to as Categories of Teacher Controlled Positive Reinforcers (CTCPR), was evaluated both logically and

empirically.

The logical analysis consisted of a comparison of the CTCPR with existing categorization schemes for reinforcers. It was concluded the initial work indicated the CTCPR was comprehensive in its ability to embrace all components of the other categorization schemes with the limitation that categories referring to non-teacher controlled reinforcers (e.g., peer reinforcement) and negative consequating events were excluded. It was further concluded the CTCPR's subdivisions were sufficient to allow reasonable homogeneity within specific categories (Van Treese, 1980). The logical analysis was followed by an empirical analysis.

The empirical analysis consisted of having experts assign a specified population of reinforcers to specific CTCPR categories. Rater reliabilities were computed for each item (i.e., the raters' agreement on a specific reinforcer's assigned category or categories). Rater reliability was found acceptably high. This provided initial evidence of the CTCPR categories' construct validity (Van Treese, 1980).

Subsequently, the CTCPR categories were used as the basis for a pair comparison scale. This scale was used to assess teacher perceptions of reward preferences of kindergarten, 3rd, and 6th graders by sex and achievement. The reliability study on the CTCPR pair comparison scale and the results of the preference study are

summarized in Chapter Two. The results indicated tentative support for the CTCPR pair comparison scale's reliability and its sensitivity to age-related changes in children's reward preferences as inferred from teachers' perceptions.

Thus far in this section, the research context in which the study is embedded has been reviewed in relation to the main purpose of the dissertation (which is to investigate possible age-related changes in male school children's reward preferences). Next, the research context for the secondary purpose is reviewed.

The secondary purpose is to compare the degree of congruence among the three groups of respondents' perceptions to infer if they differ in their perceptions of the social appropriateness or utility of the CTCPR categories. The principle comparison of interest is the school psychologists' (both male and female) perceptions with the teachers' perceptions. Three levels of student behavioral characteristics which are instances where school psychologists might, as part of an intervention plan, recommend the use of a particular type of reinforcer for the teacher to employ in the classroom are included. They are included to make the comparisons more applicable to the practice of school psychology.

A fourth level of student behavioral characteristics represents a "no problem" condition. The "no problem" condition is included to obtain an indication of

"normal" children's reward preferences.

Kazdin (1980) makes the point that in cases where several effective options for intervention are available, the acceptability (to the implementor or to the recipient) of the different types of interventions should be considered when choosing the type of intervention to use. Kazdin also reported research which indicated the acceptability of different interventions may vary with the particular presenting problem. The secondary purpose of the dissertation is to assess if there is any difference in the acceptability of the various CTCPR categories of rewards; and, whether the teachers (as implementors) see the various CTCPR categories' acceptability differently from the school psychologists (typically the recommenders or consultants). The study is related to Kazdin's (1980) effort to add to the knowledge of the social acceptability of intervention techniques, albeit in a restricted sense.

The research objectives are stated in general form next. The order of presentation is based upon the chronology of the research steps. The first two relate to category development and the instrument development. The remaining three objectives are directed toward the two main purposes of the dissertation previously stated.

Research Objectives

1. The study can be conceptualized in five major parts. The first part concerns a further empirical check of the construct validity of the CTCPR categories. Following the initial work (Van Treese, 1980), slight changes in the wording of some categories and the consolidation of two related categories were done. These changes require a follow-up study to assess the possible changes in construct validity. That is the first research objective.

2. The second research objective concerns obtaining additional reliability estimates of the CTCPR pair comparison scale.

3. The third research objective concerns the extension of Van Treese's (1980) initial study of teacher perceptions of reward preferences of K, 3rd, and 6th graders by sex and by achievement. One additional level of grade, the 9th, is included. Specified student behavioral characteristics are also entered into the experimental design. Sex of student is fixed at male. The sampling of teachers is improved.

4. The fourth research objective concerns obtaining equivalent data to that of the third research objective, but with the respondents being male and female school psychologists. This data provides two additional bases from which children's reward preferences can be inferred.

5. The fifth research objective concerns the comparison and the contrasting of the perceptions of the three groups of respondents.

Potential Contributions

The study has merit because it has the potential to make important contributions to both basic and applied research in the area.

The refinement of the CTCPR categorization system (research objective one) not only provides the basis for the CTCPR preference scale, it may provide the basis for an observation schedule (i.e., a method of coding observed reinforcement emissions by teacher or reinforcement selections by students). Bersoff and Moyer's work (1973, 1976) demonstrates how this can be done from a similar categorization scheme. Observational research conducted in naturalistic settings could be used as a check to see if teachers accurately report which rewards they, for example, believe are most effective with the actuality of which ones they use in their classrooms. The observation schedule could also be used to establish base rates for the types of rewards which are used in classrooms. That would address, for example, issues such as whether or not the rate of teacher reinforcement emissions is high enough to promote learning or whether or not teachers tend to rely primarily on a given category.

The study is also designed to further basic research on age-related changes in children's reward preferences by providing three independent indirect measures of these. Furthermore, there is evidence (Van Treeese, 1980) that by including additional student variables not controlled in previous studies, interpretation of the results will be less affected by problems of internal validity.

The study is also designed to further applied research. For example, data concerning teachers' perceptions of children's reward preferences could be discussed in classes for teachers in training. This data would also be of interest to school psychologists who often make recommendations to teachers concerning the use of incentives to help motivate children. Data concerning school psychologists' perceptions of children's reward preferences will be available to compare with teachers' perceptions. If great differences exist, insight might be gained on one possible reason that school psychologists' recommendations go unheeded in some cases.

Some of the study's potential contributions to basic and applied research have just been reviewed. This study does not, however, provide direct measures of children's reward preferences. While this would be a most interesting aspect to investigate, restrictions in resources (e.g., both time and money) make it necessary to defer work on this issue. In the review of the literature, the complexities of obtaining direct measures of

children's reward preferences are discussed to further justify this omission.

Chapter Summary

In this chapter, the purposes of the dissertation were stated. The statement of the problem was carried out within the context of an overview of the literature. The research objectives were stated in general form. The chapter concluded with a review of some of the potential contributions to both basic and applied research.

The next chapter is the review of the literature.

CHAPTER TWO

REVIEW OF THE LITERATURE

This chapter is divided into three major sections. In the first section, the relevant measurement theory is reviewed. In the second section, the literature relating to categorization scheme development and instrument development is reviewed. In the last section, the research on age-related changes in reward preferences is reviewed.

SECTION ONE: MEASUREMENT THEORY

In this section on measurement theory, the problem of establishing expressed preferences for various reinforcers is introduced. Why the solution to the problem varies with the purposes of the investigator is discussed. Finally, the solution appropriate to this dissertation is presented.

THREE METHODS OF SCALING REWARD PREFERENCES

The Problem of Scaling

The purpose of this portion is to introduce the problem of establishing preferences for various reinforcers. This problem is complex in that its solution varies with and depends upon:

1. The population of children of interest;
2. Whether the children are directly assessed or whether adult perceptions of children's preferences are assessed;
3. The population of reinforcers under considerations ($N=2$ is the simplest case);
4. Whether or not a heterogeneous set of reinforcers is grouped into homogeneous categories when N is large;
5. Whether an idiographic or nomothetic approach is taken.

This dissertation focuses on school children in the K, 3rd, 6th, and the 9th grades (#1). Adult (i.e., teachers' and school psychologists') perceptions of children's reward preferences are assessed (#2). The population of reinforcers recommended for teacher use in the schools is considered (#3). Homogeneous categories are appropriate to this dissertation's purposes (#4). Finally, a nomothetic approach is taken (#5). With these points in mind, the problem of scaling either individual

reinforcers or categories of reinforcers will be addressed. How this problem should or might be addressed assumes a basic knowledge of three statistical methods of obtaining and scaling reward preferences. Therefore, this section begins with a survey of the pair comparison method, the rank order method and the rational zero point method. Later, three examples which illustrate the appropriate use of each of these methods are discussed and the method most appropriate for this study is presented.

The Pair Comparison Method

In 1927, Thurstone (Thurstone, 1927a; 1927b) developed the theoretical rationale and the statistical procedures for the Law of Comparative Judgment which is the basis for this method. The writer will not recapitulate its development nor repeat its mathematical derivation. Excellent sources exist for the interested reader (Guilford, 1954; Thurstone, 1927a & 1927b). However, the central concepts are reviewed.

In the method of pair comparisons, all stimuli (S_i 's) are typically presented to an observer (Q) in all possible pairs of non-identical S_i 's. This results in $N(N-1)/2$ pairs and requires that the Q pick one S_i in each pair over the other one in the pair. The Q compares one to another and judges which is "better" or "has more" of some defined quality or quantity. The same Q may judge all pairs a large number of times on different

occasions or many similar O's may judge all pairs only once. In both cases, the individual O or group of O's, there exists variation in how the pairs will be judged. The reason for this variation is a central concept to the Law of Comparative Judgement. It is called discriminal dispersion and is discussed next.

Thurstone (1927a) developed the concept of discriminal dispersion via the following four propositions:

1. A series of stimuli $S_1, S_2, S_3 \dots S_n$ can be arranged in a continuum, with reference to any prescribed quantitative or qualitative stimulus attribute.
2. These stimuli are differentiated by process of the organism of unknown nature, and they are designated $R_1, R_2, R_3 \dots R_n$ respectively. Every stimulus S_i is identified by the organism with the process R_i . These processes may be either psychic or physiological or both. In this discussion, they are referred to as the discriminal processes or qualities.
3. When the discriminal processes $R_1 \dots R_n$ are considered in the same serial order as the corresponding stimulus series, they constitute what may be called the discriminal continuum or the psychological continuum. This continuum is the correlate of the already postulated stimulus continuum.
4. It is assumed that the corresponding $S_n \text{ -- } R_n$ is subject to noticeable fluctuation, so that S_n does not always produce the exact process R_n but sometimes nearly similar processes R_{n+1} or R_{n-1} and sometimes even R_{n+2} or R_{n-2} . It goes without saying that the numerical subscripts

are here used to denote qualitative similarity and that no quantitative attributes are thereby necessarily injected into the discriminational processes. This fluctuation among the discriminational processes for a uniform repeated stimulus will be designated the discriminational dispersion. (p. 22)

Simply put, discriminational dispersion refers to the variation in judging, say, the weight of a two pound bar. Each judged weight is an R_i . The R_i 's are expected to disperse around the actual value of the S_i in question with fewer R_i 's as one moves away from the actual value of the S_i .

In judging a pair of S_i 's, both of the S_i 's respective discriminational dispersions must be considered. For example, if the discriminational dispersions of S_1 and S_2 do not overlap, the judgment between the two will be consistent. However, as the overlap between the discriminational dispersions increases, the judgement between the two becomes less consistent. In the extreme case of complete overlap, there is no consistency of judgment.

Many times in psychology, the actual value of the S_i is not known. It is necessary to "go in reverse" and estimate each S_i from the R_i 's which each S_i elicits. Of course, the mean value of the R_i 's elicited by a given S_i equals the actual value of the S_i with certainty only when an infinity of R_i 's are elicited and averaged for it. One must be aware the estimation of a given S_i can

vary greatly from its actual value when a more modest number of R_i 's are elicited and averaged.

The last point is critical to the understanding of why a set of heterogeneous reinforcers might be grouped into homogeneous categories in some cases. Consider Figure 1 which displays four S_i 's each with its own discrimininal dispersion.

Given this hypothetical example, it can be seen that S_5 and S_8 will be ordered consistently, since there is no overlap between their respective discrimininal dispersions. That is, even if their estimated true values are considerably off (due to few observations), S_8 will always be preferred over S_5 . This is also true for the pairs S_5 and S_7 , S_6 and S_7 , and S_6 and S_8 . However, because of the overlapping discrimininal dispersions, the pairs S_5 and S_6 , and S_7 and S_8 cannot be reliably ordered from a modest number of R_i 's or observations on each. Assuming the discrimininal distributions are fixed, the only way to reliably order S_5 and S_6 , and S_7 and S_8 is to greatly increase the number of R_i 's or observations on each. This solution has obvious drawbacks. Fortunately, a second solution exists and is especially applicable to the present purposes.

Figure 2 displays an example in which the S_i 's are grouped into two categories. S_5 and S_6 have been placed in one category. S_7 and S_8 have been placed in another. If all of the S_i 's represented individual reinforcers;

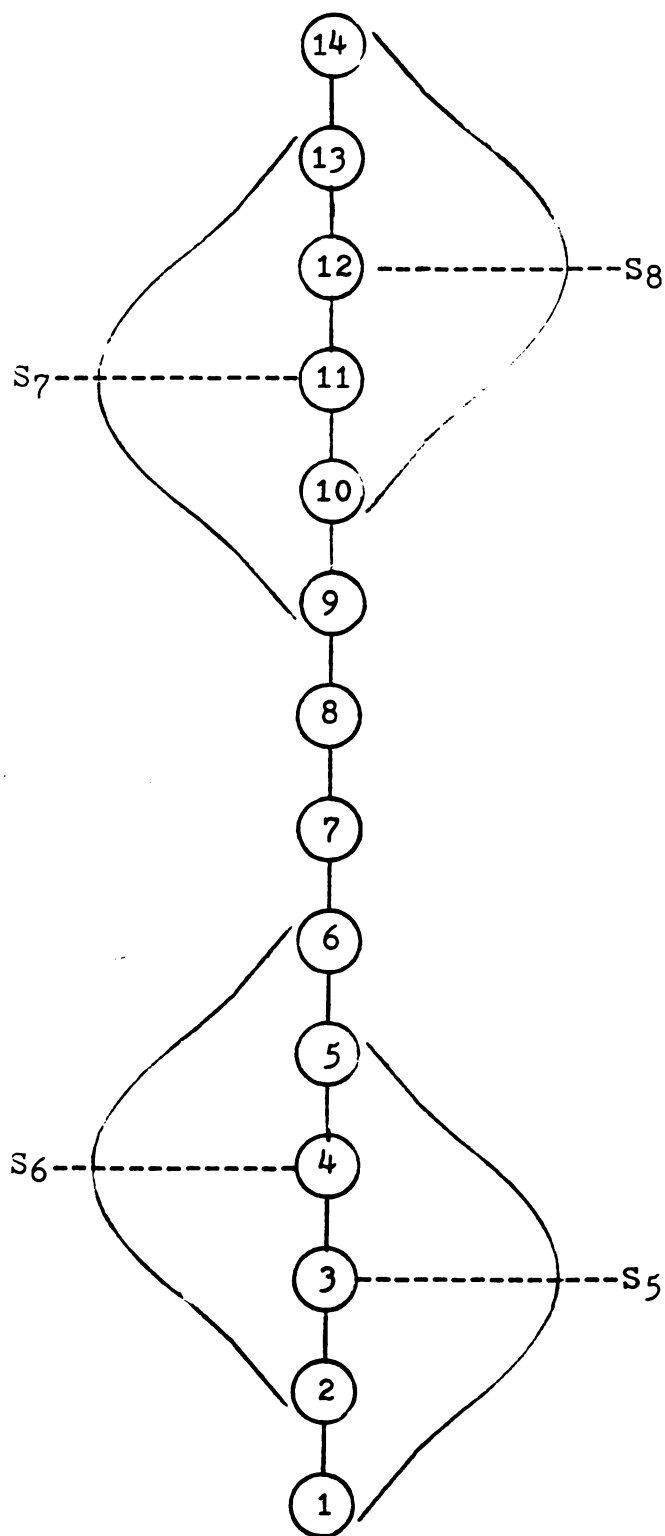
R_i 's

Figure 1. Discriminal Dispersions of Ungrouped Reinforcers

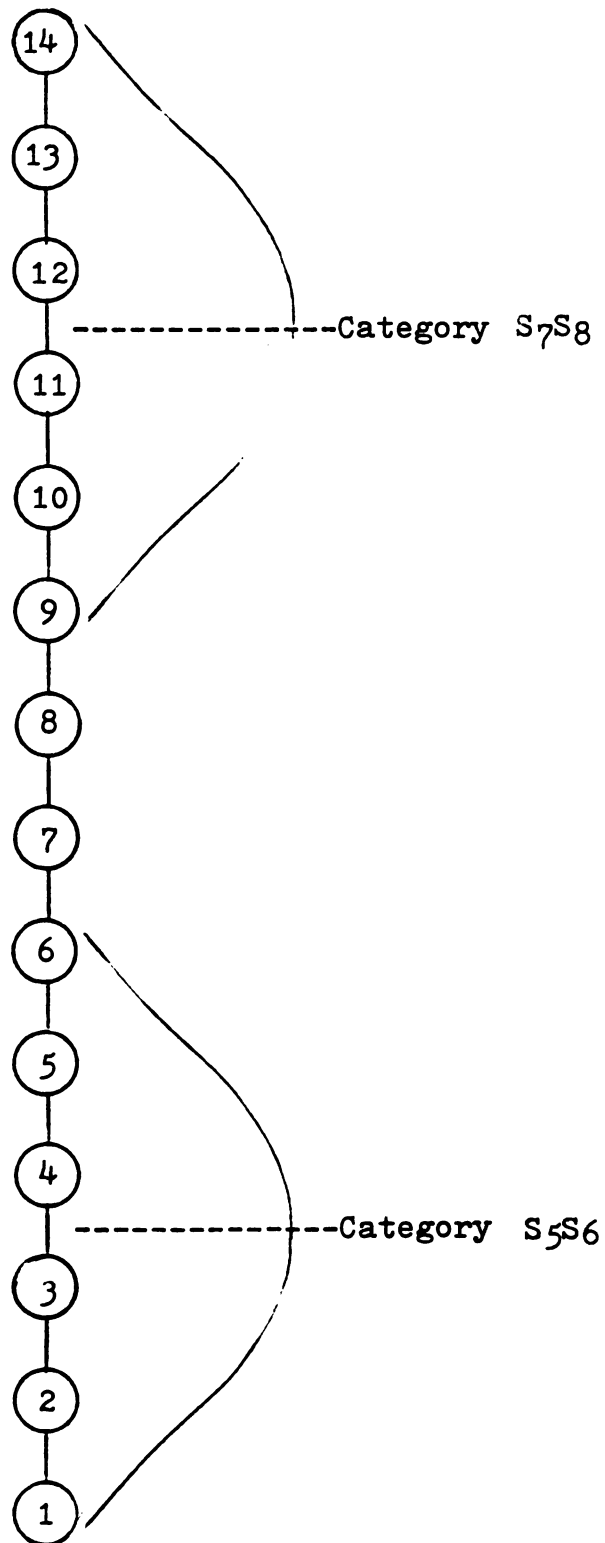
R_i 's

Figure 2. Discriminal Dispersions of Grouped Reinforcers

and if, specifically, S_5 represented candy, S_6 represented a fruit, S_7 represented a "pat on the back", and S_8 represented an embrace, the two categories might be called: 1) concrete edible rewards; and, 2) close body communication rewards. Forming homogeneous categories may improve the ability to obtain reliable ordering from a limited number of R_i 's or observations (now taken on the categories and not on the individual S_i 's). What is not as clear from this example is that when the number of individual reinforcers is vary large (e.g., over 100), the forming of homogeneous categories lends considerable conceptual clarity to the picture. Also, the pair comparison method applied to the 100 S_i 's requires (typically) 4950 pair comparisons $[N(N-1)/2]$. However, if the same 100 reinforcers could be divided into 10 homogeneous categories, the number of pair comparisons needed (between categories) drops to 45. Clearly, such categorization has desirability in some instances. However, because the ability to discriminate within a category is lost and because some intracategoy variance exists, it is not always desirable as will be seen later.

As should be clear by now, the ability to reliably order S_i 's depends on the "distance" between them and the variance of their respective discriminial distribution. As the overlap increases, the ordering becomes increasingly unreliable given the same number of R_i 's on each S_i .

One desirable property of the pair comparison method is that it yields an interval scale (Guilford, 1954). The chief objection to the method is the number of pair comparisons needed in the usual case. Guilford (1954) suggests that when S_n is greater than or equal to 16 the number of pair comparisons makes data collection difficult. While some variations exist which allow a reduction of the number of pairs (Guilford, 1954), they are not widely applicable and result in poorer estimates of the S_i 's.

The Method of Rank Order

The method of rank order requires, in its simplest case, than an Q order a set of S_i 's that are presented to the Q simultaneously. It is preferred to the pair comparison method in some cases because it is easier to rank, for example 14 S_i 's than to do 91 separate pair comparisons. It bears a fundamental relationship to the pair comparison method. In the simplest case, each S_i is, in principle, compared to all others. Also, S_i 's that have been ranked by a number of individuals (a slightly more complex case) can yield a "pooled" rank order which can result in interval scale properties. Furthermore, these "pooled" ranks can be used to approximate the pair comparison method. The interested reader is referred to Guilford (1954) for a detailed proof of these points and a discussion of modifications of the

rank order method.

Even though there exists a fundamental relationship between the rank order method and the pair comparison method, the differences are important. While it may be easier to rank order, for example, 14 S_i 's than to do 91 pair comparisons, the pair comparison procedure might be preferred. For example, if a six year old child is asked to rank order 14 S_i 's, considerable unreliability may result because of the child's attentional and cognitive limitations. In short, the child might not compare each S_i with all others as the rank order method assumes. Therefore, it seems preferable to "force" the child to do that by presenting the S_i 's via the pair comparison format. Generally speaking, the context in which one of the two methods is to be applied is probably the best basis of choice between them.

The Rational Zero Point Method

The rational zero point method is an elaboration of the pair comparison method which allows for the establishment of a rational zero point on preference scales. Horst (1932) initially formulated a rational zero point method, but he required that one list psychological variables of positive and negative values. This is often difficult and awkward in some contexts (e.g., if all variables are "good" it is awkward to assign some a negative value) (Thurstone & Jones, 1957).

Thurstone and Jones (1957) have developed a method of listing S_i 's which allows all to have positive values. Conceptually, it is rather simple. The following example illuminates the basic points. Via the pair comparison method, objects S_1 , S_2 , and each sum of pairs of S_i (i.e., S_1+S_2 , S_1+S_3 , S_2+S_3) are treated as separate stimuli and scale values for each are obtained. That is, each S_i is compared with every other S_i and every other combination of S_i . The O's are asked to express preferences for each pair of stimuli such as S_1 and S_2 and they are asked to express their preferences for such choices as S_1 and S_1+S_2 . The rational zero point is chosen so that the distance from the origin to S_1+S_2 is the sum of the distances from the origin to S_1 and S_2 . Every combination of S_i determines the zero point in this manner. This assumes the anticipated satisfaction for the combination of two S_i 's (e.g., S_1+S_2) is the sum of the anticipated satisfactions of owning each separate S_i in a given combination. It should be noted that linearity is not assumed for composites of more than three S_i 's and that one S_i cannot substitute for another S_i . At any rate, through the assumption of additivity, several estimates of the rational zero point can be gotten. To the extent that these various estimates of the zero point agree, the assumption of additivity is supported. The rational zero point is the average of these estimates. That, simply put, is how the rational zero point is

established conceptually. The mathematics are reported in Thurstone and Jones (1957) and are not repeated here.

Being an extension of the pair comparison method, the rational zero point method shares the pair comparison's vices and virtues (which were noted earlier). However, the rational zero point method has one virtue that the pair comparison method lacks, namely, it is a ratio scale. Therefore, it allows statements that one S_i is twice as valuable subjectively as another S_i . An application of this virtue is discussed later. Unfortunately, the rational zero point method also exaggerates a vice of the pair comparison method. Remember, the pair comparison method requires $N(N-1)/2$ separate pair comparisons. The rational zero point method increases this greatly. For example, when $S_N=5$ the number of pair comparisons increases from 10 to 55.

In the following examples, three applications of the scaling methods are considered.

Example One: Researcher "A"

Researcher "A" wishes to equate reward value in his experimental groups to control motivational incentives in a learning task. In order to insure that any differences in learning among the groups of, say, K, 3rd, 6th, and 9th graders are not wholly or partly due to changes in the "preference" for the reward used, it is necessary to insure that the reward objects used are

equally preferred by the children in the different grades. In order to obtain absolute preference values, it is necessary to establish a ratio scale of measurement. Of the three scaling methods reviewed in this paper, the rational zero point method is the only applicable one. This example was adapted from a study by Haaf and Smith (1976)

Example Two: Researcher "B"

Researcher "B" wishes to explore teacher perceptions of possible age-related trends in preferences for the general set of reinforcers available in the schools. In this case, it is appropriate to employ some system of categorization to reduce the task of addressing hundreds of individual reinforcers to the more manageable task of addressing a fewer number of relatively homogeneous categories.

Once researcher "B" has established ten or so categories of reinforcers, the categories can be ordered by teachers via the pair comparison method with references to specific grade levels. The rank order method is not used in this case because some teachers might not compare each category with all others (as is implied in the method) because of the complexity of the task (Dunn-Rankin, 1965). This could result in considerable unreliability. This possibility is avoided when the pair comparison method is used. The rational zero point

is not used since placing absolute values on the categories is not necessary for Researcher "B's" purpose. Therefore, the additional work and expense needed to obtain the great many more pair comparisons required by the rational zero point method over the pair comparison method cannot be justified.

Example Three: Researcher "C"

Researcher "C" wishes to check teachers' perceptions of children's reward preferences against the "criterion" of the children's actual expressed reward preferences. This allows the investigation of age-related trends of expressed reward preferences and teachers' (or others) sensitivity to these possible changes. Like Researcher "B", Researcher "C" has decided to use the pair comparison method and would like to use categories but he is faced with the problem of assessing young children who cannot comprehend complex abstract categories. However, if he could sort the population of teacher controlled reinforcer into categories, he could ask the children to compare specific concrete exemplars of the categories. This would reduce the number of comparisons needed and lend cognitive clarity by being able to extrapolate from the specific reinforcers to the categories.

However, when one exemplar is chosen to represent an abstract category:

1. Its preference must equal the average preference of all reinforcers in the category it is intended to exemplify.
2. The preference of the exemplar must change over combinations of child variables in the manner the category as a whole changes in preference over combinations of child variables.

Consider the first stipulation. It requires that the preferences of all reinforcers be determined so that the average preference can be computed. From what has been reviewed concerning the problem of scaling reward preferences, it is clear that the task of establishing reward preferences (either subjectively or by developing a situation where real reinforcers can be chosen by children) for all reinforcers in a category where the number of specific rewards is large (e.g., over 100) would require a great number of subjects. For example, if a category with 100 reinforcers is assumed, there are 4950 pair comparisons to make. This would require a partial set of 4950 comparisons to be administered to each subject. Fifty subjects would be required to obtain one complete ranking if each subject were administered a set of 99 comparisons. This must be multiplied by about 50 to get a reasonable estimate for one category and then multiplied again by the number of categories. In this

example, the total number of subjects would be 25,000 given 10 categories.

Consider the second stipulation. Once the exemplar of average preference for each category has been determined for a particular combination of child variables (e.g., grade level, sex), it must be determined that the selected exemplar's preferability changes across the other combinations in a manner representative of the way the category as a whole changes over types of children. If no one specific reinforcer meets that requirement, then more than one reinforcer would best exemplify the category depending on which type of child was being considered. If the same exemplar was not the most appropriate for all combinations of child variables and yet only one exemplar was used, then the variance attributed to changes in preference between categories (inferred from experiments using concrete exemplars of abstract categories) would be confounded with within category changes in preferences for specific reinforcers over types of children. Because there is no reason to assume that such within category variance does not exist, (Half & Smith, 1976), even more subjects would be required. For example, if three grade levels and two sexes were considered, the number of subjects need would increase from 25,000 (continuing from the previous paragraph) to 200,000.

It is clear that what might appear to be a simple task is quite complicated. The researcher is faced with selecting one of two subjective measures of children's reward preferences (both adult perceptions and the children's perceptions are subjective), or opting to do a naturalistic study where children select actual reinforcers (the latter is the "ultimate" criterion). The difficulties just discussed relating to assessing children's subjective preferences also hold for naturalistic studies. In addition, naturalistic studies entail additional costs and logistical problems. The only practical choice is inferring children's reward preferences from adult respondents. Furthermore, it is not unreasonable to expect adult perceptions to be valid indicators of children's reward preferences providing: care is taken to assess adults who have observed children at the age level and in the physical setting to which inferences are made; and, care is taken to obtain a sample of adults large and properly gathered so bias is not expected.

The "Solution"

Both researchers "B" and "C" would be building on the third line of research discussed in Chapter One. In both cases the pair comparison method is preferred and a categorization scheme for reinforcers is needed. While this dissertation is designed to be similar to Researcher

"B's" study, it would be desirable for the categorization scheme used be adaptable to Researcher "C's" purposes in-case the difficulties with doing such a study could be partially overcome (e.g., it might be possible to complement a study of adult perceptions by adding a much narrower study of children's perceptions).

Section Summary

In this section, measurement theory as it related to the problem of scaling reward preferences was reviewed. It was concluded that the pair comparison method is the most applicable scaling method for the purposes of this dissertation. It was argued that it was not unreasonable to infer children's reward preferences from adult perceptions providing some cautions were taken. The need to either discover or develop a categorization scheme for the set of reinforcers used in the schools was identified.

SECTION TWO: CATEGORIZATION SCHEME DEVELOPMENT AND INSTRUMENT DEVELOPMENT

The existing categorization schemes for positive reinforcers and the need for the development of an improved categorization scheme are presented in this section. The development of the Categories of Teacher Controlled Positive Reinforcers (CTCPR) and the development of a pair comparison scale based on it are also presented in this section.

The PROS and its Predecessors

As noted in Chapter One, one line of research has been primarily restricted to investigating adult perceptions of school children's reward preferences for various categories of rewards commonly administered in the school setting. Bersoff and Moyer (1973, 1976) developed a categorization system which is the basis for an observation schedule and a pair comparison scale (Bersoff & Moyer, 1973; Byalick and Bersoff, 1974; Dervensky & Rose, 1978). Bersoff and Moyer developed their categories in response to two shortcomings which they identified in earlier categorization schemes which were used as the bases for scales. These earlier categorization schemes

either failed to include categories of nonverbal reinforcement (e.g., Amidon & Flanders, 1967; Brophy & Good, 1969) or were otherwise not inclusive enough to embrace all possible types of reinforcement emissions in the schools (e.g., O'Leary & Becher, 1967). Because of the inadequacies of the pre-PROS categorization schemes which have been used as the bases for scales, the present discussion and criticism focuses on the PROS and the pair comparison scale developed from it.

The categories of the PROS, their symbols and their definitions are found in Table 1. The 14 categories, when used as a preference scale, are presented to the respondents in a pair comparison format (Edwards, 1957) with each category being compared to each other. The original pair comparison scale and as reworded for adolescent delinquents are found in Appendices "A" and "B" respectively. While the PROS categories are an improvement over previous typologies, it has at least three shortcomings:

1. Overlapping categories;
2. No empirical check to see if the PROS categories embrace all reinforcers in the specified population of reinforcers;
3. Some PROS categories of "reinforcers" represent modeling or prompting antecedents and not consequating events.

TABLE 1. Positive Reinforcement Observation Schedule (PROS): Definitions and Symbols

POSITIVE CATEGORIES

CRD Administration of Concrete Rewards (Direct): Giving of direct concrete rewards such as candy, money, or free time. This category also consists of those instances when the teacher/tester gives concrete but symbolic rewards (such as giving flashcards to a child contingent upon correct answer to that card) which have no backup or other value.

CRT Administration of Concrete Rewards (Token): Giving of symbolic rewards which will be redeemed for direct concrete rewards at some future time. Common examples are poker chips, tallies, colored sticks, stars, stickers, etc.

AAB Affirmation of Appropriate Behavior: Verbal contact indicating approval, commendation to a child that his responses are correct or acceptable, or that his behavior is appropriate. Verbal affirmation may either be loud or soft, and consists of such examples as "That's good," "Fine," "You're studying well." Adapted from Brophy & Good, 1969; O'Leary & Becker, 1967).

RP Rapport-Praise: Evaluative reactions which go beyond the teacher/tester's level of simple affirmation or positive feedback by verbally complimenting the child. RP communicates a positive evaluation or a warm personal reaction to the child and not merely an impersonal communication. Teacher/tester responses are considered RP if the verbal content (Yes, Umhumm, Fine, Good) or nonverbal content (headnod) is accompanied by nonverbal communication of warmth, joy, or excitement. (Adapted from Brophy & Good, 1969.)

FA+ Positive Facial Attention: Looking at a child when teacher/tester is smiling or attending to what the child is doing or what the child is saying. Teacher/tester might nod head, wink, or give other indication of approval while smiling. Contingent looking or attending to a child also belongs in this category but a five-second interval must elapse between one attend episode and another for this category to be scored again. (Adapted from O'Leary & Becker, 1967.)

TABLE 1 (cont'd)

PC+ Positive Physical Contact: Actual physical contact such as patting, embracing, holding arm, taking hand, etc. as a sign of approval. (Adapted from O'Leary & Becker, 1967.)

AF Accepts Feelings: Teacher/tester accepts and clarifies the feeling tone of the child in a nonthreatening manner. Feelings or student emotions may be positive or negative. Predicting or recalling feelings is included. The teacher/tester accepts feelings when he says he understands how the child feels, that he has a right to these feelings, and that he will not punish the child for his feelings. (Adapted from Amidon & Flanders, 1967.)

AI Accepts Ideas: Clarifying, building, or developing ideas suggested by the child. Teacher/tester may paraphrase the student's statement, restate the idea more simply, or summarize what the student has said. The key teacher/tester behaviors are clarifying and developing ideas. Simple restatement without building such as when teacher/tester verbalizes student answer during recording on chalkboard or test booklet is not scored. (Adapted from Amidon & Flanders, 1967.)

AM Adjuvant Mastery: Urging, prompting, fostering, promoting confidence and success, providing encouragement for response production. When the child refuses to answer, the teacher/tester may suggest guessing, give encouragement ("You just got the last one"), or systematically employ a graded series of suggestions.

AE Aiding by Example: Demonstration of appropriate behavior by teacher/tester when the child is either nonresponsive or incorrect in exhibit expected response.

NEUTRAL CATEGORIES

AQ Asks Questions: Asking questions by teacher/tester following student behavior concerning that behavior. In this category neither positive nor negative evaluation of the child is present in the question.

NVR Non-Germane Verbal Response: A response by teacher/tester which is neither criticism nor affirmation of behavior initiated by the child.

TABLE 1 (cont'd)

NEGATIVE CATEGORIES

A- Admonishment: Verbal response by teacher/tester indicating to a child that his responses are incorrect, unacceptable, or inappropriate, such as "No," "You're being bad," "That's wrong."

FA- Negative Facial Attention: Nonverbal response by teacher/tester indicating to child that his responses are incorrect, unacceptable, or inappropriate, such as frowning, grimacing, shaking head, pointing finger.

Table 1 has been taken from Bersoff & Moyer, 1976 pages 243-244.

Reliability and Validity

In 1973, Bersoff and Moyer reported the following evidence of the PROS's reliability and validity:

To establish external verification that others judge PROS events to be reinforcers, two categories considered to be "neutral" and two considered to be "negative" were added to the scale. The 14 categories were constructed in a paired comparisons format and administered to 157 Ss. Scale weights and rankings were derived for each category. The test of validity assumed that if the 10 original categories were judged to be PRs, they would be ranked 1-10, the neutral stimuli would be ranked 11-12, and the negative stimuli ranked 13-14. In the directions there was no indication that some categories were considered positive, neutral, or negative. Following a technique devised by Dunn-Rankin (1965), scale weights and rankings were determined for all 14 categories. The results indicated reasonable support for the scale's validity. All 10 of the presumptive PR categories were judged to be potentially reinforcing. It can be expected that specific scale weights and rankings of the PR categories will change with repeated validation studies. The precise weightings and rankings depend on the nature of the judges and the target group about whom the judges are making reinforcement preferences. The measure of the scale's validity lies in the proposition that under procedures similar in intent to the original, the PR categories presently ranked 1-10 will again be so ranked, although in possibly different order.

To establish stability of preference, the PROS was administered to a sample of 38 Ss and then readministered 15 days later. Two procedures were chosen to measure the reliability: (a) the percent of agreement among the pairs from first to second administration was calculated for each S and (b) the rank-order correlation between first and second administrations was calculated for each S. Mean percent agreement was 82.33 (range 70-96); rho was .88 (range .61 to .99). (p. 711)

It should be noted that the Ss on which these validity and reliability estimates were obtained were adults. It is possible that these estimates would become increasingly attenuated in younger target populations. Some modifications, such as lowering the reading level of the instrument and/or

orally administering the instrument, might help maintain reasonable reliabilities and validities. However, it seems that the basic requirement of the schedule, in its present form, which requires the ability to compare two abstract categories, might be beyond the grasp of children below the stage of Formal Operations. If this is true, it would set a "floor" below which simple rewording or administrative modifications would not produce any helpful results.

The first shortcoming listed above concerned overlapping categories. This becomes apparent when one examines the definitions for the categories Rapport-Praise (RP), Affirmation of Appropriate Behavior (AAB), and Positive Facial Attention (FA+). AAB is defined as verbal contact indicating approval. FA+ is defined as a nonverbal expression of approval. The problem of overlap arises when one sees that RP is defined, indirectly, as AAB plus FA+. It should be noted that this is not just a problem of overlap. By defining RP as AAB plus FA+, magnitude of reinforcement is confounded with type or category of reinforcement. In short, when offered a choice between one type of reinforcer vs. another (e.g., AAB vs. FA+); or either one vs. "both" (e.g., AAB vs. AAB & FA+), people usually select "both".

The second shortcoming of the PROS, namely, the lack of an empirical check on the PROS's ability to embrace all reinforcers in the target population of reinforcers, raises a doubt concerning the comprehensiveness of the PROS categories. One way to accomplish an empirical

check would be to carefully define the target population of reinforcers, gather as many representatives from that population as is possible, and then ask experts to assign the examples to the PROS categories. When the validity evidence offered is considered, it is clearly a limited way to assess validity and not at all related to comprehensiveness. What is established is support for the proposition that the PROS positive categories (i.e., 1-10) are not confused with neutral categories (i.e., 11-12) or negative categories (i.e., 13-14).

The third shortcoming concerns the fact that certain categories do not represent consequating events and therefore cannot be categories of reinforcers (by definition). Adjuvant Memory (AM) and Aiding by Example (AE) seem to define modeling or prompting responses. The categories Accepts Feelings (AF) and Accepts Ideas (AI) appear to involve acceptance or at least the absense of punishment (e.g., "...will not punish") and/or predicting a response (e.g., "Predicting or recalling feelings is included"). Because none of these categories seem to represent reinforcers, their inclusion in the PROS seems inappropriate. The inclusion of the neutral and negative categories (i.e., AQ, NVR, A-, & FA-) were added by Bersoff and Moyer as part of their validation strategy and could be justified on that basis. However, it is curious that they included the latter four categories in the preference scales they derived from the categories. AQ and NVR certainly do not represent

adequate coverage of all possible neutral categories nor do A- and FA- represent adequate coverage of all possible negative categories. For example, "time out procedures" which is a common "negative" category is not represented. Yet, researchers using the PROS pair comparison scale have not refrained from making general statements about positive versus negative (or positive versus neutral) superordinate classes of reinforcers (e.g., Derenvensky & Rose, 1978). This problem with poor generalization might have been prevented by deleting AQ, NVR, A-, and FA- after Bersoff and Moyer's validation study had been completed.

The review will now shift to other categorization schemes which have not been used as the bases for reward preference scales but which might be.

Other systems of Categorization

A review of the categorization schemes for positive reinforcers proposed by writers in the field (e.g., Becker, Engelmann, & Thomas, 1971; Blackham & Silberman, 1975; Clarizio, 1979; Dollar, 1972; Haring & Phillips, 1972; Hewett, 1968; Kazdin, 1975; MacMillan, 1968; Madsen & Madsen, 1970, 1972; Sulzer-Azaroff & Mayer, 1977) reveals a tendency to form three basic categories of reinforcers. These basic ones are: tangible, social and activity. Each of these categories is further divided by some authors (e.g., tangible reinforcers divided into "primary rewards -- food and water"

and "toys or trinkets", MacMillan, 1968; social rewards divided into "physical expressions -- gestures" and "closeness -- nearness -- touching", Madsen & Madsen, 1970; activity rewards divided into "social -- individual" and "social -- group", Madsen & Madsen, 1970).

Review of the existing categorization schemes reveals that none of them offer empirical evidence that they are both comprehensive and yet have sufficient subdivisions to allow for reasonable homogeneity of "type of reinforcer".

The Development of a New Categorization Scheme: Categories of Teacher Controlled Positive Reinforcers (CTCPR)

All existing schemes have limited themselves to the consideration of reinforcers which are typically available in the schools. Reinforcers which are expensive, obscene, or otherwise not acceptable in the schools are not considered. The CTCPR follows this limitation and adds an additional proviso. The CTCPR limits consideration to teacher controlled reinforcers. This recognizes the fact that the teacher is not the only dispenser of rewards in the classroom. For example, students can engage in self-stimulatory behaviors which are reinforcing and students can reinforce other students (even in opposition to the teacher's wishes).

The "teacher controlled" proviso would also exclude another class of reinforcers identified in other schemes which may be called "Sense of Mastery" (Clarizio, 1979;

Hewet, 1968; MacMillan, 1968). MacMillan calls this "learning for the love of it." This is similar to White's (1963) notion of effectance motivation which assumes that an organism finds having an effect on the environment to be a positive experience, even in the absense of apparent external reinforcement. Its omission from the CTCPR might be justified for two reasons. The first reason for omission concerns the teacher's inability to administer a "sense of mastery" in the same sense that he can administer a token, a piece of candy, verbal praise and so on. That is, it could be omitted because it does not meet the "teacher controlled" proviso. However, it might be argued that the teacher can structure the learning environment to allow students to engage in intrinsically motivating activities.

A second reason for omission concerns the multiple interpretations of a child "learning for the love of it." Does the child experience a "sense of mastery" when, for example, he completes a schoolwork assignment or is he just glad that he has finished some aversive task? The latter case (i.e., the removal of aversive stimulation) might be interpreted as a negative reinforcer and not as intrinsic reinforcement.

At any rate, in spite of some problems, a category called "Intrinsic Rewards" is included because of the great current interest and research on intrinsic reinforcement (Bates, 1979). Bate's review and other studies

relevant to, but not included in his review (Loveland & Olley, 1979; McLoyd, 1979), all focus on the effects of extrinsic reinforcement on the level of a child's interest in a task. These studies are, in part, a reaction to critics who see extrinsic reinforcement as a mechanism whereby the intrinsic interest in learning that a child appears to possess at school entry is undermined. These critics (de Charms, 1968; Deci, 1971; Friedman & Zeevi, 1971; Lepper, 1973; Nisbett & Valins, 1971) present no empirical evidence that intrinsic interest in school learning is, indeed, high at school entry. If it is not high at school entry as it has been popularly assumed, then the body of research on the negative effects of extrinsic reinforcement on existing intrinsic interest may have neglected to investigate a key assumption, namely, the comparative strength of intrinsic interest in school learning over grades. This dissertation provides a method whereby this assumption can be evaluated.

The categories of the CTCPR (in preliminary form) their symbols and definitions are found in Table 2. The CTCPR is designed to be both comprehensive (within the previously noted limitations) and to have sufficient subdivisions to allow for reasonable homogeneity of reinforcers within each category.

TABLE 2. Categories of Teacher Controlled Positive Reinforcers -- Preliminary Form

CE	Concrete Edible Rewards: This category contains all substances which are normally taken into the human body. For example, the teacher might reward a student by giving him or her a piece of candy, a donut, a cola, or a gumdrop.
CN	Concrete Non-Edible Rewards: This category contains all objects which are tangible and which are not usually taken into the human body. They are not intentionally presented as representing or symbolizing something beyond themselves. For example, the teacher might reward a student by giving him or her some crayons, a pencil, a comic book, a small toy, or a record. <u>Non-examples</u> are certificates of merit, stars, and tokens.
RS	Redeemable Symbolic Rewards: This category contains all objects and symbols which can be earned and subsequently exchanged for a reinforcer from another category. For example, the teacher might give the student a token (i.e., poker chip, tally mark, colored stick, etc.) which the student can later exchange for a reinforcer from another category. Graphs indicating achievement levels are also contained in this category <u>providing</u> the student can select a reinforcer when a designated point on the graph is reached.
N-RS	Non-Redeemable Symbolic Rewards: This category contains all objects and symbols which are symbolic of desired performance but which cannot be redeemed for a reinforcer from another category. For example, the teacher might make a graph of good behavior without any other rewards. Or, the teacher might give the student a star, a good grade, a check mark, or a happy face sticker.
OC	Oral Communication Rewards: This category contains all positive teacher verbalizations. For example, the teacher might reward a student by saying "that's great", "good job", "fine answer", or "far out".
WC	Written Communication Rewards: This category contains all positive written words. For example, The teacher might write "that's great" or "good job" on a good paper. Or the teacher might send a positive note home concerning good work.

TABLE 2 (cont'd)

CBC	Close Body Communication Rewards: This category contains all physical gestures or "body language" which involve actual physical contact. For example, the teacher might reward a student by giving the student a pat on the back, a hub, a tickle, a handshake or a kiss.
DBC	Distant Body Communication Rewards: This category contains all physical gestures or "body language" which can be understood without physical contact. For example, the teacher might reward a student by giving the student a smile, a nod, a wink, or, a "thumbs up" sign.
R	Responsibility Rewards: This category includes all "adult-like" responsibilities given to a student as a reward such as safety patrol member, line monitor, tutoring other children, and helping with classroom maintenance.
IA	Individual Activity Rewards: This category contains all activities which are done alone and which do <u>not</u> fall into the Responsibility Rewards category. For example, the teacher might reward a student by letting him or her do some activity which carries no responsibility and which he or she can do alone such as finger painting, reading, or napping.
SA	Social Activity Rewards: This category contains all activities which cannot be done alone and which <u>do not</u> fall into the Responsibility Rewards category. For example, the teacher might reward a student by letting him or her do some activity which carries no responsibility and which he or she cannot do alone such as talking to a friend, playing checkers, playing scrabble, playing teeter-totter, or using a phone.
S	Shared Rewards: This category refers to any reward which when obtained is shared or given away. For example, the teacher might reward a student by letting him or her earn a small toy for a sibling or a disadvantaged child. Also included here would be any activity where a student wins points (or something else) for a group which he is a member of.

TABLE 2 (cont'd)

- E Escape Rewards: This category includes privileges which allow a student to avoid an aversive situation or event. For example, the teacher might reward a student by exempting him or her from a test, eliminating a homework assignment, or early dismissal from class.
- I Intrinsic Rewards: This category includes those cases in which the student is doing a task which he or she finds enjoyable all by itself. Examples are "learning for learning's sake", and "working for a sense of competence".
-

Table 3 shows a check on the extent to which reasonable homogeneity of categories has been accomplished. Table 3 lists some existing schemes by author and compares and contrasts the CTCPR (in preliminary form) with each. The CTCPR (in preliminary form) offers more homogeneous categories when multiple CTCPR (in preliminary form) categories appear in any one of the existing scheme's categories.

The CTCPR (in preliminary form) offers a more comprehensive categorization scheme whenever the CTCPR (in preliminary form) has a category which does not appear in the other categorization scheme.

When an existing scheme has a category which does not appear in the CTCPR (in preliminary form) (which would be indicated by "X" marks in column two), it is either including a category explicitly omitted from the CTCPR (in preliminary form) or the the CTCPR (in preliminary form) has omitted an acceptable category inadvertently. Inspection of Table 3 reveals no "X's", hence, the issue is moot.

While the preceding is an interesting conceptual check of the homogeneity and comprehensiveness of the CTCPR (in preliminary form), an empirical check of the same must also be accomplished.

TABLE 3. Comparison of the CTCPR - Preliminary Form with other Categorization Schemes

EXISTING SCHEMES' CATEGORIES	CTCPR CORRESPONDING CATEGORIES	CTCPR CATEGORIES NOT IN OTHER SCHEME
Becker et al., 1971		
1. Social	OC, WC, CBC, DBC, IA, SA, R	CE, CN, N-RS, S, E, I
2. Activities	IA, SA, R	
3. Tokens	RS	
Blackhan & Silberman, 1975		
1. Objects	CE, CN, RS, N-RS	OC, WC, CBC, DBC, S, E, I
2. Activities	IA, SA, R	
3. Games	IA, SA	
Clarizio, 1979		
1. Social	OC, WC, CBC, DBC, IA, SA, R	S, E
2. Activities	IA, SA, R	
3. Tangibles	CE, CN, RS, N-RS	
4. Activities that carry their own reward	I	
Dollar, 1972		
1. Social	OC, WC, CBC, DBC, IA, SA, R	S, E, I
2. Activities	IA, SA, R	
3. Concrete	CE, CN, RS, N-RS	
Haring & Phillips, 1972		
1. Social	OC, WC, CBC, DBC, IA, SA, R	CN, N-RS, S, E, I
2. High-Strength Activities	IA, SA, R	
3. Tokens	RS	
4. Food	CE	

TABLE 3 (cont'd)

Hewett, 1968		
1. Tangibles	CE, CN, RS, N-RS	E
2. Social Rewards	OC, WC, CBC, DBC, IA, SA, R	
3. Completion of Tasks	I	
4. Multisensory Experiences	All but E	
5. Approval	All but E	
6. Being Correct	I	
7. Acquisition of Knowledge	I	
Kazdin, 1975		
1. Food & Other Consumables	CE	CN, S, E
2. Social Reinforcers	OC, WC, CBC, DBC, IA, SA, R	
3. High Probability Behaviors	IA, SA, R	
4. Informative Feedback	I, R-NS	
5. Tokens	RS	
MacMillan, 1968		
1. Primary Rewards	CE	S, E
2. Toys or Trinkets	CN	
3. Tokens or Checks	RS	
4. Visual Evidence of Progress (e.g., graphs)	N-RS	
5. Social Approval	OC, WC, CBC, DBC, IA, SA, R	
6. Sense of Mastery	I	
Madsen & Madsen, 1970		
1. Words	OC, WC	RS, N-RS, S, E, I
2. Physical Expressions	CBC, DBC	
3. Closeness	CBC, IA, SA, R	
4. Activities	IA, SA, R	
5. Things	CE, CN	

TABLE 3 (cont'd)

Sulzer-Araroof & Mayer, 1977

1. Edibles	CE	S, E, I
2. Tangibles	CN, N-RS	
3. Tokens	RS	
4. Activities	IA, SA, R	
5. Social	OC, WC, CBC, DBC, IA, SA, R	

The CTCPR's (In Preliminary Form) Validity

The first step was to define the target population of reinforcers. It was "the population of teacher controlled positive reinforcers." The operational definition of this population was "all reinforcers recommended for teachers' use in the schools by experts in the field." Following from the operational definition, a search of the literature was made for lists of reinforcers recommended by experts for teachers' use in the schools. Appendix "C" contains a composite of these lists gathered from the following sources: Anderson and Barbe (1974); Becker, Engelmann, and Thomas (1971); Blackham and Silberman (1975); Clarizio (1979); Gardner (1974); Goodwin and Coates (1976); Martin and Lauridsen (1974); Neisworth, Deno, and Jenkins (1969); Piper (1974); Sulzer-Azaroff and Mayer (1977); Walker and Shea (1976). This list was presented to three doctoral students in school psychology at MSU. They sorted the reinforcers into the CTCPR (in preliminary form) categories according to the directions at the beginning of Appendix "C". Rater reliabilities were computed for each item. Of the 431 reinforcers, 373 (86.5%) were placed in the same category by all raters (i.e., 100% rater reliability), 57 reinforcers were placed in the same category by two of the three raters (i.e., 66.7% rater reliability), and 2 reinforcers were placed in different categories by all three raters (00.0% rater reliability). These results lend support for the

CTCPR's (in preliminary form) construct validity.

These results led to a refinement of the categorization scheme. The data indicated that the "SA" and the "IA" categories accounted for 15 of the 58 instances of less than 100% rater agreement. Interviews with the raters indicated that, in most cases, the reinforcers in question did not give enough information concerning the nature of the settings to determine whether it was a social or an individual activity. To avoid rewriting the reinforcers and possibly biasing the operational "population" of reinforcers in favor of the categorization scheme, it was decided to collapse the "IA" and "SA" categories to form a new category called "Activity Rewards". This change improved the percent of reinforcers rated in the same category by all raters from 86.5 to 90.0%.

Other discussions with the raters led to slight, non-substantive changes in some category definitions. Table 4 contains the revised CTCPR category names and definitions. The revised CTCPR categorization scheme will henceforth be referred to as simply the CTCPR.

Reliability of the CTCPR Pair Comparison Scale

The initial estimate of the CTCPR pair comparison scale's test-retest reliability was obtained by administering the scale in a MSU graduate extension course (i.e., Ed. 812: Growth and Development) then readministering it 21 days later (Van Treese, 1980). Nineteen usable

TABLE 4. Revised CTCPR Category Symbols and Definitions

- CE CONCRETE EDIBLE REWARDS: This category contains all substances which are normally taken into the human body. For example, the teacher might reward a student by giving the student a piece of candy, a donut, a cola, or a gumdrop.
- CN CONCRETE NON-EDIBLE REWARDS: This category contains all tangible objects which are not usually taken into the human body. They are not presented as symbolizing something beyond themselves. For example, the teacher might reward a student by giving the student some crayons, a pencil, a comic book, a small toy, or a record. Non-examples are stars, tokens, or certificates of merit.
- RS REDEEMABLE SYMBOLIC REWARDS: This category contains all objects and symbols which can be earned and subsequently exchanged for a reinforcer from another category. For example, the teacher might give a student a token (i.e., a poker chip, tally mark, colored stick, etc.) which the student can later exchange. Graphs and charts indicating achievement levels are also contained in this category providing the student can select a reward from another category when a designated point on the graph or chart is reached.
- N-RS NON-REDEEMABLE SYMBOLIC REWARDS: This category contains all objects and symbols which are symbolic of desired performance but which cannot be redeemed for a reinforcer from another category. For example, the teacher might make a graph of good behavior without any other rewards. Or, the teacher might give the student a star, a good grade, a check mark, or a happy face sticker.
- OC ORAL COMMUNICATION REWARDS: This category contains all positive teacher verbalizations such as "that's great", "good job", "fine answer", or "super".
- WC WRITTEN COMMUNICATION REWARDS: This category contains all positive written words. For example, the teacher might write "that's great", "good job", "fine answer", or "super" on a good paper. Or, the teacher might send a positive note home concerning good work.
- CBC CLOSE BODY COMMUNICATION REWARDS: This category contains all physical gestures or "body language" which involves actual physical contact. For example, the teacher might reward a student by giving the student a pat on the back, a hug, a tickle, a handshake, or a kiss.
- DBC DISTANT BODY COMMUNICATION REWARDS: This category contains all physical gestures or "body language" which can be understood without physical contact. For example, the teacher might reward a student by giving the student a smile, a nod, a wink, or a "thumbs up" sign.
- A ACTIVITY REWARDS: This category contains all play activities. For example, the teacher might reward a student by letting the student talk to a friend, play a game, read, or nap.
- R RESPONSIBILITY REWARDS: This category includes "adult-like" responsibilities given to a student as a reward such as safety patrol member, line monitor, tutoring other children, or classroom pet caretaker.
- S SHARED REWARDS: This category contains any reward which when obtained is shared or given away. For example, the teacher might reward a student by letting the student earn a small toy for a sibling or disadvantaged child. Also included here is the situation where a student wins points (or something else) for a group of which he is a member.
- E ESCAPE REWARDS: This category includes privileges which allow a student to avoid an aversive situation or event. For example, the teacher might reward a student by exempting the student from a test, eliminating a homework assignment, or early dismissal from class.
- I INTRINSIC REWARDS: This category contains those cases in which the student is doing a task which he or she finds enjoyable all by itself. Examples are "learning for learning's sake", and "working for a sense of competence".

protocols were obtained. Two procedures were chosen to measure reliability: (1) the percent of agreement among pairs from first to second administration was calculated for each \underline{S} ; and, (2) the rank-order correlation between first and second administrations was calculated for each \underline{S} on category rankings. Mean percent agreement was 80.3% (range 53.9-94.9); mean rho was .792 (range .252-.963). These results were similar to those Bersoff and Moyer obtained for the PROS pair comparison scale on a 15 day test-retest interval.

Additional reliability data was obtained as part of this dissertation and is reported in the following chapter.

SECTION THREE: REVIEW OF THE RESEARCH ON AGE-RELATED CHANGES IN REWARD PREFERENCES

In the introductory chapter, three lines of research on age-related changes in children's reward preferences were surveyed. The first line concerned the equating of reward preferences in learning studies. The second line concerned age-related changes in reward preferences for rewards which vary on dimensions such as "immediate/delay" and "concrete/symbolic". The third line, the one most closely followed in this dissertation, concerned age-related changes in adult perceptions of children's preferences for various categories of reinforcers. In the second section of this chapter, the research on the development of the CTCPR and a pair comparison scale based on it was reviewed. In this section, a study by Ware (1978) and a study by Van Treese (1980) are reviewed.

Ware's Research

Ware had high school students and their teachers rank order an assortment of 15 potential rewards established from a pilot study. The list of rewards was: opportunity to reach a personal goal; school scholarships; compliments

and encouragement from friends; being accepted as a person or having their opinion sought; trophies, certificates, medals, ribbons; raises, bonus paid, vacation (job-related); special privileges or responsibilities; letter of recognition, appreciation; name in newsletter, newspaper, or on loudspeaker; teacher or employer compliments and encouragement; money for accomplishments; party, picnic, trips, banquets; election to an office; being chosen to be on special programs; winning a contest.

Ware's main conclusion was that teachers tend to rank extrinsic rewards higher than intrinsic rewards as compared to student rankings. Yet, no empirical support was offered for the categorization of some of the specific rewards used as fitting in the categories called "extrinsic" or "intrinsic" (Ware, p. 355). The major flaw was the unsupported generalization from specific rewards to general categories. For example, Brophy (1980) gave the low ranking for teacher praise from Ware's study as evidence for support of the idea that "teacher praise is not very reinforcing to most students even though it is stressed so widely" (in the literature) (p. 22-33). Clearly, Ware's research cannot support a generalization beyond high school students (i.e., no elementary levels were included) nor can it provide evidence concerning teacher praise's relative standing among a broader set of specific rewards. Ware presented no evidence that the specific rewards used were representative of the

broader population of rewards used in the schools.

Van Treese's Research

A study by Van Treese (1980) was done on adult perceptions of children's preferences for various reward categories. Teacher perceptions of reward preferences of K, 3rd, and 6th graders by sex and by achievement were studied. Sex was fixed at two levels, male and female. Achievement was fixed at two levels, above and below average. When the study was planned, age, sex, and achievement were seen as important variables which might interact with teachers' perceptions of children's reward preferences. Age and achievement were indicated as potentially important by previous research (e.g., Harter and Zigler, 1974). Sex was suggested by Dervenskey and Rose (1978) as a potentially important variable.

The CTCPR pair comparison scale was used to assess perceptions. The independent variables were varied by altering the descriptors of the child given on the face sheets of the surveys. Appendix "E" shows how this was done on a similar study.

The data were analyzed by multivariate analyses of variance to provide omnibus F-tests for the hypotheses and by univariate analyses of variance to examine variation of specific reward categories within each omnibus test.

The highest order interaction testable by the design was significant. Thus, the best prediction of which "kinds" of children are seen as preferring various categories of rewards is made when the levels of grade, sex, and achievement are known. However, certain categories were fairly stable across all combinations of levels of grade, sex, and achievement. "Activity Rewards" and "Responsibility Rewards" were ranked number one and number two respectively over all levels with a substantial "distance" separating them from the other reward categories. At the other end, "Intrinsic Rewards" was ranked consistently low. The latter finding differs from those who have assumed intrinsic interest in school learning is high at school entry (Bates, 1979).

Teacher praise, if defined as "Oral Communication Rewards", exhibited a wide range of variability in preference depending on which type of child was being considered. However, if "Oral Communication Rewards", were examined with age, sex, and achievement collapsed, it appears lowly ranked. Previous research which did not consider (either by experimental variation or control) types of children may have led to erroneous conclusions (e.g., Brophy concerning praise).

Some other findings were that "Shared Rewards" and "Distant Body Communication Rewards" were consistently low preference categories. Because of the shift from adult to peer orientation as age level increases

(at least through adolescence), one might expect "Shared Rewards" to increase with age. However, to properly evaluate this would require the inclusion of a higher grade level than was included in the 1980 study by Van Treese.

The finding that "Distant Body Communication Rewards" was a consistently low ranked reward is of interest. It is a relatively easy type of reward for a teacher to administer in a classroom. This finding supports the conclusion that teachers' were focusing (as they were directed by the survey) on "choose as you think the student would choose" rather than selecting rewards on the basis of ease of use in classrooms.

Chapter Summary

This chapter was divided into three major sections. The sections contained the review of the relevant measurement theory, the literature related to categorization scheme development and instrument development, and the research on age-related changes in reward preferences.

The next chapter contains the results of the research conducted as part of this dissertation.

CHAPTER THREE

RESULTS

This chapter has two main sections. A further empirical check on the construct validity of the CTCPR categories is presented in the first section.

Additional reliability data on the CTCPR pair comparison scale is presented in the second section. A study of teachers' and school psychologists' perceptions of student reward preferences is also presented in the second section.

SECTION ONE: THE CONSTRUCT VALIDITY OF THE CTCPR CATEGORIES

As previously stated, Van Treese (1980) found support for the conclusion that the CTCPR categories (in initial form) possessed good construct validity. However, some slight changes were made in the wording of some categories and two related categories were collapsed into one. Thus, additional data must be collected to test the assumption that changes did not adversely affect the categorization scheme's construct validity.

The same list of reinforcers used in the 1980 validity study were used for the validity study on the revised CTCPR categories. See Appendix "C" for the list of reinforcers. Ten special education teachers and ten school psychologists were the raters. Table 5 displays the number of reinforcers classified in each reward category by the percent of rater agreement. For example, for category CE, there are 35 reinforcers placed in that category by 100% of the raters. Table 5 presents strong evidence for the construct validity of the revised CTCPR categories. For example, 89.8% of the reinforcers were rated in the same category by 90% or more of the raters. Less than 2% of the reinforcers (8 out of 431) were not classified in one category by at least 60% of the raters. Appendix "D" presents each reinforcer in its assigned category with the percent of rater agreement.

TABLE 5. Validity Data on the CTCPR Categorization Scheme

% of Rater Agreement	100	90	80	70	60	Σ(row)
Categories						
CE	35	2				37
CN	71	2				73
RS	17	2	5			24
N-RS	18	5	2			25
OC	53	1	1			55
WC	55	2				57
CBC	16		1			17
DBC	7		2			9
A	42	15	9	8	4	78
R	20	7		1	1	29
S	4	1		1		6
E	4	3		1		8
I	5					5
Σ(column)	347	40	18	13	5	
% of <u>N</u> in Column	80.5	9.3	4.2	3.0	1.9	
Number of Exemplars not Classified in any one category						8
% of <u>N</u> not Classified in any one category						1.9
N = 431						

SECTION TWO: TEACHERS' AND SCHOOL PSYCHOLOGISTS'

PERCEPTIONS OF STUDENT REWARD PREFERENCES

In this section, the extension of Van Treese's (1980) study is presented. The design, the purposes and the hypotheses are presented. The research procedures are detailed and the rationales for changes made from the 1980 study are discussed. The results are also presented. The discussion of the results appears in the next chapter.

Design of the Study

The study was designed to investigate female teachers', male school psychologists', and female school psychologists' perceptions of male school children's reward preferences by grade and by behavioral characteristics of children. The design provides indicators of possible age-related changes in male school children's reward preferences from the three groups of respondents. The use of the phrase "age-related changes" is not intended to imply ontological changes since that requires a longitudinal research design.

Table 6 presents the experimental variables. Table 7 presents the control variables and indicates at what level each is fixed. "Behavior" is fixed at "no serious

TABLE 6. Experimental Variables

Type of Respondent (T)	Fixed, Indp.	Regular Education Teacher, Female Psychologist, Male Psychologist
Grades (G)	Fixed, Indp.	K, 3rd, 6th, 9th
Student Characteristic (SC)	Fixed, Indp.	Average Achievement, Just Barely Passing, Overcontrolled, Shy-Anxious Behavior, Undercontrolled, Acting-Out Behavior
Categories (C)	Fixed, Depd.	CTCPR Categories

TABLE 7. Control Variables

Sex of Student	Male
Socioeconomic Status	Middle
Race	Caucasian
Home-School Relationship Behavior	Good
	No Serious Behavior Problem Which Would Require Removal From A Regular Education Program

behavior problem" indicating the behavior is not outside of the range usually found in regular education classrooms.

Table 8 is a schematic representation of the design of the study. The independent variables are fully crossed. The independent variable "SC" was not entered as two separate crossed variables (i.e., two levels of achievement and two levels of behavior). Entering "SC" as two crossed variables would have made it impossible to examine the "Average" level without summing across two levels of abnormal behavior, which would have distorted the meaning of "Average". Of course, the summing across two levels of abnormal behavior could be avoided by adding a third "normal" level of behavior. However, that would increase the size of the design by one third.

The design of the study was not a cross-sectional or a longitudinal design. Actual students were not used. The respondents' perceptions were based on simulated students whose characteristics were carefully specified. Because the respondents were assessed at one point in time, the design had a characteristic of a cross-sectional design. Because the respondents' perceptions were based on simulated students, cohort effects were minimized and this gave the design a characteristic of a longitudinal design. The design of the study was a kind of hybrid between a cross-sectional design and a longitudinal design.

TABLE 8. Design of Study

		CTCPR Categories				
			C ₁	C ₂	C ₃	... C ₁₃
T ₁₁ ³	G ₁	SC ₁	R ₁ ³			
		SC ₂				
		SC ₃				
		SC ₄				
	G ₂	SC ₁				
		SC ₂				
		SC ₃				
		SC ₄				
	G ₃	SC ₁				
		SC ₂				
		SC ₃				
		SC ₄				
	G ₄	SC ₁				
		SC ₂				
		SC ₃				
		SC ₄				

NOTE: T₁₁³ means the matrix is repeated a total of three times, once for female teachers, once for female school psychologists, and once for male school psychologists.

R₁³ means there are three replications per cell.

G₁...G₄ indicate K, 3rd, 6th, and 9th grades.

SC₁...SC₄ refer to types of Student Behavioral Characteristics.

Purposes of the Study

The main purpose of the study was to investigate possible age-related changes in male school children's reward preferences. These possible changes were inferred from the three groups of adult respondents on the CTCPR pair comparison scale.

The secondary purpose of the study was to compare the degree of congruence among the three groups of respondents' perceptions of the children's reward preferences.

Hypotheses

The following hypotheses addressed the purposes of the study and followed from the design of the study:

1. There will be no main effect for Type of Respondent.
2. There will be no main effect for Grade.
3. There will be no main effect for Student Characteristic.
4. There will be no Type of Respondent by Grade interaction.
5. There will be no Type of Respondent by Student Characteristic interaction.
6. There will be no Grade by Student Characteristic interaction.
7. There will be no Type of Respondent by Grade by Student Characteristic interaction.

Analysis

All hypotheses were tested at alpha equal to .05 except the 7th which was tested at alpha equal to .10. The change in alpha was necessary, given cell size, to keep power at .80 or better for moderate size effects (Cohen, 1977).

Each respondent completed the CTCPR pair comparison scale. This provided a rank of one to 13 for each of the CTCPR categories. These ranks provided the data which were analyzed by multivariate analyses of variance to provide omnibus F-tests for the seven hypotheses. Univariate analyses of variance of each of the 13 categories provided analyses of the variation of each of the categories within each omnibus test (Scheifley & Schmidt, 1973). Each univariate analysis had alpha equal to .004 to keep overall alpha at .05.

Because of the ipsative nature of the rank data obtained from each respondent, it was necessary to omit one category from the analysis (i.e., "Escape Rewards"), run the analysis, reinsert it while dropping another category (i.e., "Intrinsic Rewards"), and run the analysis a second time. By dropping a category, one avoids zero sums of squares and yet no information is lost because the dropped category is "determined" (i.e., has no degrees of freedom to vary). Reinserting the dropped category, dropping another and rerunning the analysis was done to provide univariate tests and cell means for all categories.

Respondents

Teachers were randomly sampled from the schools in the Muskegon Intermediate School District in Michigan. To obtain the sample, principals at randomly selected schools were asked to distribute the research forms to randomly selected female teachers in their buildings (according to further specifications noted in the procedures section).

The school psychologists were randomly sampled from a list of school psychologists practicing in Michigan. The list was obtained from the State Department of Education. With the exception of a few school districts who were late in up-dating the list for the 1980-81 school year, the list was current and complete. However, some surveys were mailed to the wrong addresses or to school psychologists who were not currently practicing in a school setting. Even though this was the best record of school psychologists practicing in Michigan, a slight decrease in the response rate for school psychologists was attributable to the list's deficiencies.

Respondents were encouraged to volunteer for the study by the offer of a \$50.00 cash prize which could be won by participating. This was done to increase the interest in the study. It also provided a rationale to have the respondents put their names and phone numbers on the form (so the winner could be notified). The latter may have reduced the number of carelessly completed surveys.

Procedure

The CTCPR pair comparison scale was used to assess teachers' and school psychologists' perceptions of children's reward preferences. The experimental levels were varied by altering the survey face sheets to specify the various types of children (i.e., grade levels and levels of student behavioral characteristics). The control variables remained the same on all survey face sheets. Appendix "E" contains two complete sets of survey face sheets, one set with background questions designed for teachers and one set with background questions designed for school psychologists. Within each set, the types of students were varied to produce a fully crossed design.

To assure correspondence between the teachers' experience and the grade level of the child about which they estimated preferences: only K teachers were given level K forms; only 3rd grade teachers were given level 3rd forms; only 6th grade teachers were given level 6th forms; and, only 9th grade teachers were given level 9th forms.

To assure a similar correspondence between the school psychologists' experience and the children about whom they made inferences, any school psychologist who worked primarily with severely handicapped children were not included in the analysis. That information was available from the background information data on the survey face sheets.

Rationale for Including School Psychologists as Respondents

The division of the school psychologists into two subsets by sex and the restriction of teachers to only females were done to control for the fact that teachers in the grades sampled are predominantly females while the group of school psychologists are roughly equal in their representation of both sexes. Expansion of the design to include male teachers was considered but was rejected because of the difficulty of finding adequate samples of male elementary teachers (particularly at the K level).

Rationale for Expansion of Grade Levels

The levels of grades were increased over those in Van Treese's (1980) study to include the 9th grade. This more complete sampling of grades was necessary to determine if the category "Shared Rewards" increased in preference at higher age levels. The inclusion of the 9th grade level also allowed the investigation of whether "Intrinsic Rewards" continued to be a low preference category as was found in the 1980 study.

Rationale for the Selection of the Control Variables

When designing the study, it became evident that not all potentially important dimensions of the student variable could be experimentally varied without creating a prohibitively large study. Therefore it was decided to hold certain variables constant.

Sex of student was fixed at male because male children are the most likely to experience behavior problems (Clarizio & McCoy, 1976). Male children are important to study if one wishes to increase the relevance of the findings to school psychologists.

The remaining four control variables were included to help insure that the "student" about whom the respondents were basing their judgments was standardized. Socio-economic status was fixed at the "Middle" level because it is the most common. Race was fixed at "Caucasian" to avoid the possibility some respondents might picture children of the different races disproportionately at the various levels of Student Characteristic. Home-School Relationship was fixed at "Good" based on the same rationale. Behavior was fixed at "No Serious Behavior Problem" to make it clear that the student is not so unusual that he would not be found in a regular education classroom.

It was intended that the careful control of certain variables will assist future researchers in building a useful body of data with this study serving as a starting point.

Rationale For the Selection of Student Characteristics

Four levels of the experimental variable Student Characteristic were selected. The levels were discrete and not part of a continuum.

The four levels were selected to address: a major level of achievement, the "Average" level; a less prevalent but more worrisome level of achievement, the "Just Barely Passing" level; and, the two major empirical classifications of disturbed children, the "Overcontrolled, Shy-Anxious" and the "Undercontrolled, Acting Out" children (Edelbrock, 1979). The first level (i.e., the "Average") was included to avoid the usual omission of studying only abnormal children and, therefore, being unable to ascertain whether the so-called deviant children differ appreciably from normals. The latter three were included to increase the relevance of the comparison of Teachers' (as implementors of recommendations made to alter problem behaviors) and the School Psychologists' (as recommenders or consultants) perceptions.

RESULTS

In this section of this chapter, the results are presented for the experimental study. The survey return rate is reported. Additional reliability data on the CTCPR pair comparison scale is reported. Finally, the findings relating to the hypotheses are presented.

Survey Return Rate

The survey return rate for the three groups of respondents were: 50% for male school psychologists; 51%

for female school psychologists; and, 59% for female teachers. As was previously discussed, the mailing list used for the psychologists had some inaccuracies. That may have accounted for the slightly lower return rate for the psychologists.

Reliability Data

Two reliability studies were completed. The first obtained test-retest correlations of the rank ordering of the reward categories from students in an off-campus MSU extension class (i.e., Ed. 812 Growth and Development) over a 14 day interval. The mean correlation was .905 (range .758-.969). The data on all 10 Ss are displayed in Table 9.

The second reliability study on the CTCPR pair comparison scale was obtained from a stratified random sample of the participants in the experimental study. This allowed the types of children in the study to be balanced. Table 10 displays the data for all 15 Ss. The test-retest intervals ranged from 6 to 28 days since the second administration was mailed to each selected respondent after the first administration was returned to the researcher. The lack of control of the time interval was necessary to obtain reliability estimates from the Ss in the experimental study. The mean correlation was .879 (range .737-.968).

TABLE 9. Reliability Data "A"

Subject	r
1	.969
2	.958
3	.952
4	.944
5	.935
6	.925
7	.894
8	.866
9	.852
10	.758

Table 10. Reliability Data "B"

Subject	r	Test-Retest Interval (days)
1	.96	20
2	.964	15
3	.953	29
4	.951	14
5	.941	12
6	.929	14
7	.925	13
8	.907	16
9	.898	7
10	.891	21
11	.814	28
12	.808	14
13	.761	27
14	.740	9
15	.737	15

Findings for Hypotheses

In this section, a summary table of the findings concerning each hypotheses is displayed. A discussion of each hypothesis follows.

TABLE 11. Summary Table for Hypotheses

Main Effects	p level	Significance
Hypothesis 1 (T)	< .0001	s
Hypothesis 2 (G)	< .0001	s
Hypothesis 3 (SC)	< .0001	s
Interactions		
Hypothesis 4 (TxG)	< .1420	ns
Hypothesis 5 (TxSC)	< .0005	s
Hypothesis 6 (GxSC)	< .0805	ns
Hypothesis 7 (TxGxSC)	< .2583	ns

1. The first hypothesis, "There will be no main effect for Type of Respondent." was rejected ($p < .0001$). However, Type of Respondent interacted significantly with Student Characteristic and Hypothesis 5 was rejected (refer to Table 11). Examining the interaction discloses that the differences suggested by the rejection of Hypothesis 1, by itself, are not particularly illuminating. Therefore, there is no detailed coverage of Hypothesis 1.

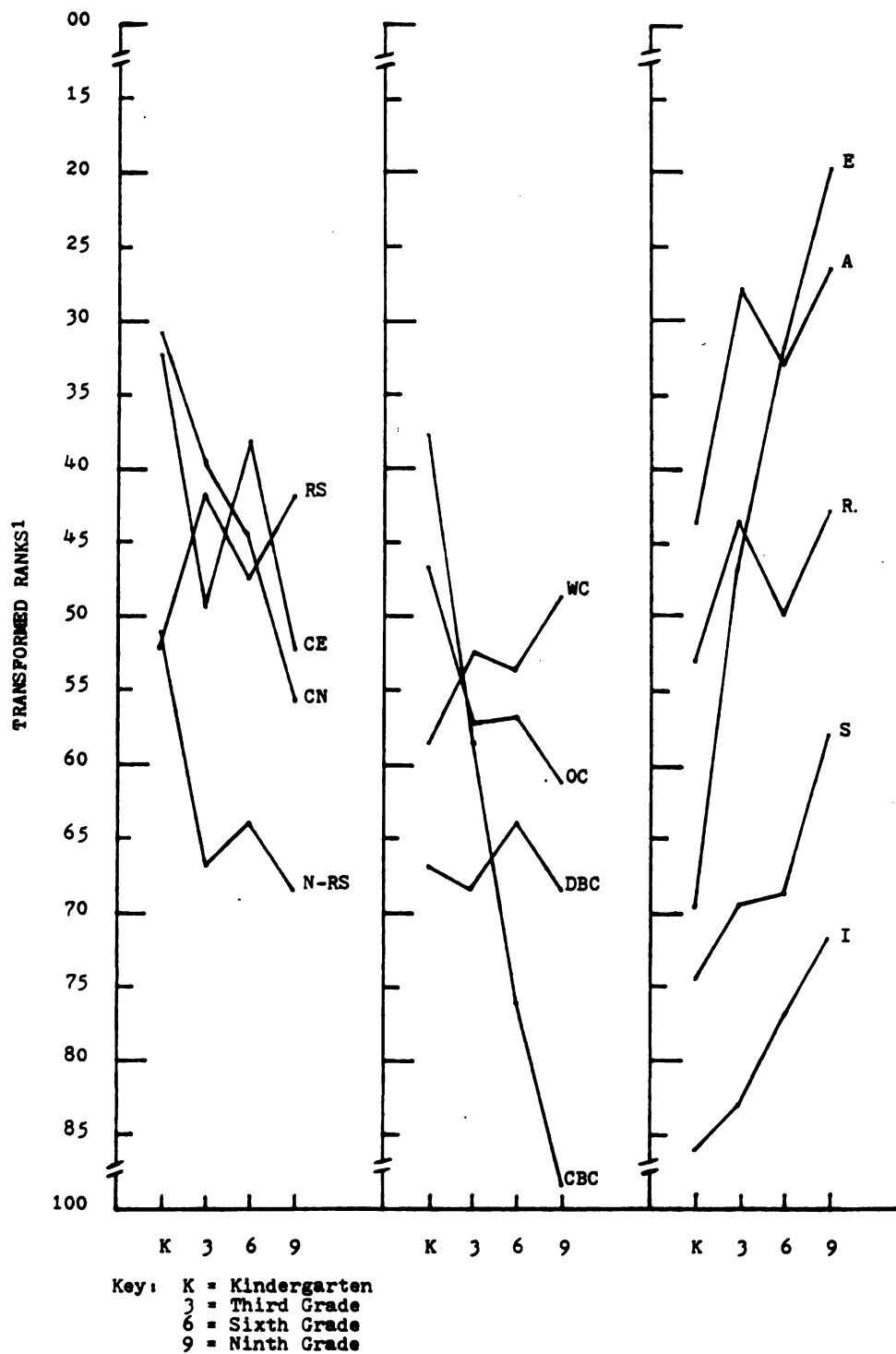
2. The second hypothesis, "There will be no main effect for Grade." was rejected ($p < .0001$). Examining the higher order interactions involving Grade (refer to

Table 11), one sees that Grade does not interact with Type of Respondent or with Student Characteristic. Therefore, the effect of Grade was independent of higher order interactions and can be considered separately.

Figure 3 discloses the variation of the individual categories by Grade. In Figure 3 and in the figures which follow, lower numbers indicate more preferred categories. Univariate analyses of the individual categories indicated significant effects for the following variables. The most dramatic change by Grade was the drop of the "Close Body Communication Rewards". "Escape Rewards" evidenced almost as large a change, but as an increase. "Concrete Non-Edible Rewards" evidenced the expected decline as Grade increased. However, the other "concrete" category, "Concrete Edible Rewards", did not quite reach significance. "Non-Redeemable Symbolic Rewards" declined with increase in Grade which is at variance with expectations based on other research. "Intrinsic Rewards", while not reaching significance, did not show a high level in Kindergarten. "Intrinsic Rewards" was the lowest category in Kindergarten and evidenced a weak non-significant trend to increase at each succeeding grade level.

3. The third hypothesis, "There will be no main effect for Student Characteristic." was rejected ($p < .0001$). Univariate analyses of the individual categories indicated significant effects for the following variables: "Written

Figure 3. Categories by Grade over Type of Respondent and over Student Characteristic



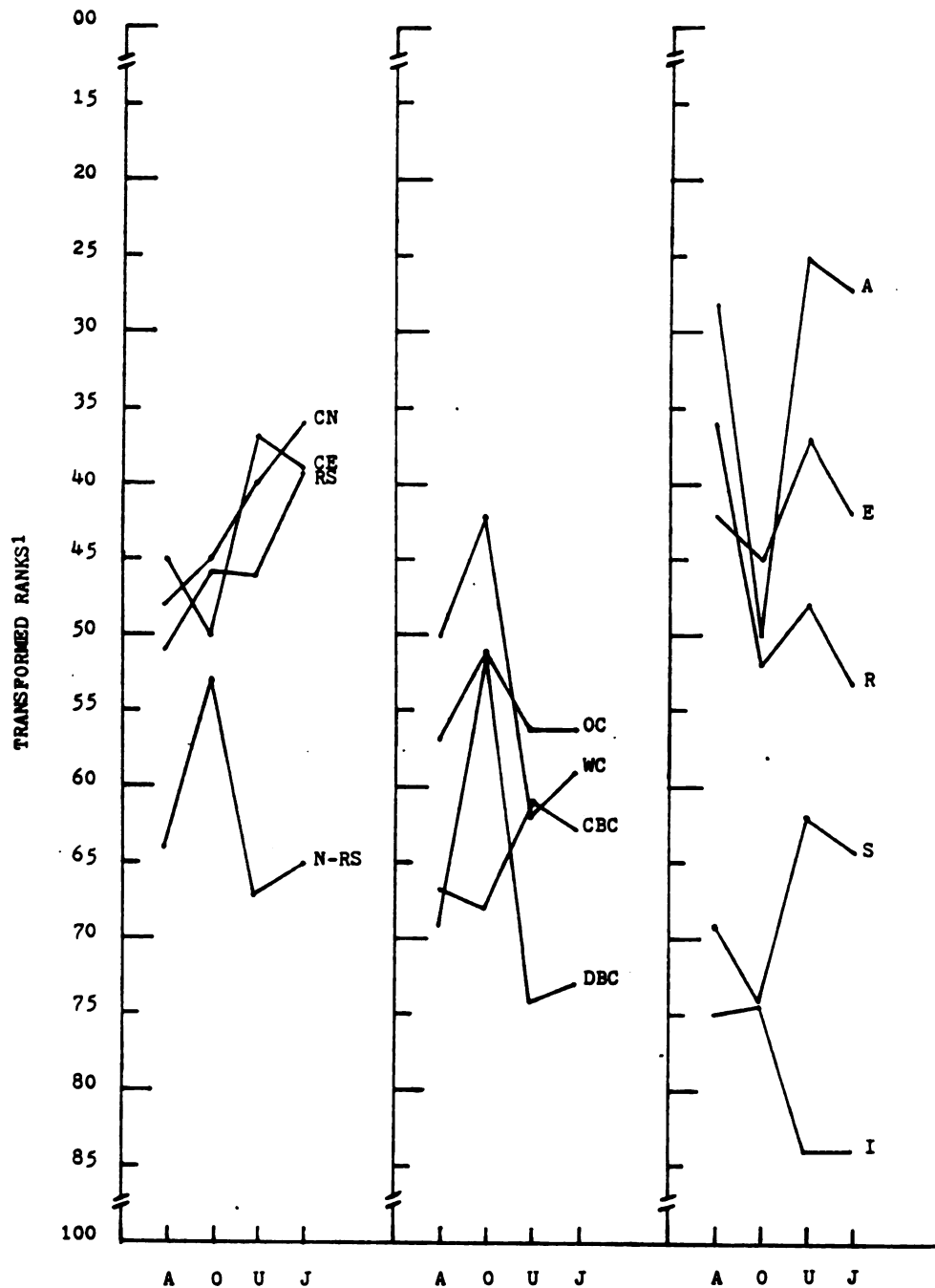
¹Dunn-Rankin (1965) interval scale transformation with lower numbers indicating more preferred categories. Theoretical range is 0.0 to 100 with a mean of 50.

Communication Rewards", "Distant Body Communication Rewards", and "Activity Rewards". Figure 4 plots categories by Student Characteristic over Type of Respondent and over Grade. Prior to discussing Hypothesis 3 further, it should be noted that Student Characteristic interacted with Type of Respondent (i.e., Hypothesis 5 was rejected). However, as is discussed shortly, the rejection of Hypothesis 5 does not substantially change the interpretation of the rejection of Hypothesis 3. Yet, they should be considered jointly. Further discussion of Hypothesis 3 is deferred until Hypothesis 5 is considered.

4. The fourth hypothesis, "There will be no Type of Respondent by Grade interaction." was not rejected ($p < .1420$). This means the three groups of respondents did not differ significantly in their perceptions of children's reward preferences when each level of Grade was considered.

5. The fifth hypothesis, "There will be no Type of Respondent by Student Characteristic interaction." was rejected ($p < .0005$). Univariate analyses of the individual categories indicated significant effects for the following variables: "Activity Rewards" and "Responsibility Rewards". Since "Activity Rewards" and "Responsibility Rewards" were the only two categories with significant variation among Type of Respondent, Figure 4, which plots categories by Student Characteristic over Type of Respondent and over Grade (see Hypothesis 3), would be

Figure 4. Categories by Student Characteristic over Type of Respondent and over Grade



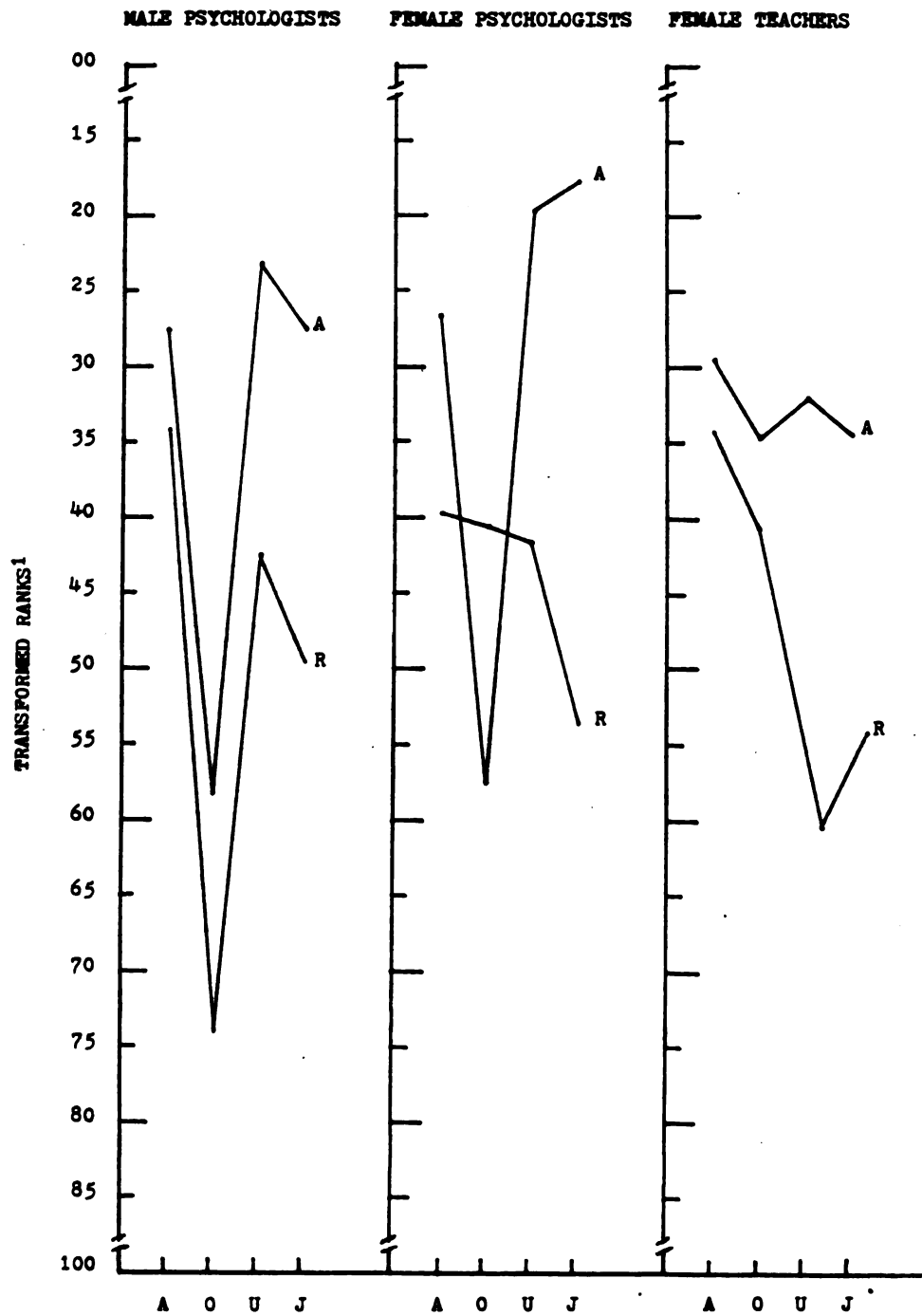
Key: A = Average Academic Achievement
 O = Overcontrolled, Shy Anxious Behavior
 U = Undercontrolled, Acting Out Behavior
 J = Just Barely Passing Academic Achievement

¹Dunn-Rankin (1965) interval scale transformation with lower numbers indicating more preferred categories. Theoretical range is 0.0 to 100 with a mean of 50.

substantially the same as a more complex graph which did not collapse over Type of Respondent. However, one can gain a more precise idea of the impact of considering the Type of Respondent dimension by plotting the "Activity Rewards" and the "Responsibility Rewards" by Type of Respondent by Student Characteristic and over Grade. This allows one to see the extent of the divergence of the different kinds of respondents. Figure 5 does that. The other CTCPR categories need not be plotted as they were rated essentially the same by the different kinds of respondents.

If one assumes that a difference in the rankings of two ranks is a "meaningful" difference (i.e., a big enough difference to appreciably alter the incentive value), then the following holds. All three kinds of respondents rated "Activity Rewards" essentially the same for the Average, Undercontrolled, and the Just Barely Passing students. However, on the Overcontrolled student, the male and the female psychologists saw "Activity Rewards" as more preferred than did the female teachers. All three types of respondents rated "Responsibility Rewards" essentially the same for the Average and the Just Barely Passing student. However, on the Overcontrolled student, the male psychologists rated "Responsibility Rewards" as less desirable. On the Undercontrolled student, the female teachers rated "Responsibility Rewards" as less preferred than did the two groups of psychologists. Another way to look at

Figure 5. Categories "A" & "R" Plotted by type of Respondent
by Student Characteristic over Grade



Key: A = Average Academic Achievement
O = Overcontrolled, Shy Anxious Behavior
U = Undercontrolled, Acting Out Behavior
J = Just Barely Passing Academic Achievement

¹Dunn-Ranking (1965) interval scale transformation with lower numbers indicating more preferred categories. Theoretical range is 0.0 to 100 with a mean of 50.

it, is to note that there were three instances where the female teachers' ratings diverged from either or both of the two groups of psychologists and one instance where the psychologists failed to agree with themselves. Even though the fifth hypothesis was rejected, the three types of respondents did not differ much in the way they rated the categories.

6. The sixth hypothesis, "There will be no Grade by Student Characteristic interaction." was not rejected ($p < .0805$). As noted earlier, Type of Respondent did not significantly interact with Grade and since there was no significant four-way interaction either, this allows a fairly straightforward interpretation of the significant main effect for Grade (Hypothesis 3).

7. The seventh hypothesis, "There will be no Type of Respondent by Grade by Student Characteristic interaction." was not rejected ($p < .2583$). The rejection of Hypothesis 7 would have required modified interpretation of the lower order effects, which is why it was tested.

Chapter Summary

In this chapter, the results of the research conducted as part of this dissertation were presented. The construct validity of the CTCPR categorization scheme and the reliability of the CTCPR pair comparison scale were reported. The design, hypotheses and the results of a study of students' reward preferences were presented.

CHAPTER FOUR

DISCUSSION

This chapter goes beyond the brief statement of the findings of the study on children's reward preferences reported in Chapter Four. The findings of that study are synthesized with previous research to speak to the major objectives of this dissertation.

First, age-related effects are considered. Then, the type of respondent effects and student characteristic effects are jointly considered.

Age-Related Effects

Intrinsic Rewards

In Chapter Two, it was noted that some critics of education (e.g., de Charms, 1968; Deci, 1971; Friedman & Zeevi, 1971; Lepper, 1973; Nisbett & Valens, 1971) assume that intrinsic interest in school learning is high at school entry and that it declines with increasing exposure to school. A great deal of research (Bates, 1979) has been done to attempt to elucidate the effects of extrinsic reward on intrinsic motivation. However, this research has not investigated the key assumption concerning the

the level of intrinsic interest in school learning which is present at school entry. The present study represents the beginnings of an empirical check on that key assumption.

Both this study and Van Treese's (1980) study indicated intrinsic motivation (as represented by "Intrinsic Rewards") to be rated the lowest of all CTCPR categories at Kindergarten and then showing a weak non-significant trend to increase with higher grade levels. These two studies represent a direct test of the level of intrinsic interest at school entry as inferred from the perceptions of school professionals.

Concrete/Symbolic and Immediate/Delay Dimensions

Previous research investigating the relationship of maturity to preference for rewards varying on the dimensions of concrete/symbolic and immediate/delay has generally established a positive correlation between age and the preference for symbolic rewards over concrete rewards and a positive correlation between age and the ability to delay gratification.

Examining the CTCPR categories which are closest to the symbolic rewards used in that body of research, namely, "Redeemable Symbolic Rewards" and "Non-Redeemable Symbolic Rewards", one sees no significant increase in preference with increase in grade level. In fact, "Non-Redeemable Symbolic Rewards" significantly declined with

age in the current study and in Van Treese's (1980) study. "Concrete Non-Edible Rewards" evidenced a significant decline with age in the present study with "Concrete Edible Rewards" evidencing a downward trend. Perhaps the previous body of research, because of its use of a basically two-choice contrast between concrete and symbolic rewards, found an "increase" in preference for symbolic rewards simply due to the contrast of a stable symbolic reward with a concrete reward which fell in preference with increase in age.

Examining the CTCPR categories for those varying on the immediate/delay dimension, one finds only "Redeemable Symbolic Rewards" to have a built in delay factor. "Redeemable Symbolic Rewards" did not significantly increase with increased age as measured by the perceptions of teachers and psychologists. However, the previous research on the immediate/delay dimension was concerned with the ability to delay gratification in order to obtain a reward of increased magnitude. Because magnitude was not increased in Van Treese's (1980) study or in the current study to encourage delay, the issue with which the previous body of research was concerned was not addressed. That is, the previous body of research argued that magnitude of reward should naturally increase in situations where delay of gratification is increased because of its "ecological validity" (i.e., delay of gratification is typically required in our society in order to maximize

reward) (Wieze, 1978).

Praise

Brophy (1980) cited research which supported praise, defined similarly to the CTCPR category of "Oral Communication Rewards", as a low preference reward. Indeed, Brophy and others (e.g., Maehr, 1976) have questioned whether praise is a reinforcer as often as is commonly assumed. Van Treese's (1980) study and the current study found "Oral Communication Rewards" to be a category which varies in preference over different experimental factors but which tends to be near middle rank.

Other CTCPR Categories

The current study and Van Treese's (1980) study suggested that "Close Body Communication Rewards" significantly declines with increased age, although this effect was moderated in female students (female students were considered only in the latter study). Casual observation of the amount of teacher-student physical contact in Kindergarten as compared to the 9th grade makes this seem like an unsurprising finding.

Van Treese's (1980) study and the current study indicated "Activity Rewards" to be a high preference category in Kindergarten and one which increased in preference with age. "Activity Rewards" would seem to be a relatively potent reward at any of the grade levels considered.

"Escape Rewards" was a category indicated by Van Treese's (1980) study and the current study to be a category which significantly increased in preference with increased age, but unlike "Activity Rewards", was of relatively low preference in Kindergarten. Perhaps the older students were perceived as desiring the "status" associated with the greater degree of control over their experiences more than the younger students. "Escape Rewards" showed the largest positive change with increased age.

"Shared Rewards" did not show more than a weak non-significant trend to increase with increased age. Also, "Shared Rewards" was a generally low ranked category and did not at any grade level surpass "Concrete Edible Rewards" or "Concrete Non-Edible Rewards" (the two concrete categories) in ranking. Perhaps "Shared Rewards" is too general in its "other" orientation and contains too much of an altruistic component to compare to the increase in peer-orientation found in other writings.

Type of Respondent and Student Characteristic Factors

As noted in Chapter Four, the close examination of the significant Type of Respondent by Student Characteristic interaction indicated that, even though the fifth hypothesis was rejected, the three groups of respondents

were substantially the same in the way they rated the CTCPR categories. Only two of the 13 categories varied significantly with the three kinds of respondents (as noted in Chapter Four, overall alpha for the univariate tests was held at .05 making it unlikely that the two categories evidenced significant effects by chance).

When the two significant categories were plotted in Figure 5, one saw that both "Activity Rewards" and "Responsibility Rewards" were rated essentially the same for Average students. On the other three levels of Student Characteristic, the two groups of psychologists were similar in the way they rated categories in all but one case and they varied from the female teachers in only three cases. When one considers that the univariate analyses disclosed only two categories evidenced significant effects and the magnitude of the effects within those two categories were limited, the conclusion that the three types of respondents were essentially the same in their perceptions is tenable. This lends support for the further conclusion that teachers, as implementers of behavior modification programs involving rewards, would find the rewards recommended by school psychologists to be appropriate for use.

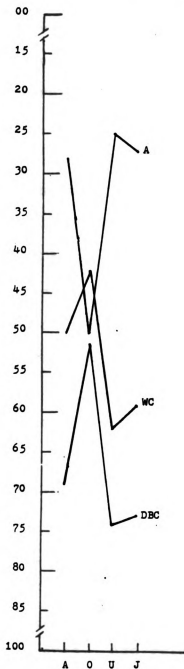
The latter findings adds to the research begun by Kazdin (1980) on the acceptability of different intervention programs of generally equal effectiveness, but possibly favored unequally by implementers.

The general agreement between school psychologists, who are highly trained in behavior modification principles, and regular education teachers, who are less well trained in behavior modification principles, also addresses a research area investigated by Dervensky and Rose (1978).

Dervensky and Rose investigated whether increased training in behavior modification principles might be a factor in changing the perceptions of the preferences for different categories of rewards. Unfortunately, Dervensky and Rose used the PROS pair comparison scale to assess this. As previously argued, the PROS categorization scheme (and therefore the PROS pair comparison scale) has highly questionable validity. That may have contributed to their finding of minimal differences in reward preferences for different categories of rewards among teachers with different amounts of training in behavior modification principles. However, they did raise an interesting issue. The findings of the present study would lead to the conclusion that increased training in behavior modification principles does not affect perceptions of reward preferences. Or, perhaps, experience tends to moderate the effects of academic training.

Since little information is lost by examining the variation of categories by Student Characteristic collapsed across Type of Respondent, and since it makes discussion clearer, that is the direction taken in the following discussion. Figure 6 plots the three categories (taken from

Figure 6. Categories "WC", "DBC" & "A" Plotted by Student Characteristic over Type of Respondent and over Grade



Key: A = Average Academic Achievement
 O = Overcontrolled, Shy Anxious Behavior
 U = Undercontrolled, Acting Out Behavior
 J = Just Barely Passing Academic Achievement

¹Dunn-Rankin (1965) interval scale transformation with lower numbers indicating more preferred categories. Theoretical range is 0.0 to 100 with a mean of 50.

Figure 4) which varied significantly by Student Characteristic. One way to summarize this pattern is to characterize the Overcontrolled student as lower in responsiveness to activity inducements and higher in responsiveness to relatively impersonal rewards. The latter is supported by the relatively lower ranking of the "Close Body Communication Rewards" category. This pattern is not particularly unexpected for an overcontrolled student who typically is described in the literature as having a restricted personality type. The lack of a dramatic difference among the Average, Undercontrolled, and Just Barely Passing students was interesting. The Undercontrolled and the Just Barely Passing students, who present problems to teachers, are not seen as much different from the Average student. Inclusion of the Average level in the design allows one to see that "normal" is not necessarily seen as that different from some types of abnormal or "problem" levels in preferences for rewards.

Chapter Summary

In this chapter, the findings of the current research were synthesized with the findings from previous research in the area. Age-related effects were considered first. Then, the Type of Respondent and Student Characteristic effects were jointly considered.

In the next chapter, the conclusions, the limitations and recommendations for future research, and the implications for practice are presented.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

In this chapter, the conclusions, the limitations and recommendations for future research, and the implications for practice are presented.

CTCPR Categorization Scheme

It is concluded that the CTCPR categorization scheme has demonstrated its construct validity. There is sufficient research support for that conclusion and there is no compelling reason to address further research to that point.

CTCPR Pair Comparison Scale

It is concluded that the CTCPR pair comparison scale has adequate reliability when used with teachers or school psychologists as respondents. However, additional reliability studies involving different types of respondents (e.g., high school students) are recommended before using it with these other types of respondents. For example, it is possible that its reliability will become increasingly attenuated when used with younger respondents.

Age-Related Changes

It is concluded that intrinsic interest in school learning, as represented by the "Intrinsic Rewards" category, is not high at school entry as has been previously assumed. It is perceived by female teachers and by school psychologists as low at school entry and it is perceived to remain low throughout the school years. This means that researchers who have only looked at intrinsic interest in school learning in high school aged children (e.g., Ware, 1978) and found it low cannot conclude that this constituted evidence for a "decline" since they did not investigate the assumption that it was high at school entry. Furthermore, the large body of research investigating possible mechanisms to explain the "decline" (Bates, 1979) may have seriously erred by not first establishing whether or not a "decline" in intrinsic interest in school learning existed.

It is concluded that there is a decline in preference for concrete rewards with increased age. [However, the expected increase in preference for symbolic rewards with increased age was not found. Previous researchers' use of a two-choice contrast between concrete and symbolic rewards may have found an apparent "increase" in preference for symbolic rewards due to the contrast of a stable symbolic reward with a declining concrete reward. A second limitation of the two-choice format is its omission of consideration of complex relations. For example, while it could

show that concrete rewards decline with age, it could not show that concrete rewards remain more preferred than many other categories of rewards even at the 9th grade level. Future research should avoid the two-choice format, where only two types of rewards are considered, whenever possible.

It is concluded that preference for praise, as represented by "Oral Communication Rewards", depends upon which types of student variables are considered. However, praise tends to hold a middle level of preference. Reviews arguing that it is a low preference type of reward (Brophy, 1980) are not supported by the current research.

It is concluded that preference for "Close Body Communication Rewards" declines greatly with increased age. This effect is moderated somewhat for females. An implication is that "Close Body Communication Rewards" are seen as being more preferred in the younger grades, perhaps because of the possibility of sexual connotations of such behavior with older students.

It is concluded that "Activity Rewards" is a generally highly preferred reward for all age levels studied. It is the closest to being an all purpose reward.] (p)

It was concluded that "Shared Rewards" does not increase with age and is not as powerful as an incentive as might be expected with older students. Perhaps, other categories of rewards should be tried before using it.

It is concluded that "Escape Rewards" is a highly preferred category at the older age levels, rivaling "Activity Rewards". However, it was much less preferred at younger age levels. Perhaps the increased control over one's experiences found in the "Escape Rewards" category, is the reason it is seen as more preferred by older students.

Type of Respondent

It is concluded, with some minor qualifications stated in the previous chapter, that female teachers, as implementers of behavior modification programs involving the use of rewards, would find the rewards recommended by school psychologists appropriate for use. Furthermore, since there was no variation between sex of respondent in school psychologists, one might conclude that there is no basis to expect male teachers to differ from female teachers in their perceptions, although this was not investigated.

Student Characteristic

It is concluded that the preferences for rewards of Average, Undercontrolled, and Just Barely Passing types of students are seen as essentially the same by the three types of respondents. The inclusion of the "normal" (i.e., Average) level allows one to see that "normal" is not necessarily seen as different from some types of "problem"

children in preference for rewards.

The Overcontrolled student differed from the remaining three types of students by being lower in responsiveness to activity inducements and higher in responsiveness to relatively impersonal rewards. This is consistent with the general description of an Overcontrolled student as being a restricted personality type.

Implications for Practice

School psychologists and female teachers (male teachers were not assessed) have largely similar perceptions of the kinds of rewards male school children prefer. This agreement is found at the various age-levels and over the various types of student characteristics included in the present study. The implication for practice is that school psychologists, generally speaking, do not have to worry that their recommendations to use certain types of rewards will be disregarded because the teacher thinks that they are not preferred by the student. Of course, the teachers may still resist using recommended rewards on grounds not investigated in this study. For example, the teachers may find certain rewards, although preferred by the students, to be difficult to use in a particular classroom setting. A second implication for practice may help avoid such problems.

The second implication is that the school psychologist now has a "menu" of thirteen categories of rewards with several hundred specific exemplars in total from which the

school psychologist and teacher can choose jointly. This process of reward selection may reduce the chances of an intervention program being dismissed by the teacher because of the teacher's resistance to using a specific reward. The large "menu" may also benefit interventions by providing a variety of rewards for use and thereby help a teacher avoid satiating a student on a specific reward.

Limitations and Recommendations for Future Research

The design of the study focused on school professionals' perceptions of the reward preferences of simulated students. The simulated students' characteristics were carefully described but actual students were not studied. If one assumes that this means that there were no important cohort differences because of this, then inferences about average intraindividual changes could be made. Normally, that would require a longitudinal design. However, since the respondents' were sampled at one point in time, the design has one characteristic of a cross-sectional design. Therefore, it is not as powerful of a design as a true longitudinal design would be.

A second limitation of this research is the lack of a direct measure of children's reward preferences. The reasons justifying this omission have been given previously. It may not be possible to gather this data at all age levels. However, 9th grade children probably

have the capacity to complete the CTCPR pair comparison scale since adolescents have been able to complete the similar PROS pair comparison scale. Such data would shed light on the concordance between school professionals' perceptions of children's reward preferences and children's self-perceptions of the same.

Another possible limitation is the omission of male teacher respondents. However, the fact that the male/female dimension included for school psychologists did not illuminate any differences, suggests that this was not a serious limitation. Also, Fagot's (1981) research suggests that, at least at the Kindergarten level, male teachers do not fit the masculine stereotypes and may be expected to respond similarly as female teachers. Of course, a further empirical check is necessary to fully evaluate this possible limitation.

Thus far in this section, the limitations of the dissertation have been discussed with the suggested research necessary to address them. Next, some research possibilities which address issues not designed to be addressed in this dissertation are mentioned.

One advantage of having a validated categorization system for different categories of rewards is that it has applications beyond those seen in this dissertation. The CTCPR categorization scheme can be used as the basis for an observation scale. Bersoff and Moyer (1976) provide a model for how this is done. The observation scale

LIST OF REFERENCES

can be used to assess questions concerning the types and frequency of rewards actually used in the classroom. For example, Byalick and Bersoff (1974) used the PROS observation schedule to assess reinforcement practices of black and white teachers in integrated classrooms.

Another use of the CTCPR pair comparison scale might be its use as a pre- and post-measure to assess the effects of, say, training in behavior modification, on teachers' preferences.

Chapter Summary

In this chapter, the major conclusions, the limitations and recommendations for future research, and some implications for practice were presented.

LIST OF REFERENCES

- Andersen, C. M. & Barbe, W. B. Classroom activities for modifying misbehavior in children. New York: The Center for Applied Research in Education, Inc. 1974.
- Amidon, E. J., & Flanders, N. A. The roles of the teacher in the classroom. Minn.: Assoc. for Productive Teaching, 1967.
- Bates, J. A. Extrinsic reward and intrinsic motivation: A review with implications for the classroom. Review of Educational Research, 1979, 49, 557-576.
- Becker, W. C., Engelmann, S., & Thomas, D. R. Teaching: A course in applied psychology. Chicago: Science Research Associates, Inc., 1971.
- Bersoff, D. N., & Moyer, D. Positive Reinforcement Observation Schedule (PROS): Development and applications to educational settings. Proceedings of the 81st Annual Convention of the American Psychological Associations, 1973, 8, 713-714. (Summary)
- Bersoff, D. N., & Moyer, D. Positive Reinforcement Observation Schedule (PROS): Development and use. In E. J. Mash and L. G. Terdal (eds), Behavior therapy assessment. New York: Springer, 1976.
- Blackham, G. J., & Silberman, A. Modification of child and adolescent behavior. Belmont, Calif.: Wadsworth Pub. Co., Inc., 1975.
- Brophy, J. E. Teacher Praise: A Functional Analysis. Institute for Research on Teaching, College of Education, Michigan State University, 1980.
- Brophy, J. E., & Good, T. L. Teacher-child dyadic interaction; A manual for coding classroom behavior. Report Series No. 27, Dec. 1969, U. of Texas, Research and Development Center for Teacher Education.
- Byalick, R. & Bersoff, D. N. Reinforcement Practices of black and white teachers in integrated classrooms. Journal of Educational Psychology, 1974, 66, 473-480.

- Clarizio, H. F. Toward positive classroom discipline. New York: John Wiley & Sons, Inc., 1979.
- Clarizio, H. F., & McCoy, G. F. Behavior Disorders in Children, Second Ed. New York: T. Y. Crowell Co. 1976.
- Cohen, J. Statistical power analysis for the behavioral sciences. New York: Academic Press, 1977.
- Derevensky, J. L., & Rose, M. I. Teacher preferences for various positive reinforcements. Psychology in the Schools, 1978, 15, 565-570.
- Dollar, B. Humanizing classroom discipline: A behavioral approach. New York: Harper & Row, Pub., 1972.
- Dunn-Rankin, P. The true probability distribution of the range of rank totals and its applications to psychological scaling. Unpublished doctoral dissertation, Florida State University, 1965.
- Edelbrock, C. Empirical Classification of Children's Behavior Disorders: Progress Based on Parent and Teacher Ratings. School Psychology Digest, 1979, 8, 355-369.
- Edwards, A. L. Techniques of attitude scale construction. New York: Appleton-Century-Crofts, 1957.
- Fagot, B. I. Male and female teachers: Do they treat boys and girls differently? Sex Roles, 1981, 7, 263-271.
- Gardnew, W. I. Children with learning and behavioral problems: A behavior management approach. Boston: Allyn and Bacon, Inc., 1974.
- Goodwin, D. L. & Coates, D. L. Helping students help themselves. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1976.
- Guilford, J. P. Psychometric methods. New York: McGraw-Hill, 1936.
- Haaf, R. A., & Smith, J. A. Developmental differences in reinforcer preferences value and in learning-set performance under inconsistent reward. Child Development, 1976, 47, 375-379.
- Haring, N. G., & Phillips, E. L. Analysis and modification of classroom behavior. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1972.

- Harter, S. Mental age, IQ, and motivational factors in the discrimination learning set performance of normal and retarded children. Journal of Experimental Child Psychology, 1967, 5, 123-141.
- Harter, S., & Zigler, E. The assessment of effectance motivation in normal and retarded children. Developmental Psychology, 1974, 10, 169-180.
- Horst, P. A method for determining the absolute affective value of a series of stimulus situations. Journal of Educational Psychology, 1932, 23, 418-440.
- Kazdin, A. E. Behavior modification in applied settings. Homewood, Ill.: The Dorsey Press, 1975.
- Kazdin, A. E. Acceptability of alternative treatments for deviant child behavior. Journal of Applied Behavior Analysis, 1980, 13, 259-273.
- Loveland, K. K., & Olley, J. G. The effect of external reward on interest and quality of task performance in children of high and low intrinsic motivation. Child Development, 1979, 50, 1207-1210.
- MacMillan, D. L. Behavior modification: A teacher strategy to control behavior. Report of the Proceedings of the Forty-fourth Meeting of the Convention of American Instructors of the Deaf. Berkeley, Calif.: 1968. pp. 66-76.
- Madsen, C. K., & Madsen, C. H. Teaching/Discipline: Behavioral principles toward a positive approach. Boston: Allyn and Bacon, Inc., 1970.
- Maehr, M. L. Continuing motivation: An analysis of a seldom considered educational outcome. Review of Educational Research, 1976, 46, 443-462.
- Martin, R., & Lauridsen, D. Developing student discipline and motivation. Champaign, Ill.: Research Press, 1974.
- McLoyd, V. C. The effects of extrinsic rewards of differential value on high and low intrinsic interest. Child Development, 1979, 50, 1010-1019.
- Mischel, W., & Metznew, R. Preference for delayed reward as a function of age, intelligence, and length of delay interval. Journal of Abnormal and Social Psychology, 1962, 64, 425-431.

- Neisworth, J. T., Deno, S. L., & Jenkins, J. R. Student motivation and classroom management: A behavioristic approach. Newark, Delaware: Behavior Technics, Inc., 1969.
- Nisan, M. Exposure to rewards and the delay of gratification. Developmental Psychology, 1974, 10, 376-380.
- O'Leary, K. D., & Becker, W. C. Behavior modification of an adjustment class: A token reinforcement program. Exceptional Children, 1967, 33, 737-742.
- Piper, T. Classroom management and behavioral objectives: Applications of behavior modification. Belmont, Calif.: Lear Siegler, Inc., 1974.
- Scheifley, V. M., & Schmidt, W. H. Jeremy D. Finn's Multivariate -- Univariate and multivariate analysis of variance, covariance, and regression modified and adapted for use on the CDC 6500. Occasional Paper No. 22, Office of Research Consultation, School for Advanced Studies, College of Education, Michigan State University, 1973.
- Sulzer-Azaroff, B., & Mayer, G. R. Applying behavior-analysis procedures with children and youth. New York: Holt, Rinehart and Winston, 1977.
- Tharp, R. G., & Wetzel, R. J. Behavior modification in natural environments. New York: Brooks/Cole, 1969.
- Thurstone, L. L. Psychophysical analysis. American Journal of Psychology, 1927a, 38, 368-389. (Also in Thurstone, L. L. The measurement of values. Chicago: U. Chicago Press, 1959. Pp. 19-38.)
- Thurstone, L. L. A law of comparative judgment. Psychological Review. 1927b, 34, 273-286. (Also in Thurstone, 1959, Pp. 39-49.)
- Thurstone, L. L., & Jones, L. V. The rational origin for measuring subjective values. Journal of the American Statistical Association, 1957, 52, 458-471. (Also in Thurstone, 1959. Pp. 195-210.)
- Van Treese, J. C. A study of teacher perceptions of reward preferences of K, 3rd, and 6th graders by sex and achievement. Apprenticeship Report, Michigan State University, 1980.

Walker, J. E., & Shea, T. M. Behavior modification: A practical approach for educators. St. Louis: C. V. Mosby, Co., 1976.

Walls, R. T. Delay of reinforcement development. Child Development, 1973, 44, 689-692.

Weisz, J. R. Coosing problem-solving rewards and halloween prizes: Delay of gratification and preference for symbolic reward as a function of development, motivation and personal investment. Developmental Psychology, 1978, 14, 66-78.

APPENDIX A
ORIGINAL PROS PAIR COMPARISON SCALE

DIRECTIONS: Defined below are 14 categories that may be possibly subsumed under the rubric of positive reinforcement as administered by a teacher. The aim of this scale is to determine which of these categories you consider to be the most positive reinforcers with children.

In filling out the scale use the following definition of positive reinforcement: Behavior by teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose the one word or phrase from each pair that you judge to be the most potent positive reinforcer. Circle the letter in front of the word that you choose from each pair. Thus, in the following example, if you prefer kissing to hugging, your selection would be marked like this:

- A. Kissing
B. Hugging

Go rapidly but carefully. Do not go back once you have made a choice. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

DEFINITIONS

(Please read before completing scale)

Aiding by Example: Demonstration of appropriate behavior by the teacher when the child is either non-responsive or incorrect in exhibiting expected response.

Positive Facial Attention: Looking at a child when teacher is smiling or attending to what the child is doing or what the child has to say (teacher might nod head, wink, or give other indication of approval while smiling). Concerted looking or attending to a child also belongs in this category.

Accepts Feelings: Teacher accepts and clarifies the feeling tone of the child in a non-threatening manner. Feelings or student emotions may be positive or negative. Predicting or recalling feelings is included. The teacher accepts feelings when he says he understands how the child feels, that he has a right to these feelings, and that he will not punish the child for his feelings.

Admonishment: Verbal response by a teacher indicating to a child that his responses are incorrect, unacceptable, or inappropriate, such as "No," "You're being bad," "That's wrong."

Positive Physical Contact: Actual physical contact such as patting, embracing, holding arms, taking hand, etc.

Accepts Ideas: Clarifying, building, or developing ideas suggested by the child. Teacher may paraphrase the student's statement, restate the idea more simply, or summarize what the student has said. The key teacher behaviors are clarifying and developing ideas. Simple restatement without building such as when teacher verbalizes student answer during recording on blackboard or test booklet is not scored.

Rapport-Praise: Evaluative reactions which go beyond the teacher's level of simple affirmation or positive feedback by verbally complimenting the child. Rapport-Praise communicates a positive evaluation or a warm personal reaction to the child and not merely an impersonal communication. Teacher responses are considered RP if the verbal content (Yes, Umhm, Fine, Good, Right) or nonverbal content (Headnod) is accompanied by nonverbal communication of warmth, joy, or excitement.

Affirmation of Appropriate Behavior: Verbal contact indicating approval, commendation to a child that his responses are correct or acceptable, or that his behavior is appropriate. Verbal affirmation may either be loud or soft, and consists of such examples as "That's good," "Fine," "You're studying well."

Administration of Concrete Rewards (Direct): Giving of direct concrete rewards such as candy, money, or free time. This category also consists of those instances when the teacher gives concrete but symbolic rewards (such as giving flashcard to a child contingent upon correct answer to that card) which have no backup or other value.

Administration of Concrete Rewards (Toker): Giving of symbolic rewards which will be redeemed for direct concrete rewards at some future time. Common examples are poker chips, tallies, colored sticks, stars, stickers, etc.

Asks Questions: Asking questions by teacher/tester following student behavior concerning that behavior. In this category neither positive nor negative evaluation of the child is present in the question.

Adjuvant Mastery: Urging, prompting, fostering, promoting confidence and success, providing encouragement for response production. When the child refuses to answer, the teacher may suggest guessing, give encouragement ("You just got the last one") or systematically employ a graded series of suggestions.

Negative Facial Attention: Nonverbal response by the teacher indicating to a child that his responses are incorrect, unacceptable, or inappropriate, such as frowning, grimacing, shaking head, pointing finger.

Non-Germene Verbal Response: A response by the teacher which is neither criticism nor affirmation of behavior initiated by the child.

REMINDER: CIRCLE THE LETTER OF THE PHRASE YOU CHOOSE

- | | |
|---------------------------------|----------------------------------|
| 1A. Aiding by Example | 17A. Accepts Ideas |
| 1B. Asks Questions | 17B. Concrete Reinf. (Token) |
| 2A. Rapport-Praise | 18A. Admonishment |
| 2B. Negative Facial Attention | 18B. Accepts Feelings |
| 3A. Concrete Reinf. (Token) | 19A. Positive Facial Attention |
| 3B. Positive Facial Attention | 19B. Accepts Ideas |
| 4A. Accepts Feelings | 20A. Concrete Reinf. (Direct) |
| 4B. Non-Germans Verbal Response | 20B. Admonishment |
| 5A. Rapport-Praise | 21A. Accepts Feelings |
| 5B. Accepts Ideas | 21B. Positive Facial Attention |
| 6A. Concrete Reinf. (Token) | 22A. Adjuvant Mastery |
| 6B. Aiding by Example | 22B. Positive Physical Contact |
| 7A. Accepts Ideas | 23A. Positive Physical Contact |
| 7B. Non-Germans Verbal Response | 23B. Positive Facial Attention |
| 8A. Rapport-Praise | 24A. Concrete Reinf. (Direct) |
| 8B. Admonishment | 24B. Accepts Ideas |
| 9A. Accepts Ideas | 25A. Asks Questions |
| 9B. Asks Questions | 25B. Adjuvant Mastery |
| 10A. Admonishment | 26A. Adjuvant Mastery |
| 10B. Positive Physical Contact | 26B. Admonishment |
| 11A. Positive Physical Contact | 27A. Admonishment |
| 11B. Accepts Ideas | 27B. Affirm. of Approp. Behavior |
| 12A. Concrete Reinf. (Token) | 28A. Affirm. of Approp. Behavior |
| 12B. Admonishment | 28B. Concrete Reinf. (Token) |
| 13A. Aiding by Example | 29A. Concrete Reinf. (Direct) |
| 13B. Accepts Feelings | 29B. Asks Questions |
| 14A. Positive Facial Attention | 30A. Non-Germans Verbal Response |
| 14B. Affirm of Approp. Behavior | 30B. Aiding by Example |
| 15A. Concrete Reinf. (Direct) | 31A. Aiding by Example |
| 15B. Positive Facial Attention | 31B. Concrete Reinf. (Direct) |
| 16A. Adjuvant Mastery | 32A. Adjuvant Mastery |
| 16B. Concrete Reinf. (Direct) | 32B. Affirm. of Approp. Behavior |

33A. Positive Physical Contact	50A. Negative Facial Attention
33B. Concrete Reinf. (Token)	50B. Admonishment
34A. Rapport-Praise	51A. Accepts Ideas
34B. Positive Physical Contact	51B. Negative Facial Attention
35A. Positive Physical Contact	52A. Admonishment
35B. Asks Questions	52B. Accepts Ideas
36A. Affirm. of Approp. Behavior	53A. Aiding by Example
36B. Concrete Reinf. (Direct)	53B. Rapport-Praise
37A. Affirm. of Approp. Behavior	54A. Negative Facial Attention
37B. Accepts Ideas	54B. Aiding by Example
38A. Affirm of Approp. Behavior	55A. Adjuvant Mastery
38B. Positive Physical Contact	55B. Concrete Reinf. (Token)
39A. Accepts Feelings	56A. Accepts Ideas
39B. Asks Questions	56B. Aiding by Example
40A. Aiding by Example	57A. Accepts Ideas
40B. Admonishment	57B. Adjuvant Mastery
41A. Non-Germans Verbal Response	58A. Admonishment
41B. Adjuvant Mastery	58B. Non-Germans Verbal Response
42A. Aiding by Example	59A. Rapport-Praise
42B. Adjuvant Mastery	59B. Non-Germans Verbal Response
43A. Positive Physical Contact	60A. Rapport-Praise
43B. Aiding by Example	60B. Accepts Feelings
44A. Negative Facial Attention	61A. Positive Facial Attention
44B. Accepts Feelings	61B. Rapport-Praise
45A. Adjuvant Mastery	62A. Accepts Feelings
45B. Rapport-Praise	62B. Concrete Reinf. (Token)
46A. Positive Physical Contact	63A. Accepts Feelings
46B. Non-Germans Verbal Response	63B. Adjuvant Mastery
47A. Positive Facial Attention	64A. Affirm of Approp. Behavior
47B. Aiding by Example	64B. Aiding by Example
48A. Concrete Reinf. (Direct)	65A. Concrete Reinf. (Direct)
48B. Non-Germans Verbal Response	65B. Accepts Feelings
49A. Asks Questions	66A. Non-Germans Verbal Response
49B. Negative Facial Attention	66B. Asks Questions

67A. Negative facial Attention	80A. Adjuvant Mastery
67B. Concrete Reinf. (Direct)	80B. Negative Facial Attention
68A. Concrete Reinf. (Token)	81A. Negative Facial Attention
68B. Non-Germans Verbal Response	81B. Positive Physical Contact
69A. Concrete Reinf. (Token)	82A. Positive Facial Attention
69B. Asks Questions	82B. Non-Germans Verbal Response
70A. Accepts Feelings	83A. Rapport-Praise
70B. Accepts Ideas	83B. Affirm. of Approp. Behavior
71A. Non-Germans Verbal Response	84A. Concrete Reinf. (Direct)
71B. Affirm. of Approp. Behavior	84B. Rapport-Praise
72A. Negative Facial Attention	85A. Admonishment
72B. Non-Germans Verbal Response	85B. Asks Questions
73A. Affirm. of Approp. Behavior	86A. Affirm. of Approp. Behavior
73B. Accepts Feelings	86B. Concrete Reinf. (Direct)
74A. Positive Facial Attention	87A. Concrete Reinf. (Direct)
74B. Admonishment	87B. Concrete Reinf. (Token)
75A. Positive Physical Contact	88A. Adjuvant Mastery
75B. Accepts Feelings	88B. Positive Facial Attention
76A. Negative Facial Attention	89A. Negative Facial Attention
76B. Positive Facial Attention	89B. Affirm. of Approp. Behavior
77A. Asks Questions	90A. Rapport-Praise
77B. Affirm. of Approp. Behavior	90B. Concrete Reinf. (Token)
78A. Concrete Reinf. (Token)	91A. Asks Questions
78B. Negative Facial Attention	91B. Positive Facial Attention
79A. Rapport-Praise	
79B. Asks Questions	

APPENDIX B
PROS PAIR COMPARISON SCALE AS
REWORDED FOR ADOLESCENT DELINQUENTS

POSITIVE REINFORCEMENT PREFERENCE SCALE

DIRECTIONS: Defined below are 14 categories that may come under the idea of positive reinforcement or positive actions that people use in relating to change another's behavior. The aim of this scale is to determine which of these categories you consider to be the most potent positive reinforcers with your peers.

In filling out the scale use the following definition of positive reinforcement: Behavior by a peer following a student's response for the purpose of strengthening, accelerating, promoting or increasing appropriate, correct or desirable student behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose the one word or phrase from each pair that you judge to be the most potent or effective positive reinforcer. Cross out the letter in front of the word that you choose from each pair. Thus, in the following example, if you prefer kissing to hugging, your selection could be marked like this:

- A. Kissing
- B. Hugging

Go rapidly but carefully. Do not go back once you have made a choice. No pairs are repeated. In cases of difficulty, let first impressions count.

DEFINITIONS

(Please read before completing scale)

Aiding by Example: Demonstration of correct or appropriate behavior by a peer when the student is either non-responsive or incorrect in exhibiting or showing the expected response. For example, helping someone read or write a letter, setting an example, breaking it down, etc.

Positive Facial Attention: Looking at a student when a peer is smiling or paying attention to what the student is doing or what the student has to say. Positive signifying. This is not bogarting or dipping.

Accepts Feelings: Peer accepts and clarifies the feeling tone of the student in a non-threatening manner. Feelings or student emotions may be positive or negative. Predicting or recalling feelings when he says he understands how the student feels, that he has a right to these feelings.

Admonishment: Verbal response by a peer indicating or showing to a student that his behavior is incorrect, unacceptable or inappropriate such as "No," "That's wrong," "Be cool," "lay man."

Positive Physical Contact: Actual positive physical contact, such as, "give me five," and a pat on the back.

Accepts Ideas: Clarifying, building, or developing ideas suggested by a student. Peer may say what the student said but in his own words, or the peer may restate the idea more simply or summarize what the student said. The key peer behaviors are clarifying and developing ideas. For example, someone may bring up a subject and a peer picks it up and starts talking about it.

Approval of Appropriate Behavior: Verbal approval to a student that his behavior is correct and acceptable. Verbal approval may either be loud or soft. For example, "That's good," "Fine," "Right on," "Solid," "Bad," "Crazy."

Rapport-Praise: Saying things or complimenting someone with deep feelings or sentiment showing warmth, joy, or excitement. This category includes both verbal and physical positive reinforcement. For example, when a peer "breaks up" in a positive manner over something a student said or did.

Administration of Concrete Reward (Direct): Giving of direct concrete rewards, such as, "grunch," cigarettes (smoked right away), clothes, records.

Administration of Concrete Rewards (Token): Giving of symbolic rewards which will be redeemed for direct concrete rewards at some future time. For example, poker chips, IOU's.

Asks Questions: Asking questions by peer following student behavior concerning that behavior. In this category neither positive nor negative evaluation of the student is present in the question.

Adjuvant Mastery: Urging prompting, fostering, promoting confidence and success, providing encouragement for behavior. For example, blowing a student's head up constructively for something worthwhile, or "socking it to him."

Negative Facial Attention: Non-verbal (physical) response by a peer indicating to a student that his behavior is incorrect, unacceptable or inappropriate, such as, frowning, shaking head, pointing finger, "To bull-dog," or negative "signifying."

Non-Germene Verbal Response: A response by a peer which is neither criticism or approval of behavior started by the student. For example, changing the subject, "That's another something," "off-the-wall jive talk."

REMINDER: CIRCLE THE LETTER OF THE PHRASE YOU CHOOSE

- | | |
|---------------------------------|----------------------------------|
| 1A. Aiding by Example | 17A. Accepts Ideas |
| 1B. Asks Questions | 17B. Concrete Reinf. (Token) |
| 2A. Rapport-Praise | 18A. Admonishment |
| 2B. Negative Facial Attention | 18B. Accepts Feelings |
| 3A. Concrete Reinf. (Token) | 19A. Positive Facial Attention |
| 3B. Positive Facial Attention | 19B. Accepts Ideas |
| 4A. Accepts Feelings | 20A. Concrete Reinf. (Direct) |
| 4B. Non-Germans Verbal Response | 20B. Admonishment |
| 5A. Rapport-Praise | 21A. Accepts Feelings |
| 5B. Accepts Ideas | 21B. Positive Facial Attention |
| 6A. Concrete Reinf. (Token) | 22A. Adjuvant Mastery |
| 6B. Aiding by Example | 22B. Positive Physical Contact |
| 7A. Accepts Ideas | 23A. Positive Physical Contact |
| 7B. Non-Germans Verbal Response | 23B. Positive Facial Attention |
| 8A. Rapport-Praise | 24A. Concrete Reinf. (Direct) |
| 8B. Admonishment | 24B. Accepts Ideas |
| 9A. Accepts Ideas | 25A. Asks Questions |
| 9B. Asks Questions | 25B. Adjuvant Mastery |
| 10A. Admonishment | 26A. Adjuvant Mastery |
| 10B. Positive Physical Contact | 26B. Admonishment |
| 11A. Positive Physical Contact | 27A. Admonishment |
| 11B. Accepts Ideas | 27B. Affirm. of Approp. Behavior |
| 12A. Concrete Reinf. (Token) | 28A. Affirm. of Approp. Behavior |
| 12B. Admonishment | 28B. Concrete Reinf. (Token) |
| 13A. Aiding by Example | 29A. Concrete Reinf. (Direct) |
| 13B. Accepts Feelings | 29B. Asks Questions |
| 14A. Positive Facial Attention | 30A. Non-Germans Verbal Response |
| 14B. Affirm of Approp. Behavior | 30B. Aiding by Example |
| 15A. Concrete Reinf. (Direct) | 31A. Aiding by Example |
| 15B. Positive Facial Attention | 31B. Concrete Reinf. (Direct) |
| 16A. Adjuvant Mastery | 32A. Adjuvant Mastery |
| 16B. Concrete Reinf. (Direct) | 32B. Affirm. of Approp. Behavior |

33A. Positive Physical Contact	50A. Negative Facial Attention
33B. Concrete Reinf. (Token)	50B. Admonishment
34A. Rapport-Praise	51A. Accepts Ideas
34B. Positive Physical Contact	51B. Negative Facial Attention
35A. Positive Physical Contact	52A. Admonishment
35B. Asks Questions	52B. Accepts Ideas
36A. Affirm. of Approp. Behavior	53A. Aiding by Example
36B. Concrete Reinf. (Direct)	53B. Rapport-Praise
37A. Affirm. of Approp. Behavior	54A. Negative Facial Attention
37B. Accepts Ideas	54B. Aiding by Example
38A. Affirm of Approp. Behavior	55A. Adjuvant Mastery
38B. Positive Physical Contact	55B. Concrete Reinf. (Token)
39A. Accepts Feelings	56A. Accepts Ideas
39B. Asks Questions	56B. Aiding by Example
40A. Aiding by Example	57A. Accepts Ideas
40B. Admonishment	57B. Adjuvant Mastery
41A. Non-Germans Verbal Response	58A. Admonishment
41B. Adjuvant Mastery	58B. Non-Germans Verbal Response
42A. Aiding by Example	59A. Rapport-Praise
42B. Adjuvant Mastery	59B. Non-Germans Verbal Response
43A. Positive Physical Contact	60A. Rapport-Praise
43B. Aiding by Example	60B. Accepts Feelings
44A. Negative Facial Attention	61A. Positive Facial Attention
44B. Accepts Feelings	61B. Rapport-Praise
45A. Adjuvant Mastery	62A. Accepts Feelings
45B. Rapport-Praise	62B. Concrete Reinf. (Token)
46A. Positive Physical Contact	63A. Accepts Feelings
46B. Non-Germans Verbal Response	63B. Adjuvant Mastery
47A. Positive Facial Attention	64A. Affirm of Approp. Behavior
47B. Aiding by Example	64B. Aiding by Example
48A. Concrete Reinf. (Direct)	65A. Concrete Reinf. (Direct)
48B. Non-Germans Verbal Response	65B. Accepts Feelings
49A. Asks Questions	66A. Non-Germans Verbal Response
49B. Negative Facial Attention	66B. Asks Questions

APPENDIX C
CTCPR CATEGORY VALIDITY STUDY

DIRECTIONS

Defined below are 14 categories of reinforcers which can be used by a teacher. Please read the definitions carefully. Next, read each of the 431 possible exemplars of a particular category and assign each exemplar to a category. Indicate your choice by placing the code letters of the chosen category on the line which follows each exemplar. An example of an exemplar coded in the CE Concrete Edible Rewards category is given below.

I. Get a donut..... CE

In cases of difficulty, assign the exemplar to the most appropriate category.

DEFINITIONSCE Concrete Edible Rewards

This category contains all substances which are normally taken into the human body. For example, the teacher might reward a student by giving him or her a piece of candy, a donut, a cola, or a gumbdrop.

CN Concrete Non-Edible Rewards

This category contains all objects which are tangible and which are not usually taken into the human body. They are not intentionally presented as representing or symbolizing something beyond themselves. For example, the teacher might reward a student by giving him or her some crayons, a pencil, a comic book, a small toy, or a record. Non-examples are certificates of merit, stars, and tokens.

RS Redeemable Symbolic Rewards

This category contains all objects and symbols which can be earned and subsequently exchanged for a reinforcer from another category. For example, the teacher might give the student a token (i.e., poker chip, tally mark, colored stick, etc.) which the student can later exchange for a reinforcer from another category. Graphs indicating achievement levels are also contained in this category providing the student can select a reinforcer when a designated point on the graph is reached.

N-RS Non-Redeemable Symbolic Rewards

This category contains all objects and symbols which are symbolic of desired performance but which cannot be redeemed for a reinforcer from another category. For example, the teacher might make a graph of good behavior without any other rewards. Or, the teacher might give the student a star, a good grade, a check mark, or a happy face sticker.

OC Oral Communication Rewards

This category contains all positive teacher verbalizations. For example, the teacher might reward a student by saying "that's great", "good job", "fine answer", or "far out".

WC Written Communication Rewards

This category contains all positive written words. For example, the teacher might write "that's great" or "good job" on a good paper. Or, the teacher might send a positive note home concerning good work.

CBC Close Body Communication Rewards

This category contains all physical gestures or "body language" which involve actual physical contact. For example, the teacher might reward a student by giving the student a pat on the back, a hug, a tickle, a handshake, or a kiss.

DBC Distant Body Communication Rewards

This category contains all physical gestures or "body language" which can be understood without physical contact. For example, the teacher might reward a student by giving the student a smile, a nod, a wink, or a "thumbs up" sign.

R Responsibility Rewards

This category includes all "adult-like" responsibilities given to a student as a reward such as safety patrol member, line monitor, tutoring other children, and helping with classroom maintenance.

IA Individual Activity Rewards

This category contains all activities which are done alone and which do not fall into the R Responsibility Rewards category. For example, the teacher might reward a student by letting him or her do some activity which carries no responsibility and which he or she can do alone such as finger painting, reading, or napping.

SA Shared Activity Rewards

This category contains all activities which cannot be done alone and which do not fall into the R Responsibility Rewards category. For example, the teacher might reward a student by letting him or her do some activity which carries no responsibility and which he or she cannot do alone such as talking to a friend, playing checkers, playing scrabble, playing teeter-totter, or using a phone.

S Shared Rewards

This category refers to any reward which when obtained is shared or given away. For example, the teacher might reward a student by letting him or her earn a small toy for a sibling or a disadvantaged child. Also included here would be any activity where a student wins points (or something else) for a group which he is a member of.

E Escape Rewards

This category includes privileges which allow a student to avoid an aversive situation or event. For example, the teacher might reward a student by exempting him or her from a test, eliminating a homework assignment, or early dismissal from class.

I Intrinsic Rewards

This category includes those cases in which the student is doing a task which he or she finds enjoyable all by itself. Examples are "learning for learning's sake", and "working for a sense of competence".

EXAMPLAR

CATEGORY

1. Earn "points" for a group.....
2. Get to go home early.....
3. Get a toy badge.....
4. Teacher signs good paper.....
5. Earn small toy for sibling.....
6. Watching TV alone.....
7. Get a good grade.....
8. I agree (written by teacher).....
9. See how you's improving (written by teacher).....
10. Get an apple.....
11. Get double "AA's".....
12. I agree (spoken by teacher).....
13. Teacher claps hands (applauds).....
14. Get extra lunch time.....
15. Get a ball.....
16. Listening to story record with headset.....
17. Get a balloon.....
18. Get some baby food.....
19. Get out of class early.....
20. Get some blocks.....
21. Teacher nods head up and down.....
22. Get a toy boat.....
23. Earn small toy for disadvantaged children.....
24. Shake hands with teacher.....
25. Get an animal puzzle.....
26. Get a candy bar.....
27. Teacher orienting glance directly toward child's face.....
28. Teacher holds child's hand.....
29. Get a puzzle (1000 pieces).....
30. Get a carrot stick.....
31. Learn for the love of it.....
32. Get a redeemable poker chip.....
33. Earn small toy for friend.....
34. Get a celery stick.....
35. Teacher gives signal or gesture of approval.....
36. Get a padlock.....
37. Teacher smiles at child.....
38. Help earn a field trip for the class.....
39. Teacher holds child on lap.....
40. Teacher sends note home regarding good behavior...
41. Get smiling face put on good paper.....
42. Use microscope alone.....
43. Get to make a puzzle alone.....
44. Get some cereal.....
45. Get some cheese.....
46. Get a bike lock.....
47. Get a chocolate kiss.....
48. Make a construction project alone.....

49. Get a cookie.....
50. Atta-boy or atta-girl (written by teacher).....
51. Redeemable match sticks.....
52. Get marbles.....
53. Get calendar.....
54. I feel good when you do well (spoken by teacher).....
55. Oh boy (written by teacher).....
56. Get an eraser.....
57. Good work (written by teacher).....
58. Redeemable coins.....
59. Get a model kit.....
60. Get a toy figure (e.g., animal, soldier, cowboy).....
61. Very good (written by teacher).....
62. Teacher throws child a kiss.....
63. Get a cracker.....
64. That shows a lot of work (spoken by teacher).....
65. Teacher hugs child.....
66. Get a cupcake.....
67. Working for a sense of competence.....
68. Get some fruit.....
69. Good job (spoken by teacher).....
70. Teacher kisses child.....
71. Get some fruit juice.....
72. Learning just for itself.....
73. Looking out the window.....
74. Walking around in back of the rool alone.....
75. I feel good when you do well (written by teacher).....
76. Teacher winks at child.....
77. Get some grapes.....
78. Get a toy car.....
79. Being able to attend other subject area classes
for the group.....
80. Get a whistle.....
81. Good work (spoken by teacher).....
82. Wonderful (spoken by teacher).....
83. Fine answer (spoken by teacher).....
84. Yeah (spoken by teacher).....
85. Wow (written by teacher).....
86. You do that well (spoken by teacher).....
87. Get some gum.....
88. Get some gumdrops.....
89. Get some ice cream.....
90. Right on (spoken by teacher).....
91. Okay (written by teacher).....
92. Get rubber stamp of animal pictures on good work.....
93. Learning being its own reward.....
94. Get a noisemaker.....
95. Window manager.....
96. Beautiful (written by teacher).....
97. Bathroom supervisor at end of recess.....
98. How clever (spoken by teacher).....
99. Get some jelly beans.....
100. That's interesting (written by teacher).....

101. That was kind of you (spoken by teacher).....
102. Be in charge of room clean-up.....
103. Teaching another child (i.e., designated tutor).....
104. Can be a member of the class council.....
105. Get toy musical instrument.....
106. Get a gold star.....
107. Telling a joke to the class.....
108. Doing artwork alone.....
109. During map time, the child is allowed to play
instead of napping.....
110. Teacher gives child a pat on the back.....
111. Going to an assembly program.....
112. Being in a skit.....
113. Celebrating a holiday in class.....
114. Get some kool-aid.....
115. Teacher gives child a pat on the head.....
116. Child makes up a quiz, administers it to the rest
of the class, and then schores and grades it.....
117. Special award certificate.....
118. Early dismissal to be first in line for lunch.....
119. Being a pen pal.....
120. Exactly (spoken by teacher).....
121. That's interesting (spoken by teacher).....
122. You do that well (written by teacher).....
123. Using the telephone.....
124. Get a toy plane.....
125. Get a kite.....
126. Get a coloring book.....
127. You've got the right idea (written by teacher).....
128. Get a record.....
129. Get some lemon drops.....
130. Be manager of the class store.....
131. Special award diploma.....
132. Shopping for the class store.....
133. Performing for parents.....
134. Playing charades.....
135. Teacher gives child a pat on the knee.....
136. Using colored chalk alone.....
137. Get a lollipop.....
138. Redeemable play money.....
139. Going on a field trip with the class.....
140. I am proud of you (spoken by teacher).....
141. Listening to the radio or phonograph with headset.....
142. Early dismissal to be first in line for busses.....
143. Teacher gives child a pat on the shoulder.....
144. Get a funny mask.....
145. Take a nap.....
146. I like that (written by teacher).....
147. Get some marshmallows.....
148. Get some milk.....
149. Get a costume.....
150. It's a pleasure having you in class (spoken).....
151. Good for you (spoken by teacher).....

152. Good idea (written by teacher).....
153. Conducting some class activity (e.g., an auction, show-and-tell, leading class in flag salute).....
154. Get some mints.....
155. Class party.....
156. Get some M&M's.....
157. Get some olives.....
158. Dancing.....
159. Redeemable checks.....
160. Using a typewriter.....
161. Looking at a teen magazine.....
162. Teacher puts hand on student's shoulder.....
163. Great (written by teacher).....
164. Get a frisbee.....
165. Get a baseball card.....
166. Special award ribbon.....
167. Redeemable points.....
168. Get a football card.....
169. Get some toy jacks.....
170. Having a box lunch auction.....
171. Get some peanuts.....
172. Helping the custodian.....
173. Be a classroom "media helper" (e.g., run projector).....
174. Get a jump rope.....
175. Good job (written by teacher).....
176. Get a special award tag.....
177. Blowing bubbles alone.....
178. Great (spoken by teacher).....
179. Fantastic (spoken by teacher).....
180. Much better (spoken by teacher).....
181. Yes (written by teacher).....
182. Right (written by teacher).....
183. Get some pickles.....
184. Superb (written by teacher).....
185. Get a special award button.....
186. Blowing up a balloon.....
187. Student drawing on steamed-up windows with finger.....
188. Redeemable token.....
189. Name on honor roll.....
190. Writing a letter.....
191. Get a toy magnet.....
192. Extension or inclusion of enjoyable classroom activities such as gym, art, music and recess....
193. Sterling (written by teacher).....
194. Outstanding (spoken by teacher).....
195. Teacher ruffles student's hair.....
196. Display child's picture for good work.....
197. Display good work.....
198. Nice (written by teacher).....
199. Free "thinking" time instead of doing work.....
200. Extra library time.....
201. That's nice (spoken by teacher).....

- 202. Very fine (spoken by teacher).....
- 203. Far out (written by teacher).....
- 204. Get an address book.....
- 205. Correct (written by teacher).....
- 206. Excellent (written by teacher).....
- 207. Marvelous (written by teacher).....
- 208. Thank you (written by teacher).....
- 209. Unbelievable (spoken by teacher).....
- 210. Thank you (spoken by teacher).....
- 211. Free time to work on projects.....
- 212. Daydreaming time.....
- 213. Helping in the cafeteria.....
- 214. Being teacher for a lesson.....
- 215. Playing tic-tac-toe.....
- 216. Rocking in a rocking chair.....
- 217. Get some popcorn.....
- 218. Teacher strokes student's arm.....
- 219. Behavior and achievement charts which give visual
evidence of progress with no back-up reinforcers.
- 220. Using portable computer alone.....
- 221. Putting head down and resting.....
- 222. Being first at show-and-tell.....
- 223. Appearing as a guest lecturer in other classes...
- 224. Talking to a classmate.....
- 225. Nobody else thought of that (spoken by teacher)..
- 226. Your explanation was crystal clear (written by
teacher).....
- 227. That's better than last time (spoken by teacher).
- 228. Being part of a group discussion.....
- 229. You are really creative (written by teacher).....
- 230. Okay (spoken by teacher).....
- 231. Correcting papers for teacher.....
- 232. Yeah (written by teacher).....
- 233. Fine answer (written by teacher).....
- 234. Wonderful (written by teacher).....
- 235. Being part of a supervised Tug of War.....
- 236. Be in charge of passing out papers and other
class materials.....
- 237. Get a squirt gun.....
- 238. Behavior and achievement charts which give visual
evidence of progress and which can be exchanged
for back-up reinforcers.....
- 239. Exemption from a quiz.....
- 240. Playing piano alone.....
- 241. Teacher tickles child.....
- 242. Get some potato chips.....
- 243. Using view master.....
- 244. Get some pretzels.....
- 245. Get a yo yo.....
- 246. Get a paperweight.....
- 247. Get a key chain.....
- 248. Get some Scout equipment.....
- 249. Reading a library book silently.....

250. Showing pictures to the class.....
251. Being excused from a test.....
252. Helping the librarian.....
253. Yes (spoken by teacher).....
254. Supervising a group outside of class.....
255. Atta-boy or Atta-girl (spoken by teacher).....
256. Very good (spoken by teacher).....
257. Good for you (written by teacher).....
258. Good idea (spoken by teacher).....
259. Being a team captain.....
260. Fantastic(written by teacher).....
261. Much better (written by teacher).....
262. Being stage manager for class play.....
263. Cutting and pasting alone.....
264. Using punching bag alone.....
265. Playing pinball alone.....
266. Get a piece of toy jewelry.....
267. Get some pudding.....
268. Get a school T-shirt.....
269. Get a soft drink.....
270. Right (spoken by teacher).....
271. Superb (spoken by teacher).....
272. Sterling (spoken by teacher).....
273. Nice (spoken by teacher).....
274. Being the class messenger.....
275. Singing in a group.....
276. Teacher touches child on the cheek.....
277. Getting to move to a "better" place.....
278. Playing checkers.....
279. Special jobs assigned to student (e.g., roll
taker, bulletin board designer, blackboard and
eraser cleaner).....
280. Outstanding (written by teacher).....
281. Walking barefoot alone.....
282. Creative writing.....
283. Very nice (spoken by teacher).....
284. Terrific (spoken by teacher).....
285. Terrific (written by teacher).....
286. Fine (spoken by teacher).....
287. Playing with trucks alone.....
288. Get a picture of a movie star.....
289. Get a paper doll.....
290. Get some raisins.....
291. Get a toy doll.....
292. Get a bubble blower.....
293. That's perfect (spoken by teacher).....
294. Get a "mini-sandwich".....
295. That's perfect (written by teacher).....
296. Very nice (written by teacher).....
297. Very fine (written by teacher).....
298. Get a slinkie toy.....
299. Correct (spoken by teacher).....
300. Get second portions of lunch and dessert.....

301. Unbelievable (written by teacher).....
302. Excellent (spoken by teacher).....
303. Get some clay.....
304. Kicking a ball alone.....
305. Going to the swings alone.....
306. Marvelous (spoken by teacher).....
307. Weighing or measuring various objects in the
classroom alone.....
308. Far out (spoken by teacher).....
309. Fine (written by teacher).....
310. Making a mural alone.....
311. Get some play dough.....
312. Choosing the game for recess.....
313. Group game.....
314. Writing notes to other children.....
315. Teacher touches student on the hand.....
316. Get a cassette tape.....
317. Get some conservation stamps (to collect).....
318. Get some connectable plastic rings.....
319. Making puppets alone.....
320. Oh boy (spoken by teacher).....
321. Get some small candies.....
322. Right on (written by teacher).....
323. Get a toy checker game.....
324. Get a note pad.....
325. Participating in show-and-tell.....
326. Being read a story.....
327. Get a note book.....
328. Individual behavior and achievement card to
chart progress (with no back-up reinforcers).....
329. Choosing a song to sing for song time.....
330. Get some stationery.....
331. Individual behavior and achievement "bankbook"
(with back-up reinforcers).....
332. Poster with child's name where stars (stickers,
points, etc.) can be accumulated to chart pro-
gress (with no back-up reinforcers).....
333. Get some colored paper.....
334. Stringing beads alone.....
335. Reading a comic book to self.....
336. Get a comic book.....
337. Be in charge of putting up the school flag.....
338. Teacher rubs child's back.....
339. You've got the idea (spoken by teacher).....
340. That was kind of you (written by teacher).....
341. Line graph to chart progress (with back-up
reinforcers).....
342. Reading newspaper to self.....
343. Get a picture book.....
344. A band on desk with objects (e.g., animals, cars,
etc.) progressively colored in to chart progress
(with back-up reinforcers).....
345. Get a paperback book.....

346. You really pay attention (spoken by teacher).....
347. Playing with puppets alone.....
348. Be in charge of sequencing own school work.....
349. You have really improved (spoken by teacher).....
350. Picture graphs (child earns apples for trees,
eggs for basket, etc.) to chart progress (with
back-up reinforcers).....
351. Get a hard cover book.....
352. You really are innovative(spoken by teacher).....
353. Learning for a sense of competence.....
354. Get a "monster" book.....
355. Bar graph to chart progress (with no back-up
reinforcers).....
356. Punches on a card to chart progress (with no
back-up reinforcers).....
357. Get a teen magazine.....
358. Thats shows a lot of work(written by teacher)....
359. Help teacher pick out the group game to be
played.....
360. Using exercise equipment alone.....
361. Marks on paper or card on child's desk to chart
progress (with back-up reinforcers).....
362. Get free lunch ticket.....
363. Teacher sits next to student.....
364. Get ticket to sports event.....
365. Marks on a ladder with 50 steps to mark progress
(with back-up reinforcers).....
366. Using make-up kit alone.....
367. Playing in water and sand alone.....
368. Get sports magazine.....
369. Get ticket to leave the room without permission..
370. Using flashlight in darkened room alone.....
371. Being in group art activities.....
372. Get car magazine.....
373. Get ticket to a concert.....
374. Teacher holds class outside on hot day.....
375. Get ticket to a movie.....
376. Be in charge of selecting a story for story time.
377. Teacher walks beside student.....
378. Exactly (written by teacher).....
379. You really pay attention (written by teacher)....
380. Get a "monster" magazine.....
381. Get a felt pen.....
382. Working with flash cards alone.....
383. Good thinking (written by teacher).....
384. Individual behavior and achievement card to chart
progress (with back-up reinforcers).....
385. Working on crafts or models alone.....
386. Get some colored pencils.....
387. Get some crayons.....
388. Get a psychedelic poster.....
389. Be "line leader".....
390. You have really improved (written by teacher)....

391. Individual behavior and achievement "bankbook" (with no back-up reinforcers).....
392. Picture graph (child earns apples for tree, eggs for basket, etc.) to chart progress (with no back-up reinforcers).....
393. Get a pencil.....
394. Get ticket to swimming pool.....
395. Shooting cap pistol alone.....
396. Playing doll house alone.....
397. Line graph to chart progress (with no back-up reinforcers).....
398. You really are innovative (written by teacher)...
399. Nobody else thought of that (written by teacher).
400. That's better than last time (written by teacher)
401. Your explanation was crystal clear (spoken by teacher).....
402. Being a group leader.....
403. Give student personal time with teacher.....
404. Get plastic or paper flowers.....
405. Marks on ladder with 50 steps to chart progress (with no back-up reinforcers).....
406. Bar graph to chart progress (with back-up reinforcers).....
407. Be class time-keeper.....
408. Get some colored chalk.....
409. It's a pleasure having you in class (written by teacher).....
410. Get a magic marker.....
411. Punches on card to chart progress (with back-up reinforcers).....
412. A band on desk with objects (animals, cars etc.) progressively colored to chart progress (with no back-up reinforcers).....
413. I'm proud of you (written by teacher).....
414. Get a felt board.....
415. Gold stars put next to child's name on class chart to monitor progress (with back-up reinf.)..
416. I like that (spoken by teacher).....
417. Phone call to parents regarding good work.....
418. Get a puppet.....
419. The use of teacher's staplers, magic markers, desk, etc. in some personal project.....
420. Teacher arm wrestles child.....
421. Teacher joins student at recess in game.....
422. You are really creative (spoken by teacher).....
423. Marks on paper or card on child's desk to chart progress (with no back-up reinforcers).....
424. Get a deck of cards.....
425. Little-by-little we're getting their (written by teacher).....
426. Gold stars put next to child's name on class chart to monitor progress (with no back-up reinforcers).....

- 427. See how you're improving (spoken by teacher)..... _____
- 428. Poster with child's name where stars (stickers, points, etc.) can be accumulated to monitor progress (with back-up reinforcers)..... _____
- 429. Little-by-little we're getting there (spoken by teacher)..... _____
- 430. Play with same sex friends..... _____
- 431. Play with opposite sex friends..... _____

END

APPENDIX D
RATER RELIABILITIES OF REINFORCERS

CATEGORY: CONCRETE EDIBLE REWARDS

Exemplar	Rater Reliability
1. Get an apple.....	100%
2. Get some baby food.....	100%
3. Get a candy bar.....	100%
4. Get a carrot stick.....	100%
5. Get a celery stick.....	100%
6. Get some cereal.....	100%
7. Get some cheese.....	100%
8. Get a chocolate kiss.....	100%
9. Get a cookie.....	100%
10. Get a cracker.....	100%
11. Get a cupcake.....	100%
12. Get some fruit.....	100%
13. Get some fruit juice.....	100%
14. Get some grapes.....	100%
15. Get some gum.....	100%
16. Get some gumdrops.....	100%
17. Get some ice cream.....	100%
18. Get some jelly beans.....	100%
19. Get some kool-aid.....	100%
20. Get some lemon drops.....	100%
21. Get a lollipop.....	100%
22. Get some marshmallows.....	100%
23. Get some milk.....	100%
24. Get some mints.....	100%
25. Get some M&M's.....	100%
26. Get some olives.....	100%
27. Get some peanuts.....	100%
28. Get some popcorn.....	100%
29. Get some potatoe chips.....	100%
30. Get some pretzels.....	100%
31. Get some pudding.....	100%
32. Get a soft drink.....	100%
33. Get some raisins.....	100%

CATEGORY: CONCRETE EDIBLE REWARDS (continued)

Exemplar	Rater Reliability
34. Get a "mini-sandwich".....	100%
35. Get some small candies.....	100%
36. Get some pickles.....	90%
37. Get second portions of lunch and dessert.....	90%

CATEGORY: CONCRETE NON-EDIBLE REWARDS

Exemplar	Rater Reliability
1. Get a toy badge.....	100%
2. Get a balloon.....	100%
3. Get a toy boat.....	100%
4. Get an animal puzzle.....	100%
5. Get a puzzle (1000 pieces).....	100%
6. Get a padlock.....	100%
7. Get a bike lock.....	100%
8. Get marbles.....	100%
9. Get an eraser.....	100%
10. Get a model kit.....	100%
11. Get a toy figure (e.g., animal, soldier, cowboy).....	100%
12. Get a toy car.....	100%
13. Get a whistle.....	100%
14. Get a noisemaker.....	100%
15. Get a toy musical instrument.....	100%
16. Get a toy plane.....	100%
17. Get a kite.....	100%
18. Get a calendar.....	100%
19. Get a coloring book.....	100%
20. Get a record.....	100%
21. Get a funny mask.....	100%
22. Get a costume.....	100%
23. Get a frisbee.....	100%
24. Get a baseball card.....	100%
25. Get a football card.....	100%
26. Get some toy jacks.....	100%

CATEGORY: CONCRETE NON-EDIBLE REWARDS (continued)

Exemplar	Rater Reliability
27. Get a jump rope.....	100%
28. Get a toy magnet.....	100%
29. Get an address book.....	100%
30. Get a squirt gun.....	100%
31. Get a yo yo.....	100%
32. Get a paperweight.....	100%
33. Get a key chain.....	100%
34. Get some Scout equipment.....	100%
35. Get a piece of toy jewelry.....	100%
36. Get a school T-shirt.....	100%
37. Get a picture of a movie star.....	100%
38. Get a paper doll.....	100%
39. Get a toy doll.....	100%
40. Get a bubble blower.....	100%
41. Get a slinkie toy.....	100%
42. Get some clay.....	100%
43. Get some play dough.....	100%
44. Get a cassette tape.....	100%
45. Get some conservation stamps (to collect).....	100%
46. Get some connectable plastic rings.....	100%
47. Get a toy checker game.....	100%
48. Get a note pad.....	100%
49. Get a note book.....	100%
50. Get some stationery.....	100%
51. Get some colored paper.....	100%
52. Get a comic book.....	100%
53. Get a picture book.....	100%
54. Get a paperback book.....	100%
55. Get a hard cover book.....	100%
56. Get a "monster" book.....	100%
57. Get a teen magazine.....	100%
58. Get a sports magazine.....	100%
59. Get a car magazine.....	100%

CATEGORY: CONCRETE NON-EDIBLE REWARDS (continued)

Exemplar	Rater Reliability
60. Get a "monster" magazine.....	100%
61. Get a felt pen.....	100%
62. Get some colored pencils.....	100%
63. Get some crayons.....	100%
64. Get a psychedelic poster.....	100%
65. Get a pencil.....	100%
66. Get plastic or paper flowers.....	100%
67. Get some colored chalk.....	100%
68. Get a magic marker.....	100%
69. Get a felt board.....	100%
70. Get a puppet.....	100%
71. Get a deck of cards.....	100%
72. Get a ball.....	90%
73. Get some blocks.....	90%

CATEGORY: REDEEMABLE SYMBOLIC REWARDS

Exemplar	Rater Reliability
1. Get a redeemable poker chip.....	100%
2. Redeemable match sticks.....	100%
3. Redeemable coins.....	100%
4. Redeemable play money.....	100%
5. Redeemable checks.....	100%
6. Redeemable points.....	100%
7. Redeemable token.....	100%
8. Behavior and achievement charts which give visual evidence of progress and which <u>can be exchanged</u> for back-up reinforcers....	100%
9. Individual behavior and achievement "bankbook" (with back-up reinforcers).....	100%
10. Line graph to chart progress (with back-up reinforcers).....	100%
11. A band on desk with objects (e.g., animals, cars, etc.) progressively colored in to chart progress (with back-up reinforcers).....	100%

CATEGORY: REDEEMABLE SYMBOLIC REWARDS (continued)

Exemplar	Rater Reliability
12. Picture graphs (child earns apples for trees, eggs for basket, etc.) to chart progress (with back-up reinforcers).....	100%
13. Marks on paper or card on child's desk to chart progress (with back-up reinforcers).....	100%
14. Marks on a ladder with 50 steps to mark progress (with back-up reinforcers).....	100%
15. Individual behavior and achievement card to chart progress (with back-up reinforcers).....	100%
16. Punches on a card to chart progress (with back-up reinforcers).	100%
17. Gold stars put next to child's name on class chart to monitor progress (with back-up reinforcers).....	100%
18. Get a free lunch ticket.....	90%
19. Poster with child's name where stars (stickers, points, etc.) can be accumulated to monitor progress (with back-up reinforcers).....	90%
20. Get ticket to sports event.....	80%
21. Get ticket to concert.....	80%
22. Get ticket to a movie.....	80%
23. Get ticket to swimming pool.....	80%
24. Bar graph to chart progress (with back-up reinforcers).....	80%

CATEGORY: NON-REDEEMABLE SYMBOLIC REWARDS

Exemplar	Rater Reliability
1. Get a rubber stamp of animal pictures on good work.....	100%
2. Get a gold star.....	100%
3. Special award ribbon.....	100%
4. Get a special award tag.....	100%
5. Display child's picture for good work.....	100%
6. Display good work.....	100%
7. Behavior and achievement charts which give visual evidence of progress <u>with no back-up reinforcers</u>	100%
8. Individual behavior and achievement card to chart progress (with no back-up reinforcers).....	100%

CATEGORY: NON-REDEEMABLE SYMBOLIC REWARDS (continued)

9. Poster with child's name where stars (stickers, points, etc.) can be accumulated to chart progress (with no back-up reinforcers).....100%
10. Bar graph to chart progress (with no back-up reinforcers).....100%
11. Punches on card to chart progress (with no back-up reinforcers)100%
12. Individual behavior and achievement "bankbook" (with no back-up reinforcers).....100%
13. Picture graph (child earns apples for tree, eggs for basket, etc.) to chart progress (with no back-up reinforcers).....100%
14. Line graph to chart progress (with no back-up reinforcers).....100%
15. Marks on ladder with 50 steps to chart progress (with no back-up reinforcers).....100%
16. A band on desk with objects (animals, cars, etc.) progressively colored to chart progress (with no back-up reinforcers).100%
17. Marks on paper or card on child's desk to chart progress (with no back-up reinforcers).....100%
18. Gold stars put next to child's name on class chart to monitor progress (with no back-up reinforcers).....100%
19. Get a good grade.....90%
20. Get double "A's".....90%
21. Get smiling face put on paper.....90%
22. Get special award button.....90%
23. Name on honor roll.....90%
24. Special award certificate.....80%
25. Special award diploma.....80%

CATEGORY: ORAL COMMUNICATION REWARDS

Exemplar

Rater Reliability

1. I agree (spoken by teacher).....100%
2. I feel good when you do well (spoken by teacher).....100%
3. That shows a lot of work (spoken by teacher).....100%
4. Good job (spoken by teacher).....100%
5. Good work (spoken by teacher).....100%
6. Wonderful (spoken by teacher).....100%

CATEGORY: ORAL COMMUNICATION REWARDS (continued)

Exemplar	Rater Reliability
7. Fine answer (spoken by teacher).....	100%
8. Yeah (spoken by teacher).....	100%
9. You do that well (spoken by teacher).....	100%
10. Right on (spoken by teacher).....	100%
11. How clever (spoken by teacher).....	100%
12. That was kind of you (spoken by teacher).....	100%
13. Exactly (spoken by teacher).....	100%
14. That's interesting (spoken by teacher).....	100%
15. I am proud of you (spoken by teacher).....	100%
16. It's a pleasure having you in class (spoken by teacher).....	100%
17. Good for you (spoken by teacher).....	100%
18. Great (spoken by teacher).....	100%
19. Fantastic (spoken by teacher).....	100%
20. Much better (spoken by teacher).....	100%
21. Outstanding (spoken by teacher).....	100%
22. That's nice (spoken by teacher).....	100%
23. Very fine (spoken by teacher).....	100%
24. Unbelievable (spoken by teacher).....	100%
25. Thank you (spoken by teacher).....	100%
26. Nobody else thought of that (spoken by teacher).....	100%
27. That's better than last time (spoken by teacher).....	100%
28. Okay (spoken by teacher).....	100%
29. Yes (spoken by teacher).....	100%
30. Atta-boy or Atta-girl (spoken by teacher).....	100%
31. Very good (spoken by teacher).....	100%
32. Good idea (spoken by teacher).....	100%
33. Right (spoken by teacher).....	100%
34. Superb (spoken by teacher).....	100%
35. Sterling (spoken by teacher).....	100%
36. Nice (spoken by teacher).....	100%
37. Very nice (spoken by teacher).....	100%
38. Terrific (spoken by teacher).....	100%

CATEGORY: ORAL COMMUNICATION REWARDS (continued)

Exemplar	Rater Reliability
39. Fine (spoken by teacher).....	100%
40. Correct (spoken by teacher).....	100%
41. Excellent (spoken by teacher).....	100%
42. Marvelous (spoken by teacher).....	100%
43. Far out (spoken by teacher).....	100%
44. Oh boy (spoken by teacher).....	100%
45. You've got the idea (spoken by teacher).....	100%
46. You really pay attention (spoken by teacher).....	100%
47. You have really improved (spoken by teacher).....	100%
48. You are really innovative (spoken by teacher).....	100%
49. Your explanation was crystal clear (spoken by teacher).....	100%
50. I like that (spoken by teacher).....	100%
51. You are really creative (spoken by teacher).....	100%
52. See how you're improving (spoken by teacher).....	100%
53. Little-by-little we're getting there (spoken by teacher).....	100%
54. Phone call to parents regarding good work.....	90%
55. That's perfect (spoken by teacher).....	80%

CATEGORY: WRITTEN COMMUNICATION REWARDS

Exemplar	Rater Reliability
1. I agree (written by teacher).....	100%
2. See how you're improving (written by teacher).....	100%
3. Teacher sends note home regarding good behavior.....	100%
4. Atta-boy or atta-girl (written by teacher).....	100%
5. Oh boy (written by teacher).....	100%
6. Good work (written by teacher).....	100%
7. Very good (written by teacher).....	100%
8. I feel good when you do well (written by teacher).....	100%
9. Wow (written by teacher).....	100%
10. Okay (written by teacher).....	100%
11. Beautiful (written by teacher).....	100%
12. That's interesting (written by teacher).....	100%
13. You do that well (written by teacher).....	100%
14. You've got the right idea (written by teacher).....	100%

CATEGORY: WRITTEN COMMUNICATION REWARDS (continued)

Exemplar	Rater Reliability
15. I like that (written by teacher).....	100%
16. Good idea (written by teacher).....	100%
17. Great (written by teacher).....	100%
18. Good job (written by teacher).....	100%
19. Yes (written by teacher).....	100%
20. Right (written by teacher).....	100%
21. Superb (written by teacher).....	100%
22. Nice (written by teacher).....	100%
23. Far out (written by teacher).....	100%
24. Correct (written by teacher).....	100%
25. Excellent (written by teacher).....	100%
26. Marvelous (written by teacher).....	100%
27. Thank you (written by teacher).....	100%
28. Your explanation was crystal clear (written by teacher).....	100%
29. You are really creative (written by teacher).....	100%
30. Yeah (written by teacher).....	100%
31. Fine answer (written by teacher).....	100%
32. Wonderful (written by teacher).....	100%
33. Good for you (written by teacher).....	100%
34. Fantastic (written by teacher).....	100%
35. Much better (written by teacher).....	100%
36. Outstanding (written by teacher).....	100%
37. Terrific (written by teacher).....	100%
38. That's perfect (written by teacher).....	100%
39. Very nice (written by teacher).....	100%
40. Very fine (written by teacher).....	100%
41. Unbelievable (written by teacher).....	100%
42. Fine (written by teacher).....	100%
43. Right on (written by teacher).....	100%
44. That was kind of you (written by teacher).....	100%
45. That shows a lot of work (written by teacher).....	100%
46. Exactly (written by teacher).....	100%
47. You really pay attention (written by teacher).....	100%

CATEGORY: WRITTEN COMMUNICATION REWARDS (continued)

Exemplar	Rater Reliability
48. Good thinking (written by teacher).....	100%
49. You have really improved (written by teacher).....	100%
50. You really are innovative (written by teacher).....	100%
51. That's better than the last time (written by teacher).....	100%
52. Nobody else thought of that (written by teacher).....	100%
53. It's a pleasure having you in class (written by teacher).....	100%
54. I'm proud of you (written by teacher).....	100%
55. Little-by-little we're getting there (written by teacher).....	100%
56. Teacher signs good paper.....	90%
57. Sterling (written by teacher).....	90%

CATEGORY: CLOSE BODY COMMUNICATION REWARDS

Exemplar	Rater Reliability
1. Shake hands with teacher.....	100%
2. Teacher holds child's hand.....	100%
3. Teacher holds child on lap.....	100%
4. Teacher hugs child.....	100%
5. Teacher kisses child.....	100%
6. Teacher gives child a pat on the back.....	100%
7. Teacher gives child a pat on the head.....	100%
8. Teacher gives child a pat on the knee.....	100%
9. Teacher gives child a pat on the shoulder.....	100%
10. Teacher puts hand on student's shoulder.....	100%
11. Teacher ruffles student's hair.....	100%
12. Teacher strokes student's arm.....	100%
13. Teacher tickles child.....	100%
14. Teacher touches child on the cheek.....	100%
15. Teacher touches student on hand.....	100%
16. Teacher rubs child's back.....	100%
17. Teacher arm wrestles child.....	80%

CATEGORY: DISTANT BODY COMMUNICATION REWARDS

Exemplar	Rater Reliability
1. Teacher claps hands (i.e., applauds).....	100%
2. Teacher nods head up and down.....	100%
3. Teacher orienting glance directly toward child's face.....	100%
4. Teacher gives signal or gesture of approval.....	100%
5. Teacher smiles at child.....	100%
6. Teacher throws child a kiss.....	100%
7. Teacher winks at child.....	100%
8. Teacher sits next to student.....	60%
9. Teacher walks beside student.....	60%

CATEGORY: ACTIVITY REWARDS

Exemplar	Rater Reliability
1. Watching TV alone.....	100%
2. Listening to story record with headset.....	100%
3. Get to make a puzzle alone.....	100%
4. Going to an assembly program.....	100%
5. Being in a skit.....	100%
6. Using the telephone.....	100%
7. Playing charades.....	100%
8. Using colored chald alone.....	100%
9. Listening to the radio or phonograph with headset.....	100%
10. Take a nap.....	100%
11. Dancing.....	100%
12. Using a typewriter.....	100%
13. Looking at a teen magazine.....	100%
14. Blowing bubbles alone.....	100%
15. Blowing up a balloon.....	100%
16. Student drawing on steamed-up windows with finger.....	100%
17. Playing tic-tac-toe.....	100%
18. Rocking in a rocking chair.....	100%
19. Using a view master.....	100%
20. Reading a library book silently.....	100%
21. Using a punching bag alone.....	100%
22. Playing pinball alone.....	100%

CATEGORY: ACTIVITY REWARDS (continued)

Exemplar	Rater Reliability
23. Playing checkers.....	100%
24. Walking barefoot alone.....	100%
25. Playing with trucks alone.....	100%
26. Kicking a ball alone.....	100%
27. Going on the swings alone.....	100%
28. Making a mural alone.....	100%
29. Making puppets alone.....	100%
30. Being read a story.....	100%
31. Stringing beads alone.....	100%
32. Reading a comic book to self.....	100%
33. Reading a newspaper to self.....	100%
34. Playing with puppets alone.....	100%
35. Using exercise equipment alone.....	100%
36. Using a make-up kit alone.....	100%
37. Playing in water or sand alone.....	100%
38. Using a flashlight in darkened room alone.....	100%
39. Working on crafts or models alone.....	100%
40. Shooting a cap pistol alone.....	100%
41. Playing doll house alone.....	100%
42. Weighing or measureing various objects in the classroom.....	100%
43. Use microscope alone.....	90%
44. Make construction projects alone.....	90%
45. Doing artwork alone.....	90%
46. Celebrating a holiday in class.....	90%
47. Being a pen pal.....	90%
48. Having a box lunch auction.....	90%
49. Writing a letter.....	90%
50. Free time to work on projects.....	90%
51. Using portable computer alone.....	90%
52. Putting head down and resting.....	90%
53. Being first at show-and-tell.....	90%
54. Talking to a classmate.....	90%
55. Playing piano alone.....	90%
56. Cutting and pasting alone.....	90%

CATEGORY: ACTIVITY REWARDS (continued)

Exemplar	Rater Reliability
57. Working with flash cards alone.....	90%
58. Walking around in back of the room alone.....	80%
59. Telling a joke to the class.....	80%
60. Extension or inclusion of enjoyable classroom activities such as gym, art, music and recess.....	80%
61. Extra library time.....	80%
62. Being part of a supervised Tug of War.....	80%
63. The use of teacher's staplers, magic markers, desk, etc. in some personal project.....	80%
64. Teacher joins students at recess in game.....	80%
65. Play with opposite sex friends.....	80%
66. Play with same sex friends.....	80%
67. Looking out the window.....	70%
68. Class party.....	70%
69. Singing in a group.....	70%
70. Writing notes to other children.....	70%
71. Participating in show-and-tell.....	70%
72. Being in group art activities.....	70%
73. Give student personal time with teacher.....	70%
74. Performing for parents.....	60%
75. Going on field trip with the class.....	60%
76. Being part of a group discussion.....	60%
77. Getting to move seat to a "better" place.....	60%
78. Get extra lunch time.....	60%

CATEGORY: RESPONSIBILITY REWARDS

Exemplar	Rater Reliability
1. Window manager.....	100%
2. Bathroom supervisor at end of recess.....	100%
3. Be in charge of room clean-up.....	100%
4. Teaching another child (i.e., designated tutor).....	100%
5. Can be a member of the class council.....	100%
6. Being a group leader.....	100%

CATEGORY: RESPONSIBILITY REWARDS (continued)

Exemplar	Rater Reliability
7. Child makes up a quiz, administers it to the rest of the class, and then scores and grades it.....	100%
8. Be manager of the class store.....	100%
9. Conducting some class activity (e.g., an auction, show-and-tell, leading class in flag salute).....	100%
10. Be classroom "media helper" (e.g., run projector).....	100%
11. Appearing as a guest lecturer in other classes.....	100%
12. Be in charge of passing out papers and other class materials...	100%
13. Helping the librarian.....	100%
14. Supervising a group outside of class.....	100%
15. Being the class messenger.....	100%
16. Special jobs assigned to student (e.g., roll taker, bulletin board designer, blackboard and eraser cleaner).....	100%
17. Be in charge of putting up the school flag.....	100%
18. Be in charge of sequencing own school work.....	100%
19. Be "line leader".....	100%
20. Be class time keeper.....	100%
21. Shopping for the class store.....	90%
22. Helping the custodian.....	90%
23. Helping in the cafeteria.....	90%
24. Being teacher for a lesson.....	90%
25. Correcting papers for teacher.....	90%
26. Being stage manager for class play.....	90%
27. Be in charge of selecting a story for story time.....	90%
28. Being team captain.....	70%
29. Help teacher pick out the group game to be played.....	60%

CATEGORY: SHARED REWARDS

Exemplar	Rater Reliability
1. Earn small toy for sibling.....	100%
2. Earn small toy for disadvantaged children.....	100%
3. Earn small toy for friend.....	100%
4. Help earn a field trip for the class.....	100%
5. Earn "points" for a group.....	90%

CATEGORY: SHARED REWARDS (continued)

Exemplar	Rater Reliability
6. Being able to attend other subject area classes for the group.....	70%

CATEGORY: ESCAPE REWARDS

Exemplar	Rater Reliability
1. Get out of class early.....	100%
2. Early dismissal to be first in line for busses.....	100%
3. Exemption from a quiz.....	100%
4. Being excused from a test.....	100%
5. Get to go home early.....	90%
6. Early dismissal to be first in line for lunch.....	90%
7. Free "thinking" time instead of doing work.....	90%
8. During nap time, the child is allowed to play instead of napping.....	70%

CATEGORY: INTRINSIC REWARDS

Exemplar	Rater Reliability
1. Learn for the love of it.....	100%
2. Working for a sense of competence.....	100%
3. Learning just for itself.....	100%
4. Learning for its own reward.....	100%
5. Learning for a sense of competence.....	100%

CATEGORY: UNCLASSIFIED (not rated in one category by at least 60%)

Exemplar	Category Symbols of Rated Categories
1. Daydreaming time.....	A,E
2. Showing pictures to the class.....	A,R,S
3. Creative writing.....	A,I
4. Choosing game for recess.....	A,R,S
5. Group game.....	A,S
6. Choosing song to sing for song time.....	A,R,S
7. Get ticket to leave the room without permission.....	RS,CN,E
8. Teacher holds class outside on hot day.....	A,S,E,I

APPENDIX E
SURVEY FORMS¹

¹Note: Only the face sheets are presented after the first complete survey is given. Only the face sheets of the surveys varied for the different experimental levels.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

CATEGORY NAMES AND DEFINITIONS

(This page is removable to make it easier to refer back to as you work.)

CONCRETE EDIBLE REWARDS: This category contains all substances which are normally taken into the human body. For example, the teacher might reward a student by giving the student a piece of candy, a donut, a cola, or a gumdrop.

CONCRETE NON-EDIBLE REWARDS: This category contains all tangible objects which are not usually taken into the human body. They are not presented as symbolizing something beyond themselves. For example, the teacher might reward a student by giving the student some crayons, a pencil, a comic book, a small toy or a record. Non-examples are stars, tokens or certificates of merit.

REDEEMABLE SYMBOLIC REWARDS: This category contains all objects and symbols which can be earned and subsequently exchanged for a reinforcer from another category. For example, the teacher might give a student a token (i.e. a poker chip, tally mark, colored stick, etc.) which the student can later exchange. Graphs and charts indicating achievement levels are also contained in this category providing the student can select a reward from another category when a designated point on the graph or chart is reached.

NON-REDEEMABLE SYMBOLIC REWARDS: This category contains all objects and symbols which are symbolic of desired performance but which cannot be redeemed for a reinforcer from another category. For example, the teacher might make a graph of good behavior without any other rewards. Or, the teacher might give the student a star, a good grade, a check mark, or a happy face sticker.

ORAL COMMUNICATION REWARDS: This category contains all positive teacher verbalizations such as "that's great", "good job", "fine answer" or "super".

WRITTEN COMMUNICATION REWARDS: This category contains all positive written words. For example, the teacher might write "that's great", "good job", "fine answer" or "super" on a good paper. Or the teacher might send a positive note home concerning good work.

CLOSE BODY COMMUNICATION REWARDS: This category contains all physical gestures or "body language" which involves actual physical contact. For example, the teacher might reward a student by giving the student a pat on the back, a hug, a tickle, a handshake, or a kiss.

DISTANT BODY COMMUNICATION REWARDS: This category contains all physical gestures or "body language" which can be understood without physical contact. For example, the teacher might reward a student by giving the student a smile, a nod, a wink, or a "thumbs up" sign.

ACTIVITY REWARDS: This category contains all play activities. For example, the teacher might reward a student by letting the student talk to a friend, play a game, read, or nap.

RESPONSIBILITY REWARDS: This category includes "adult-like" responsibilities given to a student as a reward such as safety patrol member, line monitor, tutoring other children, or classroom pet caretaker.

SHARED REWARDS: This category contains any reward which when obtained is shared or given away. For example, the teacher might reward a student by letting the student earn a small toy for a sibling or disadvantaged child. Also included here is the situation where a student wins points (or something else) for a group of which he is a member.

ESCAPE REWARDS: This category includes privileges which allow a student to avoid an aversive situation or event. For example, the teacher might reward a student by exempting the student from a test, eliminating a homework assignment, or early dismissal from class.

INTRINSIC REWARDS: This category contains those cases in which the student is doing a task which he or she finds enjoyable all by itself. Examples are "learning for learning's sake", and "working for a sense of competence".

REMINDER: CIRCLE THE LETTER OF THE PHRASE YOU THINK THE STUDENT WOULD CHOOSE.

- | | |
|---|---|
| 1A. Written Communication Rewards | 26A. Redeemable Symbolic Rewards |
| 1B. Shared Rewards | 26B. Written Communication Rewards |
| 2A. Concrete Non-Edible Rewards | 27A. Concrete Edible |
| 2B. Redeemable Symbolic Rewards | 27B. Distant Body Communication Rewards |
| 3A. Escape Rewards | 28A. Non-Redeemable Symbolic Rewards |
| 3B. Shared Rewards | 28B. Distant Body Communication Rewards |
| 4A. Responsibility Rewards | 29A. Oral Communication Rewards |
| 4B. Redeemable Symbolic Rewards | 29B. Written Communication Rewards |
| 5A. Close Body Communication Rewards | 30A. Close Body Communication Rewards |
| 5B. Responsibility Rewards | 30B. Distant Body Communication Rewards |
| 6A. Activity Rewards | 31A. Distant Body Communication Rewards |
| 6B. Oral Communication Rewards | 31B. Oral Communication Rewards |
| 7A. Intrinsic Rewards | 32A. Close Body Communication Rewards |
| 7B. Oral Communication Rewards | 32B. Activity Rewards |
| 8A. Oral Communication Rewards | 33A. Non-Redeemable Symbolic Rewards |
| 8B. Responsibility Rewards | 33B. Written Communication Rewards |
| 9A. Concrete Non-Edible Rewards | 34A. Written Communication Rewards |
| 9B. Responsibility Rewards | 34B. Distant Body Communication Rewards |
| 10A. Redeemable Symbolic Rewards | 35A. Redeemable Symbolic Rewards |
| 10B. Escape Rewards | 35B. Oral Communication Rewards |
| 11A. Intrinsic Rewards | 36A. Close Body Communication Rewards |
| 11B. Written Communication Rewards | 36B. Concrete Edible Rewards |
| 12A. Concrete Non-Edible Rewards | 37A. Close Body Communication Rewards |
| 12B. Shared Rewards | 37B. Redeemable Symbolic Rewards |
| 13A. Non-Redeemable Symbolic Rewards | 38A. Concrete Non-Edible Rewards |
| 13B. Close Body Communication Rewards | 38B. Escape Rewards |
| 14A. Close Body Communication Rewards | 39A. Non-Redeemable Symbolic Rewards |
| 14B. Shared Rewards | 39B. Activity Rewards |
| 15A. Redeemable Symbolic Rewards | 40A. Redeemable Symbolic Rewards |
| 15B. Shared Rewards | 40B. Non-Redeemable Symbolic Rewards |
| 16A. Shared Rewards | 41A. Intrinsic Rewards |
| 16B. Concrete Edible Rewards | 41B. Close Body Communication Rewards |
| 17A. Concrete Edible Rewards | 42A. Intrinsic Rewards |
| 17B. Redeemable Symbolic Rewards | 42B. Responsibility Rewards |
| 18A. Concrete Non-Edible Rewards | 43A. Concrete Non-Edible Rewards |
| 18B. Activity Rewards | 43B. Oral Communication Rewards |
| 19A. Concrete Edible Rewards | 44A. Distant Body Communication Rewards |
| 19B. Written Communication Rewards | 44B. Intrinsic Rewards |
| 20A. Oral Communication Rewards | 45A. Intrinsic Rewards |
| 20B. Close Body Communication Rewards | 45B. Shared Rewards |
| 21A. Redeemable Symbolic Rewards | 46A. Responsibility Rewards |
| 21B. Distant Body Communication Rewards | 46B. Concrete Edible Rewards |
| 22A. Concrete Edible Rewards | 47A. Intrinsic Rewards |
| 22B. Concrete Non-Edible Rewards | 47B. Redeemable Symbolic Rewards |
| 23A. Intrinsic Rewards | 48A. Escape Rewards |
| 23B. Concrete Edible Rewards | 48B. Intrinsic Rewards |
| 24A. Written Communication Rewards | 49A. Activity Rewards |
| 24B. Close Body Communication Rewards | 49B. Written Communication Rewards |
| 25A. Activity Rewards | 50A. Responsibility Rewards |
| 25B. Intrinsic Rewards | 50B. Non-Redeemable Symbolic Rewards |

- | | |
|---|--------------------------------------|
| 51A. Shared Rewards | 76A. Concrete Non-Edible Rewards |
| 51B. Responsibility Rewards | 76B. Written Communication Rewards |
| 52A. Escape Rewards | 77A. Escape Rewards |
| 52B. Activity Rewards | 77B. Concrete Edible Rewards |
| 53A. Intrinsic Rewards | 78A. Non-Redeemable Symbolic Rewards |
| 53B. Concrete Non-Edible Rewards | 78B. Concrete Non-Edible |
| 54A. Shared Rewards | |
| 54B. Distant Body Communication Rewards | |
| 55A. Activity Rewards | |
| 55B. Shared Rewards | |
| 56A. Shared Rewards | |
| 56B. Non-Redeemable Symbolic Rewards | |
| 57A. Escape Rewards | |
| 57B. Written Communication Rewards | |
| 58A. Distant Body Communication Rewards | |
| 58B. Escape Rewards | |
| 59A. Activity Rewards | |
| 59B. Concrete Edible Rewards | |
| 60A. Escape Rewards | |
| 60B. Close Body Communication Rewards | |
| 61A. Concrete Non-Edible Rewards | |
| 61B. Distant Body Communication Rewards | |
| 62A. Oral Communication Rewards | |
| 62B. Shared Rewards | |
| 63A. Responsibility Rewards | |
| 63B. Escape Rewards | |
| 64A. Intrinsic Rewards | |
| 64B. Non-Redeemable Symbolic Rewards | |
| 65A. Concrete Edible Rewards | |
| 65B. Oral Communication Rewards | |
| 66A. Responsibility Rewards | |
| 66B. Written Communication Rewards | |
| 67A. Non-Redeemable Symbolic Rewards | |
| 67B. Oral Communication Rewards | |
| 68A. Concrete Edible Rewards | |
| 68B. Non-Redeemable Symbolic Rewards | |
| 69A. Redeemable Symbolic Rewards | |
| 69B. Activity Rewards | |
| 70A. Responsibility Rewards | |
| 70B. Activity Rewards | |
| 71A. Concrete Non-Edible Rewards | |
| 71B. Close Body Communication Rewards | |
| 72A. Escape Rewards | |
| 72B. Non-Redeemable Symbolic Rewards | |
| 73A. Oral Communication Rewards | |
| 73B. Escape Rewards | |
| 74A. Responsibility Rewards | |
| 74B. Distant Body Communication Rewards | |
| 75A. Activity Rewards | |
| 75B. Distant Body Communication Rewards | |

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a THIRD GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a THIRD GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?.....

How many years have you taught that grade?.....

How many years have you worked as a teacher?.....

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement:
Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a THIRD GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a THIRD GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a THIRD GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- (1A.) Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a THIRD GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- ①A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?.....
 How many years have you taught that grade?.....
 How many years have you worked as a teacher?.....

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
 1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a THIRD GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a THIRD GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

What grade are you presently teaching?..... _____

How many years have you taught that grade?..... _____

How many years have you worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a **THIRD GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.**

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- ①A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a **THIRD GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.**

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH AVERAGE ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

. Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a THIRD GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a THIRD GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on himself is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH OVERCONTROLLED, SHY-ANXIOUS BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?.....
 How many years have you worked as a school psychologist?.....
 Have you ever worked as a teacher?.....

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a THIRD GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
 1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a THIRD GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

①A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems. However, his tendency to take frustrations out on others is worrisome to his teacher.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH UNDERCONTROLLED, ACTING OUT BEHAVIOR.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a KINDERGARTEN BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a KINDERGARTEN BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a THIRD GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

- 1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a THIRD GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?..... _____

How many years have you worked as a school psychologist?..... _____

Have you ever worked as a teacher?..... _____

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a SIXTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement: Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a SIXTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

Mr. Mrs. Ms.: _____ PHONE: _____

With which grade levels are you presently working?.....
 How many years have you worked as a school psychologist?.....
 Have you ever worked as a teacher?.....

DIRECTIONS

Defined on the next page are thirteen categories of reinforcers or rewards which can be administered by a teacher. The aim of this scale is to determine which of these categories you expect would be most preferred by a NINTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

The student is a Caucasian with middle income level parents. Home-school relations are good. The student is in a regular education program and has no serious behavior problems.

In filling out the scale, use the following definition of reinforcement:
Behavior by a teacher following student response for the purpose of strengthening or accelerating appropriate behavior.

The exercise is designed as a "paired comparisons" task. All of the categories have been paired with each other. In each case, choose one of the two pairs. Circle the letter in front of the category you expect would be most preferred by the student. Thus, in the following example, if you believe the student would prefer category "X" to category "Y", the item would be marked like this:

1A. Category "X"
 1B. Category "Y"

Go rapidly but carefully. Do not go back once you have marked an item. There are no repetitions of pairs. In cases of difficulty, let first impressions count.

Remember: Read the category definitions carefully. Then, choose the one category in each of the pairs which you expect would be most preferred by a NINTH GRADE BOY WITH JUST BARELY PASSING ACADEMIC ACHIEVEMENT.

That is, mark the one you think the student would mark if the student were doing this exercise.

MICHIGAN STATE UNIV. LIBRARIES



31293009926142